The Dietetics Workforce Reports

A research report series from Vitae Arete LLC

The complete dossier: the introduction and Reports 1 to 10.

These reports are self-published and are not journal publications. Each carries its own status note, validity gate result and dated verification sheet, and each is deposited with its own persistent identifier. This combined file is a convenience copy; the individual reports are the citable form.

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How to read a number in this series

Every figure travels with three things: its vintage (the year, survey reference date or the date a page was read), its basis (facility or non-facility, total or work relative value units, the schedule amount or the 85 percent a dietitian is paid, persons or jobs), and the report that owns it. The Introduction carries the shared exhibits so that no figure is stated against two different bases. Where a claim is that something was not found, it is written as a search: what was searched, where, and on what date.

Introduction

Introduction, shared background and executive summary

The Dietetics Workforce Reports, Introduction, version 1.2 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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Released. September 29, 2026, version 1.0. Version 1.1, September 30, 2026, adds the author's commentary section on demand for nutrition expertise and dietitian pay, which points to Report 9, and adds Reports 9 and 10 to the version history; no exhibit, table or finding changed. Version 1.2, October 22, 2026, appends dated corrections and an update line (see Corrections) and brings the version history and references up to date; no exhibit value or finding changed.

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In brief

What the series asks. Now that dietetics requires a graduate degree, what does the public record show about who enters the field, what dietitians are paid, what students can borrow, and what Medicare pays for?

What it finds. Dietetics raised its entry degree in 2024. In the federal wage survey for May 2025, dietitians are paid least of seven clinical occupations; dietetics was left off the 2026 list of programs with higher federal loan limits; and Medicare's limits on the benefit dietitians deliver have not been formally reconsidered since 2002 and 2011. The reports set these facts side by side; they do not claim that one caused another.

What it adds. These facts sit in separate public files and rules, and several figures in circulation, some of them the author's own, were stale or wrong. This series dates and sources each one.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed, in which every number in the text, other than calendar years and identifiers, was matched by the validity gate to a value in the author's working files for the companion reports or in this report's source records, and AI review agents read the text separately for statistics, sources, consistency and disclosure; a validity gate of 399 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

What this report asks

This report is the frame for *The Dietetics Workforce Reports*, a series of companion reports each read from public records that anyone can check. Read together, the series asks one question: now that dietetics requires a graduate degree, what does the public record show about who enters the profession, where practitioners list practice locations, what Medicare covers and pays for their work, and what they are paid, relative to the professions beside them and to the cost of the degree now required?

This report does not argue a new finding. Its job is to say what the series asks; to carry the ten reference exhibits the other reports draw on, so that no figure is stated twice against two different bases; to hold the series version history; and to carry a dated reconciliation note correcting figures the author provided to an Academy of Nutrition and Dietetics workforce task force before this series existed. Version 1.1 adds one section of the author's commentary, on demand for nutrition expertise and dietitian pay; it is labelled as commentary, and Report 9 checks one form of its argument.

Key findings

This report presents no new empirical finding. It sets four findings of the companion reports side by side, as the Discussion does; no report in the series claims that one caused another.

- **Entry.** The Commission on Dietetic Registration's graduate-degree requirement for registration eligibility first bound candidates on January 1, 2024 (Exhibit B9; Report 1).
- **Pay.** In the federal wage survey for May 2025, dietitians had the lowest mean and the lowest median annual wage of the seven clinical occupations in Exhibit B1; at the mean the dietitian wage is 73.3 percent of the physical therapist wage (Report 4).

- **Borrowing.** For periods of instruction beginning on or after July 1, 2026, federal limits for graduate study outside the professional degree category are $20,500 a year and $100,000 in aggregate, against $50,000 and $200,000 inside it (Exhibit B5). The Department of Education's final rule of May 1, 2026, left dietetics outside the category (Reports 6 and 7).
- **Medicare.** As Report 3 read the record to September 11, 2026, the limit on nutrition therapy hours had not been formally reconsidered since 2002, nor the preventive counseling determinations since 2011.

Plain-language summary

This is the introduction to a series of research reports about the dietetics workforce in the United States: who trains to become a registered dietitian, where dietitians list their practice locations, what Medicare covers and pays for nutrition counseling, and how dietitian pay compares with other health professions and with the cost of the graduate degree now required. This report does not present new results. It sets out the numbers and definitions that every report in the series uses, in one place, so the same figure is never quoted two different ways in two different reports. It also corrects three figures the author sent to a professional association's workforce task force in July 2026, before this series was complete.

The sentence to repeat: dietetics now requires a graduate degree; dietitians are paid least of seven clinical occupations in the federal wage survey; their degree does not qualify for the higher federal loan limits; and Medicare's limits on nutrition therapy and counseling have not been formally reconsidered since 2002 and 2011.

Abstract

Background. Figures on the dietetics workforce in circulation, some of them the author's own, have been stale, wrong or printed without their date or basis, and the facts sit in separate public files and rules.

Objective. To open *The Dietetics Workforce Reports*, which ask what the public record shows about entering, being paid in and being reimbursed as a dietitian in the United States now that a graduate degree is required, and to state once the figures the companion reports share.

Methods. A series frame, not a study. Ten reference exhibits each state their own date, basis and source: a wage benchmark (B1); four workforce counts (B2); sex composition (B3); the accreditor's enrollment and graduate series (B4); credential cost and financing constants (B5); consumer prices (B6); the calendar year 2026 Medicare nutrition therapy amounts, re-derived at build time from the conversion factor and relative value file (B7); chronic-disease prevalence (B8); four entry-credential rules (B9); and a map of the companion reports (B10).

Results. The companion reports show that dietetics' graduate-degree requirement first bound candidates on January 1, 2024; that in the federal wage survey for May 2025 dietitians had the lowest mean and median wage of the seven clinical occupations in Exhibit B1; that the 2026 federal rule left dietetics outside the professional degree borrowing category; and that Medicare's hours limit and preventive counseling determinations have not been formally reconsidered since 2002 and 2011. Three figures the author gave an Academy of Nutrition and Dietetics workforce task force in July 2026 are corrected.

Conclusions. The reports set these facts side by side and claim no cause. Each shared figure is stated once, with its date, basis and owning report. It characterizes no body and attributes no motive.

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of the profession this series analyzes. He owns Vitae Arete LLC, which publishes this report series and offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce, including on dietitian pay relative to other health professions, and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; this report describes federal instruments that bear on those proposals, including the borrowing limits and the eligibility rules for loan forgiveness, and it does not evaluate the proposals or supply evidence that they should be adopted. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He repays federal student loans and is enrolled in Public Service Loan Forgiveness, which Report 6 discusses. Apart from those

loans and his employment by AdventHealth, which sponsors that internship and operates AdventHealth University, which offers programs in physical therapy and nursing, he has no financial relationship with any lender, university, or accredited program in any of the professions compared in this series, and has received no payment from any third party in connection with this work. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this report (see How this report was checked). He is credentialed by the Commission on Dietetic Registration, which this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

Funding

None. The author received no financial support for the research, authorship or publication of this report.

Introduction

The Dietetics Workforce Reports asks one question in four parts: now that dietetics requires a graduate degree, what does the public record show about who enters the profession, where practitioners list practice locations, what Medicare covers and pays for their work, and what they are paid, relative to the professions beside them and to the cost of the degree now required? The facts sit in separate public files and rules, and figures in circulation, some of them the author's own, have been stale, wrong or printed without their date or basis. The series dates and sources each one, reading every part from records a reader can retrieve.

The reports are companions, released together where their own final checks permit. Each is descriptive and states plainly what it does not show. This report is the introduction, the series frame.

Reports 1 and 2 take the first two parts. Report 1 measures degree production across thirteen graduate-entry health professions, several of which raised their entry credential inside the observation window, and locates dietetics against the federal professional-degree borrowing category. Report 2 sets county dietitian practice locations against chronic-disease prevalence and rurality, with a negative control to test whether the pattern is nutrition-specific. Report 3 takes the third part. It asks which legal instrument holds each limit on Medicare's nutrition therapy benefit, whether each limit has ever been formally reconsidered, and what the fee-for-service claims files show. Reports 4, 5 and 6 take the fourth. Report 4 asks which federal wage estimate to cite at all, and what the two candidate surveys do and do not cover. Report 5 reads dietitian and physiotherapist scheduled rates inside statutory pay-equity instruments in seven public systems. Report 6 works out what the 2026 federal professional-degree classification and the 2024 graduate-degree registration requirement together do to the arithmetic of entering the profession.

Report 7 reads the public rulemaking record behind the classification Report 6 prices: what was filed, what the Department answered, and what the record does not show. A further report, Report 8, reads a second and separate set of public pay instruments; it ships with this release, and Exhibit B10 gives its status.

The reports draw on one another's figures. A reader who opens Report 6 first meets a wage ratio, a federal borrowing limit and a living-cost budget, and none of the three is derived there. The wage ratio is Report 4's. The borrowing limit is Report 1's reading of the statute. The budget comes from the Consumer Expenditure Survey tables that Report 1's financing model reads. The exhibits below are where quantities of that kind are stated once, so that a report can cite rather than re-derive, and so that no two reports can state the same figure on two different bases without saying so.

Reports 7 and 8 are both part of the September 29, 2026, release.

Research questions and hypotheses. As the introduction to the series, this report asks no research question of its own and tests no hypothesis. It sets out the questions the other reports answer and places their findings side by side, without claiming that one caused another.

How to read a number in this series

Three things travel with every figure in these reports. A figure missing any of the three cannot be checked afterwards, by a reader or by the author.

Its vintage. The year, the survey reference date, or the date the page was read: "Occupational Employment and Wage Statistics, May 2025"; "calendar year 2026 Medicare rates"; "read September 15, 2026". A figure printed without its vintage looks the same in five years as it does today, and nothing in it tells the reader it has gone stale. The failure mode is concrete, and the author has been caught by it. A per-service Medicare amount of $14.15 appeared in two pieces published under the author's name: "The Third Front" (July 30, 2026), in its text and charts, and "The Middleman Will See You Now" (July 22, 2026), in a chart. A physician checked the first against his own locality in public and was right. It was corrected on August 2, 2026, and its charts, which that correction said had been rebuilt, were replaced on September 23, 2026. The second was corrected on the website in August 2026 and on Substack on September 24, 2026. The amount reproduces exactly on the calendar year 2002 conversion factor, 0.46 relative value units multiplied by $36.1992 multiplied by 85 percent, and on no later one: it had been carried forward without being re-derived. Exhibit B7 shows that arithmetic and gives the calendar year 2026 amounts, which for a fifteen-minute unit of individual therapy run from $18.74 (97803 or G0270, facility) to $31.23 (97802, non-facility), at 85 percent of the national schedule amount and the $33.4009 conversion factor, before geographic adjustment and sequestration.

Its basis. Most of these quantities have a second number standing behind them that is not the same thing. Total relative value units are not work relative value units, and Medicare pays on the total. A facility rate is not a non-facility rate. The fee schedule amount is not the 85 percent a dietitian is paid under the statute, and neither figure is what the dietitian personally receives, because the amount is paid to whoever bills it. A count of jobs

is not a count of people, and neither is a count of credentials held. An unweighted mean across counties is not a national rate. A mean is not a median, and against one comparator in Exhibit B1 the choice between them moves the answer by 11.3 points and reorders the comparison set. Each exhibit below states its basis in its own units line, and each report states the basis at the point of use rather than only in its limitations section.

Which report owns it. Every figure in this series is derived in one place. That report holds the data, the code and the checks that its own Data availability section lists, and every other report cites it rather than re-deriving it. Exhibit B10 says which report owns what. This report owns nothing of its own except the Exhibit B7 re-derivation, which is re-run from the primary file at build time rather than carried forward, because a Medicare rate is the figure in this series most likely to go stale without looking any different.

Two further conventions run through the series. Where a report says something was not found, it names what was searched, on what date, and where, rather than asserting that the thing does not exist. And where two sources give different values for the same quantity and neither can be shown wrong, both are printed with their bases and the disagreement is stated rather than reconciled. The Dietitian Licensure Compact count is the standing example: a national tracking source and the compact's own site gave different counts of participating states when both were read on September 15, 2026, so Report 6 prints one source with its as-of date and says plainly that the sources disagree, and this report prints no count at all.

Reference exhibits

Ten exhibits follow. Each one exists because the same quantity was being stated in more than one report, or because a single figure was standing in for two quantities that are not the same. Exhibit B1 holds the wage benchmark that four reports use. B2 sets the four counts of the dietetics workforce beside each other, because they count credentials, jobs, provider records and persons, and no two of them are substitutes. B3 gives sex composition on one basis and says that the credentialed figure was searched for and not located. B4 holds the accreditor's enrollment and graduate series with the two measures labelled separately, because enrollment is a stock and graduates are an annual flow. B5 gathers the borrowing limits, the illustrative principal and the living-cost budgets on one sequence length. B6 holds the consumer price series and says why the 2025 annual average is an average of eleven months. B7 prices Medicare nutrition therapy for calendar year 2026 and separates the two percentages that are routinely collapsed into one. B8 gives each chronic-disease prevalence basis once. B9 dates four entry-credential rules at the document the issuing body wrote. B10 maps the companion reports.

Each exhibit states its own vintage, basis and source at the point it is used. This report summarizes; it does not re-derive. Exhibit B7 is the sole exception: it is re-derived at build time from the calendar year 2026 Medicare physician fee schedule conversion factor and relative value file, not inherited from any prior report or draft.

Where a value in an exhibit will move between the date this text was assembled and the date of release, the exhibit carries a marked placeholder rather than a printed value, and `build/UNFILLED.md` names the owner and the reason for each one. A placeholder that survives into a released copy is a defect. A stale date printed as though it were current is a worse one, because nothing on the page shows it.

B1. The wage benchmark

In the federal wage survey for May 2025, dietitians and nutritionists earned a national mean of $77,130 a year against $105,280 for physical therapists. The dietitian wage is 73.3 percent of the physical therapist wage at the mean and 74.3 percent at the median.

The Dietetics Workforce Reports, Introduction, shared exhibit B1. Feeds Reports 1, 4, 5 and 6. Assembled September 22, 2026.

Table B1. Dietitian and comparator wages, Occupational Employment and Wage Statistics, May 2025 national estimates

SOC code	Occupation	Entry credential tier	Mean annual wage	Median annual wage	Dietitian wage as % of this occupation, at the mean	at the median
29-1031	Dietitians and nutritionists	Master's (requirement effective January 1, 2024)	$77,130	$76,400	not applicable	not applicable
29-1123	Physical therapists	Doctoral (DPT)	$105,280	$102,760	73.3	74.3
29-1141	Registered nurses	Associate's or bachelor's	$101,420	$97,550	76.1	78.3
29-1122	Occupational therapists	Master's or doctoral	$101,280	$100,330	76.2	76.1
29-1127	Speech-language pathologists	Master's	$98,170	$97,870	78.6	78.1
29-1011	Chiropractors	Doctoral (DC)	$90,520	$79,200	85.2	96.5
29-1126	Respiratory therapists	Associate's	$87,300	$82,280	88.4	92.9

Units. Annual wages in United States dollars, as the survey publishes them. Ratios in percent of the comparator occupation's wage at the same statistic.

Vintage. Occupational Employment and Wage Statistics, May 2025 national estimates, released May 15, 2026 (bulletin USDL-26-0725). The seven wage levels are as Report 4 prints them in Table S1, Panel B; they were reproduced for this exhibit against the May 2025 national estimates file (`national_M2025_dl.xlsx`, captured from the Bureau of Labor Statistics on September 14, 2026) on September 22, 2026, and all fourteen agree to the

dollar.

Source. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2025 national estimates. Levels from Fee, *Coverage and comparability of federal wage estimates for the health workforce*, The Dietetics Workforce Reports, Report 4, Table S1, Panel B. The dietitian and physical therapist ratios at the mean and the median are Report 4's own, in its Table 3. The remaining ten ratios are computed in this exhibit from the levels in the same table.

Note. The entry credential tier is the current entry requirement for the occupation, not the credential held by the workforce the survey measured; the tiers are as Report 6 states them in its Table 1. Differences between the two ratio columns are computed from unrounded values: the occupational therapy difference is 0.01 points and prints as zero. The survey publishes a percent relative standard error for employment and for the mean wage, and none for the median; on the mean wage it is 0.2 percent for registered nurses and respiratory therapists, 0.3 percent for physical therapists, 0.4 percent for dietitians, occupational therapists and speech-language pathologists, and 1.5 percent for chiropractors. Dietitian employment is 77,570 jobs with a relative standard error of 2.1 percent; physical therapist employment is 267,330 jobs. The dietitian hourly mean is $37.08 and the hourly median $36.73, because the survey converts between hourly and annual wages at a standard work year of 2,080 hours.

What the survey covers, and what it does not

The Occupational Employment and Wage Statistics survey collects wages from employers, so its universe is wage and salary jobs in nonfarm establishments. Its Handbook of Methods states that "self-employed workers, owners and partners in unincorporated firms, employees of private households, and unpaid family workers are not covered by the OEWS survey", and the same paragraph covers "salaried officers, executives, and staff members of incorporated firms". Owners and partners in unincorporated practices are outside the survey. Whether the incorporated self-employed are inside it is a reading: Report 4 takes the Handbook's salaried officers of incorporated firms to include them, and its null result depends on that reading (Report 4). The Bureau's other statements of the survey's scope, read for Report 4, pair the same two things. The technical note for the May 2025 estimates says the survey "does not include the self-employed, owners and partners in unincorporated firms, household workers, or unpaid family workers" and counts "salaried officers, executives, and staff members of incorporated firms" in its employment, and the survey's frequently asked questions answer whether it has estimates that include the self-employed with a flat no while defining its employees as workers "paid a wage or salary". The Employment Projections program, to which those questions send readers for estimates that include the self-employed, counts only the unincorporated self-employed in its self-employment measure. Report 4 tests what its reading moves.

Further limits travel with every number above. The survey counts jobs, not people and not credential holders, so the 77,570 figure is jobs in the occupation rather than a count of registered dietitians. Exhibit B2 sets the four universes side by side. The unit of classification is the Standard Occupational Classification code 29-1031, which the employer assigns, and that code is not the credentialed profession.

Every figure here is also a survey average rather than a scheduled rate. The $77,130 is an estimated average across employers, not a rate any employer's pay instrument prints, and nothing in this exhibit describes what any instrument schedules. Report 5 reads scheduled rates from the instruments themselves and is where those belong.

Why both the mean and the median are printed

Report 4's headline ratio, 73.3 percent, is a ratio of means. Against physical therapists the median ratio is 74.3 percent, 1.1 points higher on unrounded values. For that pair the choice of statistic moves the answer very little, and a reader who meets only one of the two is not misled.

Across the six comparators the choice does move the answer. Against chiropractors the dietitian wage is 85.2 percent of the comparator at the mean and 96.5 percent at the median. That is a gap of 11.3 points between the two readings, and it opens because the chiropractor mean sits well above the chiropractor median. The difference reorders the set. At the mean the smallest gap in the table is against respiratory therapists, whose entry credential is an associate's degree. At the median the smallest gap is against chiropractors, and respiratory therapists fall to second. Registered nurses move from second-widest gap at the mean to fourth at the median.

The ordering of the comparators is therefore a property of the statistic as much as of the professions. Any sentence in the series that ranks dietitian pay against a set of comparators has to say which statistic it ranks on. The ordering in Report 6's Table 1 is a mean ordering and is labelled as one.

What this exhibit settles

The portfolio consistency review of September 15, 2026, found this same benchmark stated separately in four of the series manuscripts, each one deriving or restating it on its own. The repeated figures were the $77,130 and $105,280 pair and the 73.3 percent ratio (`PORTFOLIO_CONSISTENCY.md`, section 3.1). B1 is where the series states it once. Report 4 already cites the Introduction for it at the point of use.

Report 6 prints the same seven occupations as a pay ladder at the mean, with a hospital-industry column alongside the national one, and B1 does not restate that. B1 carries the national basis only. The two agree on every national mean.

Exhibit B6 carries the consumer price series that any real-wage sentence in this series rests on. Nothing in B1 is inflation-adjusted.

Checked at release

Reconfirmed on September 29, 2026: the Bureau of Labor Statistics data tables page lists May 2025 as the latest release, with no May 2026 tables.

Report 4 carries the same check at the same sentence, under its acceptance check A16. The two are filled from one run and must agree.

B2. Who counts as a dietitian

Exhibit B2. Who counts as a dietitian: four counts of the workforce, four universes, four dates. United States, counts as published by each source. Each row counts a different thing, and no two are interchangeable.

Universe	Count	As of	What the count counts	Report that owns the figure
Credential registry, Commission on Dietetic Registration	114,391 [a]	September 28, 2026, read September 29, 2026 [a]	Registered dietitian credentials held on the registry	Report 1; the same figure appears in Report 2
Occupational employment, SOC 29-1031, Occupational Employment and Wage Statistics	77,570 [b]	May 2025 national estimates	Full-time and part-time jobs in the occupation, at surveyed establishments	Report 4; the same figure appears in Report 1
Federal provider file, National Plan and Provider Enumeration System	72,465	File released August 10, 2026	Active records carrying a Registered Dietitian taxonomy code with a practice location in the fifty states or the District of Columbia	Report 2
Household survey persons, American Community Survey one-year public use microdata	104,946 (SE 4,404) [c]	2024 one-year file, 2024 income year	Persons employed in the occupation, in the universe built to match what the establishment survey covers	Report 4

[a] The registry count and its as-of date are those of one read of the Commission on Dietetic Registration registry statistics page, made on September 29, 2026, which Reports 1, 2 and 6 also print.

[b] May 2025 was the current release when Report 4 checked it on September 15, 2026, and it was still the current release when checked again on September 29, 2026.

[c] The 2024 one-year file was the most recent when Report 4 checked on September 15, 2026, and the 2025 one-year file had still not been published when checked on September 29, 2026.

What each universe is, and is not.

The **registry count** is a count of Registered Dietitian and Registered Dietitian Nutritionist credentials held. It takes in registrants who do not practice and registrants who live abroad, and it records them by registrant address rather than by place of work. It is not a count of people working as dietitians (Report 2).

The **occupational employment estimate** counts jobs, not people, because one person can hold more than one. It is built from what employers report about their establishments, so it leaves out the unincorporated self-employed (Report 4 reads it to include the incorporated self-employed), and the occupation it names takes in nutritionists who hold no dietitian credential (Reports 1 and 4).

The **provider-file count** counts records. Taxonomy codes are chosen by the provider and are not checked against the registry, identifiers are not routinely retired when someone stops practicing, and some employers register employed dietitians at a single organizational address. A record marks a listed practice location, not a person at work there (Report 2).

The **household survey count** counts persons, with occupation assigned by the respondent rather than by an employer. Its universe is the one Report 4 built to match what the establishment survey covers: civilian employed respondents in classes of worker one to five and seven with positive wage and salary income, which leaves out the unincorporated self-employed. It is not a count of credential holders (Report 4).

Two comparisons the table invites. Report 4 reports the household count at 1.35 times (SE 0.06) the establishment count, against 1.14 for physical therapists, and finds that the difference in unit cannot explain the excess, because a person holds at least one job. Report 2 reports the provider file at 0.63 records per registrant, the file of August 10, 2026, against the registry as of September 28, 2026. That is a ratio of two differently defined counts. It is not a coverage rate.

The registry count is also the base of the profession's national projections, and one of their inputs is an assumption. The projections commissioned by the Commission on Dietetic Registration (Gellar, O'Brien, Prenovitz and Boi, Mathematica, August 12, 2026) start from the credentialed registry, carry it forward at the registry's own 2020 to 2025 compound annual growth rate, and set baseline demand ten percent above supply. The ten percent is an assumption, not a measurement. The projections describe it as informed primarily by a 2025 employer survey, which does not itself estimate the size of a national shortage, and by consultation with the Commission (Report 2). Report 2 also records that a full-text search of that document on September 15, 2026, found no sub-national breakdown. Reports 1 and 4 each say in terms that they make no projection of their own.

One further number a reader will meet. The Bureau of Labor Statistics Occupational Outlook Handbook gives a 2025 base of 86,300 for this occupation. It is higher than the establishment survey estimate partly because it counts self-employed workers, nine percent of those jobs, whom the wage survey excludes (Report 1). That is a fifth basis, and it is not in this table.

Source. Report 1 (registry count, from Commission on Dietetic Registration registry statistics, read September 29, 2026); Report 2 (provider-file count, from the Centers for Medicare and Medicaid Services National Plan and Provider Enumeration System file released August 10, 2026; the registry ratio); Report 4 (occupational employment, from Bureau of Labor Statistics Occupational Employment and Wage Statistics May 2025 national estimates; household survey persons, from US Census Bureau American Community Survey 2024 one-year public use microdata sample).

Projections: Gellar, O'Brien, Prenovitz and Boi, *Dietetics workforce capacity and demand: 2025 to 2035 projections*, Mathematica for the Commission on Dietetic Registration, August 12, 2026. *Units.* Credentials; jobs; provider records; persons. *Basis.* Each row is stated on its own basis and the four are not additive, not nested, and not substitutes for one another.

B3. Sex composition

Exhibit B3. Sex composition of dietetics and five comparator health occupations, on one basis: people employed in the occupation, Current Population Survey annual averages, 2025. Speech-language pathology and occupational therapy are carried for scale. The credentialed workforce is a second universe of the same-looking statistic and no figure is printed for it, because none was located at a primary source.

Occupation, as the survey names it	Women, percent of employed in the occupation	Employed in the occupation, thousands
Speech-language pathologists	97.3	203
Occupational therapists	92.4	138
Dietitians and nutritionists	91.7	136
Registered nurses	87.3	3,528
Physical therapists	66.9	338
Respiratory therapists	65.2	89

What this counts. People employed in the occupation, civilian noninstitutional population aged sixteen and over, occupation self-reported to a monthly household survey and averaged over 2025. The survey does not verify credentials. The dietitians and nutritionists category is therefore wider than the registered dietitian nutritionist workforce, and these shares do not describe credential holders (Report 6).

What it does not carry. Table 11 publishes no standard errors. No interval accompanies any share here, and no difference between occupations is tested. The three highest shares are close, and their order is not a tested ranking. Report 6 places dietetics among the most feminized occupations in this set rather than ranking it against its neighbors, and this exhibit does the same.

The credentialed universe: searched, not located. On September 15, 2026, Report 6 searched the Commission on Dietetic Registration's registry statistics page and its demographics page, the 2023 Needs Satisfaction Survey executive summary that the demographics page points to (*Journal of the Academy of Nutrition and Dietetics*, 2025), the 2020 Needs Satisfaction Survey record, and the work that resolves from the name "Academy Workforce Demand Study". No primary source stating the sex composition of the credentialed workforce was located. The demographics page presents its charts as images carrying no figures in the page text, and the survey full texts were paywalled or returned an access error. An earlier figure of about 91 percent women on the credentialed basis, which appeared in the July 2026 documents described in the reconciliation note below, was withdrawn for that reason, and a sweep of the eight report manuscripts on September 22, 2026, found it in none of them. The 2023 survey's full text is the source the Commission itself points to and would settle the question. It was not read for this release.

No racial or ethnic composition figure is printed, and the survey's race columns cannot stand in for one. An earlier figure of 74.8 percent non-Hispanic White credential holders, which appeared rounded in the same July 2026 documents, was withdrawn on the same search, and the same September 22, 2026, sweep found it in none of the eight manuscripts. The household survey's race columns are not a substitute: they are race alone, the Hispanic or Latino column is separate and its members may be of any race, and the Bureau notes that the race groups shown do not sum to the total (Report 6).

The third column is a fifth count, and it is not one of B2's four. The employed totals there are a household-survey count of the occupation, on a basis different again from the four counts in Exhibit B2, which are the credential registry, the establishment employment survey, the federal provider file and the household survey's public use microdata. B2 is where those four are set against each other. Here the totals are printed only as the denominators of the percentages beside them.

Source. Report 6, from US Bureau of Labor Statistics, "Household data annual averages, Table 11: Employed people by detailed occupation, sex, race, and Hispanic or Latino ethnicity," Current Population Survey, 2025 annual averages, retrieved September 15, 2026 (cached file SHA-256 41a9aa2c8d0df320c7411b7e121740131557e1b8c1db50ad41465059b766d51b). *Units.* Percent of employed in the occupation; thousands of people, annual average. *Basis.* Employment in the occupation as reported by households, not holders of any credential; no standard errors published, so no interval and no test.

B4. The pipeline series

Exhibit B4. The pipeline series: students enrolled in, and graduating from, programs accredited by the Accreditation Council for Education in Nutrition and Dietetics, 2014 to 2025. Enrollment and graduates are separate measures and every column says which one it carries. Enrollment is a stock, a headcount of students enrolled; graduates are an annual flow. The two are not comparable to each other and a change in one does not imply a change in the other.

Year	Enrolled: didactic programs	Enrolled: supervised practice [a]	of which Future Education Model graduate programs	Enrolled: all program types (accreditor's Total row) [b]	Graduates: didactic programs	Graduates: supervised practice [a]	Graduates: all program types (accreditor's Total row) [b, c]
2014	17,719	5,216	NR	24,423	6,578	3,988	10,903
2015	16,878	5,419	NR	23,594	6,889	4,126	11,433

Year	Enrolled: didactic programs	Enrolled: supervised practice [a]	of which Future Education Model graduate programs	Enrolled: all program types (accreditor's Total row) [b]	Graduates: didactic programs	Graduates: supervised practice [a]	Graduates: all program types (accreditor's Total row) [b, c]
2016	14,758	5,579	NR	21,613	6,887	4,157	11,436
2017	14,225	5,961	NR	21,109	6,862	4,395	11,549
2018	12,972	6,083	NR	19,975	6,281	4,897	11,440
2019	11,924	6,354	NR	18,925	5,574	4,870	10,655
2020	11,422	6,624	521	18,564	5,112	4,700	9,971
2021	10,381	6,701	892	17,589	4,988	4,565	9,728
2022	8,976	6,777	1,235	16,128	4,703	4,633	9,444
2023	8,297	6,120	1,666	14,754	4,248	4,498	8,841
2024	7,732	6,166	2,005	14,170	3,638	3,419	7,119
2025	7,748	6,359	2,251	14,336	3,480	3,533	7,078

[a] Supervised practice is the author's sum of the accreditor's dietetic internship, coordinated program and Future Education Model graduate program rows, not a row the accreditor prints. NR, not reported: Future Education Model graduate programs first appear in the tables in 2020.

[b] The accreditor's Total row also covers dietetic technician programs, which neither the didactic column nor the supervised-practice column includes, so the columns shown do not sum to the Total. In every year from 2000 to 2025, and for both measures, the Total row equals the sum of the five program types.

[c] Graduates across all program types counts completions, not people: a student on the two-step route completes a didactic program in one year and a supervised-practice program in a later one, and is counted in each.

One series that is deliberately absent. Report 1 also reports didactic-stage output, the sum of didactic, coordinated and Future Education Model graduates, which was 7,491 in 2014 and 5,068 in 2025. In that series the coordinated and Future Education Model graduates are counted a second time inside the supervised-practice series, 1,588 of them in 2025. It is not printed here. The didactic column above is didactic programs only, and it is not the same series.

Changes, as Report 1 reports them. Enrollment across all program types fell from 24,423 in 2014 to 14,170 in 2024, down 42.0 percent, and to 14,336 in 2025, down 41.3 percent; the 2025 figure is 1.2 percent above 2024. Didactic-program enrollment alone fell from 17,719 in 2014 to 7,732 in 2024, down 56.4 percent, and to 7,748 in 2025, down 56.3 percent. Supervised-practice enrollment rose from 5,216 in 2014 to 6,359 in 2025, up 21.9 percent. Didactic-program graduates fell from 6,578 in 2014 to 3,480 in 2025, down 47.1 percent. Supervised-practice graduates fell from 3,988 in 2014 to 3,533 in 2025, down 11.4 percent, and from 4,870 in 2019 to 3,533 in 2025, down 27.5 percent. Graduates across all program types fell from 10,903 in 2014 to 7,119 in 2024, down 34.7 percent. Both endpoints are given for the enrollment series, because the accreditor's tables now run to 2025 while earlier material in circulation stated the fall to 2024.

Consolidation footnote. Enrollment is a headcount, not a count of entrants. The total includes the Future Education Model graduate programs reported from 2020, which deliver didactic coursework and supervised practice in one program. A student who takes that route in place of the two-step route is counted once among graduates rather than twice (note c), so movement into these programs lowers graduates across all program types even when the number of people finishing training is unchanged. The tables do not show how much of the decline this accounts for.

What the record does and does not establish about that model. The accreditor approved accreditation standards for the Future Education Model in August 2017, initially for demonstration programs, and the model's graduate programs deliver coursework and supervised practice in one program, the design recommended in the 2013 report that preceded the graduate-degree rule (Report 1, Appendix L). The tables report these programs from 2020 and carry them inside every Total, so movement into them cannot by itself lower the total. What it does move is students between program-type series. No share of the decline is attributed to it, here or in Report 1, because the tables do not measure that share.

Source. Report 1, from Accreditation Council for Education in Nutrition and Dietetics, *Dietetics education program statistics 2000 to 2025* (a one-page document of three tables, programs, enrolled students and interns, and graduates, each by program type; file created March 27, 2026), retrieved August 3, 2026; SHA-256 of the archived file 51e6406be5a092ced15578ac5adb917d9925430 5a0bc53d9e0a33293ec49b496. *Units.* Enrolled students, a headcount; graduates, an annual count of completions. *Basis.* Complete counts reported by accredited programs, not a sample, so no sampling interval applies. Every cell was extracted twice, with two independent text extractors that agreed on all 468 cells, and checked against each table's Total row and its printed percent-change columns (Report 1, analysis step T07).

B5. Credential cost and financing constants

The Dietetics Workforce Reports, Introduction. Reference exhibit. Basis: Report 1's stylized two-year graduate sequence. Feeds Reports 1 and 6. **Built September 22, 2026.** Statutory limits are those in force for periods of instruction beginning on or after July 1, 2026; the loan rate and fee are those for award year 2026 to 2027.

This exhibit gathers the constants the series uses when it prices entry to the profession, so that no report states one of them on a basis another report does not share. It summarizes; the derivations live in Report 1 (the statutory limits and the two-year split) and Report 6 (the financing model, the living budgets and the loan fee). It is not a measurement of what any student borrows, pays or owes.

B5.1 Federal Direct Unsubsidized borrowing limits, periods beginning on or after July 1, 2026

Units: US dollars.

Limit	Graduate study outside the professional degree category	Professional degree study
Annual, in any academic year or its equivalent	$20,500	$50,000
Aggregate, in addition to undergraduate borrowing	$100,000	$200,000
Lifetime ceiling across loans under the title, parent PLUS excluded	$257,500	$257,500

Graduate PLUS borrowing ends for any period of instruction beginning on or after July 1, 2026. A student who was enrolled in a program on June 30, 2026 and had already received a Direct Loan for it keeps the earlier rules. The interim period is an expected time to credential. That is the lesser of three academic years or the time remaining in the program.

Source Public Law 119-21, section 81001 (20 U.S.C. 1087e(a)(4)), enacted July 4, 2025; read at the enacted text on GovInfo, September 15, 2026, and reproduced in Report 1.

B5.2 Federal borrowing capacity and the federal-access gap, by sequence length

Units: US dollars. The private residual assumes the illustrative principal in B5.3.

Sequence length	Federal credit outside the category	Federal credit inside the category	Federal-access gap	Private residual, outside the category
2 years (the series basis)	**$41,000**	**$100,000**	**$59,000**	**$120,000 (74.5 percent)**
3 years	$61,500	$150,000	$88,500	$99,500
4 years	$82,000	$200,000	$118,000	$79,000
5 years	$100,000	$200,000	$100,000	$61,000

Federal capacity is the lesser of the annual limit multiplied by the number of academic years and the aggregate limit. These are statutory borrowing capacities before any loan fee is deducted. Over two, three and four years the annual limits bind outside the category. At four years the aggregate limit begins to bind inside it, which is where the gap is widest; at five years both aggregate limits bind and the gap falls back to $100,000. These rows depend on the statutory limits alone. They do not depend on any wage, principal, interest rate, tax treatment or living-cost budget.

The rows assume full-time study over whole academic years by a student with no prior graduate borrowing, no eligibility for the interim exception above, and no lower program-level limit set by the institution.

Source Report 1, Table M1 and Appendix M, from Public Law 119-21, section 81001; reproduced from the statute by Report 1's cross-report consistency task on September 15, 2026.

B5.3 The illustrative principal and its components

Units: US dollars.

Component	Amount
Graduate tuition	$90,000
Supervised practice	$35,000
Living-cost loan	$36,000
Total	**$161,000**

The $161,000 principal and each of its three components are the author's illustrative assumption, not an estimate. They were constructed from published program cost ranges, are not drawn from a single source, and are not measured dietetics program costs. They are used to show how a given principal divides between federal and private credit, and for nothing else.

The components describe a master's degree followed by a separate supervised-practice program, which is a longer sequence than the two-year comparison in B5.2. They are therefore not paired with the two-year split: the $120,000 private residual in B5.2 is what the same principal leaves when federal capacity is the two-year figure, and it is not a statement about how long the sequence is.

Source Report 6, Methods (credential cost), which prints the components and labels them as the author's assumptions; Report 1, Appendix M, which prints the principal for scale only.

B5.4 Cost-of-living basis

Units: US dollars a year. Series decision D5, settled September 16, 2026.

Budget	Amount	Universe	Consumer Expenditure Survey table
National	$37,400	one-person consumer unit	Table 1400 (size of consumer unit)
Areas of 2.5 million people and more	$43,200	the national one-person base, scaled by the expenditure ratio of large metropolitan areas	Table 2400 (population size of area of residence)

Both figures are the sum of six spending categories: housing, food, transportation, healthcare, apparel and services, and personal care products and services. The national figure is the one-person consumer unit total, $37,407 before rounding. The metropolitan figure applies to that base the ratio of spending in areas of 2.5 million people and more to spending in all areas, about 1.156, giving $43,241 before rounding.

The metropolitan scaling factor partly reflects income rather than prices, because expenditure in larger areas is higher for both reasons and the survey does not separate them. The $43,200 figure is reported as a sensitivity, not as a cost-of-living index.

These are a basic needs budget, not a poverty line and not a living wage. The six categories omit taxes, education, entertainment, insurance, pensions and cash contributions.

Source US Bureau of Labor Statistics, Consumer Expenditure Survey 2024, Tables 1400 and 2400, derived in the financing model deposited with Report 1 (`base/financing_model.py` in the Report 1 data record) and printed in Report 6. The two copies of that model were confirmed byte-identical on September 16 2026. Report 1 derives the budgets but does not itself print one; Report 6 prints them.

Retired. The round $35,000 and $42,000 budgets that an earlier version of Report 6 carried are retired across the series. Neither had a traceable source. Correcting them moves Report 6's central conservative-budget cell from a surplus of $688 a year to a shortfall of $1,712, so the correction makes the case worse rather than smaller, and Report 6 states that plainly.

B5.5 Rate, fee, tax and term constants

Units as shown.

Constant	Value	Vintage and basis
Graduate Direct Unsubsidized fixed interest rate	8.07 percent	Award year 2026 to 2027, being the high yield of the ten-year Treasury note auctioned May 12, 2026 (4.468 percent) plus the statutory 3.6 points, under a 9.5 percent ceiling (20 U.S.C. 1087e(b)(8)(B))
Loan fee deducted from each disbursement	1.057 percent	The fee in force for the disbursement window modelled (Federal Student Aid, Electronic Announcement GENERAL-26-28, May 13, 2026)
Blended modelling rate, Report 1	9.0 percent	The federal rate above blended with a higher private rate on the balance
Private tier annual percentage rate, Report 6	9 to 11 percent	Tier rates in the financing model
Tax proxy	22 percent of gross, flat	Applied identically across professions; a proxy, not a computed liability. At 2026 federal parameters an unmarried filer taking the standard deduction owes 18.2 percent of gross at the dietitian mean wage in federal income tax plus payroll tax, so the proxy sits 3.8 points above that liability
Amortization term	10 years	Monthly compounding

Source Report 6, Methods and Table 4 notes; Report 1, Methods. The interest rate and the loan fee were read at the statute and at Federal Student Aid on September 15, 2026.

The reconciliation of the two federal tranche figures that appear in the series is in Appendix A.

What this exhibit does not show

- **It is not a measurement of student debt.** The $161,000 principal is stipulated. For a measured figure, go to Report 1. It gives College Scorecard median federal debt for dietetics programs (CIP 51.31, June 2026 release): $36,854 across the twenty master's programs reporting debt disbursed at the reporting institution only, and $24,497 across the sixty bachelor's programs reporting debt disbursed at all institutions. Those medians were measured before the limits that apply from July 1, 2026. They also include Grad PLUS borrowing, which no longer exists for new graduate borrowers.
- **A borrowing limit is capacity, not borrowing.** The federal-access gap is the difference in what a student may borrow from the federal government, not what any student does borrow or owe.
- **The category placement is a federal designation, not a judgement about the work.** Membership in the professional degree borrowing category is read from Federal Student Aid's interim list. That list is an interim designation, in force for the duration of a preliminary stay. Federal Student Aid states it may change as the litigation proceeds.
- **Federal protections do not reach private credit.** Borrowing above the federal maximum carries no income-based payment, no Public Service Loan Forgiveness and no statutory relief. The reason is narrow. The Repayment Assistance Plan, income-driven repayment and forgiveness all apply only to loans made under the federal Direct Loan program.

- **The living budgets are a basic needs sum, not a standard.** See B5.4.

Checked at release

Re-read on September 29, 2026. Federal Student Aid Electronic Announcement GENERAL-26-42 was last modified on July 10, 2026, and neither of its two lists carries a code in 51.31, 19.05 or 30.19. The dockets of consolidated cases Nos. 26-1780 and 26-1941 (D.D.C.), in a copy of the court record that printed its own last update as September 4, 2026, record no order after the stay of June 24, 2026, which remains in effect until further order of the court. Report 1 states the same status on the same date.

As last read at the primary document, no dietetics or nutrition CIP code appears on the interim list. The strings “Dietetic” and “Nutrition” do not appear in the announcement at all. The document read was Federal Student Aid Electronic Announcement GENERAL-26-42, posted June 29, 2026 and updated July 10, 2026, in a capture taken September 15, 2026.

Exhibit basis in one line: statutory borrowing limits in force from July 1, 2026, read over Report 1’s stylized two-year graduate sequence, against an illustrative principal of $161,000 that is the author’s assumption and not an estimate, with living costs from the Consumer Expenditure Survey 2024.

B6. CPI-U, 2015 to 2025

Consumer prices rose 35.8 percent between the 2015 and the 2025 annual averages of the Consumer Price Index for All Urban Consumers. The 2025 annual average is an average of eleven months, because no October 2025 index was published.

The Dietetics Workforce Reports, Introduction, shared exhibit B6. Feeds any real-wage or constant-dollar sentence anywhere in the series. Assembled September 22, 2026.

Table B6. Consumer Price Index for All Urban Consumers, series CUURoooSA0, annual averages

Year	Annual average index	Index, 2015 = 100	Change on the year
2015	237.017	100.0	not applicable
2016	240.007	101.3	+1.3%
2017	245.120	103.4	+2.1%
2018	251.107	105.9	+2.4%
2019	255.657	107.9	+1.8%
2020	258.811	109.2	+1.2%
2021	270.970	114.3	+4.7%
2022	292.655	123.5	+8.0%
2023	304.702	128.6	+4.1%
2024	313.689	132.3	+2.9%
2025	321.943 (eleven months)	135.8	+2.6%

Units. Index points as the Bureau of Labor Statistics publishes them, to three decimal places. The second column is the same series divided by its 2015 value.

Basis. Series CUUR0000SA0: Consumer Price Index for All Urban Consumers, all items, United States city average, not seasonally adjusted, annual averages. The index reference period is not stated here because every use of this series in the series of reports is a ratio of two index values, which does not depend on it.

Vintage. Pulled from the Bureau of Labor Statistics public API on September 15, 2026 (response timestamp 2026-09-16T01:27:02Z), read again for this exhibit on September 22, 2026. Report 3 cites the same series from the Bureau’s flat file, last visited September 11, 2026; Report 6 cites it from bls.gov/cpi, retrieved September 15, 2026. All three readings agree on every value above.

Source. US Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers, series CUUR0000SA0, annual averages. The same values are printed for 2010 to 2025 in Report 3, Table A.

Why the 2025 average is eleven months

The Bureau’s series carries no value for October 2025. The API returns that month with the footnote “Data unavailable due to the 2025 lapse in appropriations”, as the September 15, 2026, pull records it. Every other month of 2025 is published, so eleven of twelve monthly indexes exist.

The Bureau nonetheless publishes an annual average for 2025, 321.943, and that figure is the mean of the eleven published months. Recomputing the mean of January through September, November and December gives 321.943 to three decimal places. The published annual average is not a twelve-month average with a gap filled in. It is an eleven-month average. A comparison that sets 2025 against 2015 as though both were full calendar years is comparing eleven months of price collection with twelve.

What that costs has been measured once, in the longest deflation the series runs. Report 3 deflates sixteen years of Medicare allowed charges on this series and reports that imputing the missing month moves the fall in constant-dollar allowed charges since 2019 by about a tenth of a percentage point and changes no conclusion. All nine manuscripts were searched on September 22, 2026, for the strings CPI, Consumer Price, constant 20, real terms and inflation-adjust. Only Report 3 and Report 6 returned hits. No deflation longer than Report 3's was found. The eleven-month basis is stated wherever the index is used and is not carried further.

How the 35.8 percent figure replaced an earlier one is recorded in Appendix A.

What rests on this exhibit

Report 6 states that dietitian nominal mean wages rose 32.0 percent between the May 2015 and the May 2025 wage surveys, from a national mean of $58,410 to $77,130. Consumer prices rose 35.8 percent over the same span. On that basis $58,410 in May 2015 is $79,339 in 2025 annual-average dollars, against the $77,130 the survey reports for May 2025, a real change of -2.8 percent. Both figures reproduce from this exhibit. Report 6 also states the limit on the comparison, and it stands. The wage endpoints are two May survey reference dates and the price endpoints are two calendar-year averages. The Bureau of Labor Statistics does not encourage the use of Occupational Employment and Wage Statistics data for time-series analysis.

Report 3 deflates allowed charges and schedule amounts to constant 2025 dollars on this series, base 2025, for calendar years 2010 to 2025. Its Table A prints the annual average and the conversion factor for every one of those years.

Exhibit B1 carries the wage levels those real-wage sentences start from. Nothing in B1 is inflation-adjusted.

Checked at release

Re-read on September 29, 2026, in the Bureau of Labor Statistics data viewer, the public API having reached its daily request limit: October 2025 is still carried as unavailable, and the 2025 annual average is still 321.943.

B7. Medicare nutrition therapy: the two percentages and the price, calendar year 2026

Re-derived at build time, September 22, 2026, from the CMS conversion factor and relative value file. Not inherited from any report, chart or internal document.

Two percentages govern what Medicare pays for nutrition therapy. They are not the same rule and they apply to different quantities. Collapsed into one, they produce a figure that is wrong in a way a reader cannot see from the figure itself.

The first percentage is 85, and it is statutory. Under 42 U.S.C. § 1395l(a)(1)(T), payment for medical nutrition therapy services is a share of the lesser of two amounts. One is the actual charge. The other is 85 percent of the physician fee schedule amount for the same service if a physician had furnished it. The reduction attaches to the practitioner, not to the service. CMS said so when it set the first rates: the Medicare allowed charge "would equal 100 percent of the physician fee schedule amount if the services are performed by a physician and 85 percent of the physician fee schedule amount if the services are performed by a registered dietitian or nutrition professional" (66 Fed. Reg. 55,246, 55,278, November 1, 2001). So the schedule amount and the amount that governs payment are two different numbers. Both are printed below.

The second percentage was 80 and is now 100, and it is about beneficiary liability. It is Medicare's share of that 85 percent amount. The share has been 100 percent since January 1, 2011, where the service carries a grade A or B recommendation from the US Preventive Services Task Force for any indication or population and is appropriate for the individual. The deductible and coinsurance were waived for 97802, 97803, 97804, G0270 and G0271 from that date (75 Fed. Reg. 73,170, 73,417, 73,421-73,422, November 29, 2010). Before 2011 the beneficiary owed the other twenty percent. Raising this percentage did not touch the 85 percent reduction. The two are often reported as though it did.

The price, calendar year 2026

Table B7. National Medicare amounts per service for the nutrition therapy codes, calendar year 2026, in nominal US dollars. Basis: total relative value units, meaning work plus practice expense plus malpractice, never work alone; national amounts with no geographic practice cost index adjustment; facility and non-facility are separate schedules and are not compared with each other; the 85 percent amount is the statutory basis for this benefit and Medicare's payment is its share of that amount, 100 percent since 2011; amounts are before sequestration. Conversion factor: $33.4009, the CY2026 nonqualifying alternative payment model factor. Source: CMS national physician fee schedule relative value file, October 2026 release (rvu26d, released August 26, 2026, files `PPRRVU2026_Oct_nonQPP.csv` and `PPRRVU2026_Oct_QPP.csv`), downloaded from cms.gov on September 22 2026; conversion factors confirmed in text at 90 Fed. Reg. 49,266, 49,960-49,961 (November 5, 2025).

Code	Service	Setting	Work RVU	Total RVU	Schedule amount	85% of schedule	Medicare pays
97802	Individual, initial, 15 minutes	Non-facility	0.53	1.10	$36.74	$31.23	$31.23
97802	Individual, initial, 15 minutes	Facility	0.53	0.79	$26.39	$22.43	$22.43
97803	Individual, follow-up, 15 minutes	Non-facility	0.45	0.95	$31.73	$26.97	$26.97
97803	Individual, follow-up, 15 minutes	Facility	0.45	0.66	$22.04	$18.74	$18.74
97804	Group, two or more, 30 minutes	Non-facility	0.25	0.51	$17.03	$14.48	$14.48
97804	Group, two or more, 30 minutes	Facility	0.25	0.37	$12.36	$10.50	$10.50

Code	Service	Setting	Work RVU	Total RVU	Schedule amount	85% of schedule	Medicare pays
G0270	Individual, follow-up after a change in diagnosis, 15 minutes	Non-facility	0.45	0.95	$31.73	$26.97	$26.97
G0270	Individual, follow-up after a change in diagnosis, 15 minutes	Facility	0.45	0.66	$22.04	$18.74	$18.74
G0271	Group, follow-up after a change in diagnosis, 30 minutes	Non-facility	0.25	0.51	$17.03	$14.48	$14.48
G0271	Group, follow-up after a change in diagnosis, 30 minutes	Facility	0.25	0.37	$12.36	$10.50	$10.50

The arithmetic, shown

Schedule amount is total relative value units multiplied by the conversion factor. For 97802 in the non-facility setting that is 1.10 × $33.4009 = $36.74. The statutory amount is 85 percent of it, $31.23. Medicare's payment is 100 percent of that, $31.23, and the beneficiary owes nothing.

Total relative value units are the sum of the three components the file carries. The components sum to the printed totals for all five codes in both settings. For 97802 non-facility: work 0.53, practice expense 0.56, malpractice 0.01. Work relative value units alone would give 0.53 × $33.4009 = $17.70. That is less than half the schedule amount, which is why B7 prints the total and names the components.

One rounding convention changes the printed cents, so it is stated. The 85 percent figure here is 85 percent of the unrounded product of total relative value units and the conversion factor, then rounded to the cent, half up. Apply 85 percent to the already rounded schedule amount instead and four of the ten cells move by a cent, all in the facility setting. 97803 and G0270 read $18.73 rather than $18.74; 97804 and G0271 read $10.51 rather than $10.50. Report 3 uses the unrounded convention and B7 matches it.

Two bases that a single number cannot carry

Facility is not non-facility. For the same code, in the same year, the facility amount is 28.2 percent below the non-facility amount for 97802, 30.5 percent below for 97803 and G0270, and 27.4 percent below for 97804 and G0271. The gap widened for 2026. CMS halved the share of facility practice expense values allocated on work values beginning that year. The facility totals for 97802, 97803 and 97804 fell from 0.97, 0.82 and 0.46 in 2025 to 0.79, 0.66 and 0.37 in 2026. The non-facility totals were 1.10, 0.96 and 0.51 in 2025 and 1.10, 0.95 and 0.51 in 2026 (Report 3). A comparison that sets a facility rate beside a non-facility rate builds that difference, 27.4 to 30.5 percent of the non-facility amount, into whatever gap it reports.

There are two conversion factors in 2026, and this is the first year of it. Section 1848(d)(1)(A) of the Act splits the factor from CY2026. It is $33.5675 for items and services furnished by a qualifying alternative payment model participant, and $33.4009 for everything else (90 Fed. Reg. 49,266, 49,960-49,961). B7 uses the nonqualifying factor, which is the one Report 3 uses. At the qualifying factor the 85 percent amounts read $31.39, $27.11 and $14.55 non-facility, and $22.54, $18.83 and $10.56 facility. A 2026 figure quoted without naming its factor is ambiguous by about half a percent.

The schedule amount is not what anyone receives. These are national amounts before the geographic practice cost indices are applied, and before sequestration, which is applied when a claim is paid and is not built into the fee schedule. That reduction is capped at 2 percent for a fiscal year by 2 U.S.C. § 901a(6)(A), and the section as amended orders sequestration through fiscal year 2033 (United States Code, preliminary text current through Pub. L. 119-75, read September 22, 2026). A registered dietitian or nutrition professional is paid only on an assignment-related basis, so nothing may be collected above the schedule (42 U.S.C. § 1395u(b)(18)(C)(vi)). And the amount is paid to whoever bills it. Where the dietitian is an employee, the amount is the employer's revenue for the service and not the dietitian's pay. Report 3 states the same limit on its Table J: these are national scheduled amounts, not what any practitioner received.

The reverse-check for staleness is in Appendix A.

Agreement with Report 3

Report 3 owns the Medicare analysis. Its Table J gives 2026 total relative value units of 1.10, 0.95 and 0.51 non-facility, and 0.79, 0.66 and 0.37 facility, at a conversion factor of $33.4009. Its Panel B gives 97802 at $36.74, $31.23 and $31.23 non-facility, and $26.39, $22.43 and $22.43 facility, with the corresponding rows for 97803 and 97804. This re-derivation was run independently from the October 2026 file. It reproduces every one of those twelve values to the cent. There is no disagreement to report.

Which reports this exhibit feeds

Report 3, and any later report or post that states a Medicare nutrition therapy price. The components, the setting and the year travel with the number, every time.

Checked at release

Reconfirmed on September 29, 2026: the Centers for Medicare & Medicaid Services relative value files page lists RVU26D as the newest calendar year 2026 release, and a search of the Federal Register the same day found two corrections to the calendar year 2026 final rule, of November 28, 2025 and March 12, 2026, neither of which prints either conversion factor, and none later.

Nothing else in B7 is open. The relative values, the conversion factors and the ten amounts were re-derived on September 22, 2026 and are stated with their vintage.

B8. Chronic-disease prevalence

Three defensible figures for adult obesity in the United States sit between 37 and 41 percent. They measure different things. One is a county average of modeled estimates built from what people said. One is a national estimate built from what a technician measured, for adults aged 20 and over. One is that same national estimate on the narrower age range the historical series runs on. Round any of them to "about forty percent" and the differences vanish, and so does the reader's ability to check them. This exhibit gives each basis once. No report then has to restate it.

The county basis, which is what Report 2 uses

Table B8a. Crude adult prevalence in the 2,928 counties Report 2 analyzes, percent. Basis: model-based small-area estimates, not direct measurements of any county; crude, not age-adjusted, because age is a covariate in Report 2's models; denominator is adults aged 18 and over resident in the county; obesity is body mass index at or above 30.0 kg/m², calculated from self-reported weight and height in the survey; diagnosed diabetes and high blood pressure are self-reports of having been told by a health professional. Each statistic below is an unweighted mean or median across counties, not a population-weighted national rate. Vintage: CDC PLACES, 2025 release, modeled from Behavioral Risk Factor Surveillance System 2023 data. Source: Report 2, eTable 1, Panel A, which cites PLACES County Data (GIS Friendly Format), 2025 release, CDC, accessed September 8, 2026.

Measure	County mean (SD)	County median (IQR)	County minimum to maximum
Adult obesity	37.4 (4.74)	38.0 (35.0-40.4)	16.7-52.9
Diagnosed diabetes	13.6 (2.76)	13.3 (11.8-15.2)	4.9-27.1
High blood pressure	38.7 (5.40)	38.5 (35.3-42.0)	17.3-59.8
Current cigarette smoking	15.8 (3.47)	15.6 (13.6-17.8)	6.4-39.8

Two limits travel with this table. Kentucky and Pennsylvania are absent. The PLACES 2025 release carries no estimates for either state on measures built from 2023 data, so their 187 counties sit outside Report 2's analysis, along with two further counties and 27 county equivalents that no ZIP code area could be assigned to. The second limit is in how the estimates are made. PLACES models prevalence partly from the same county characteristics that Report 2 enters as covariates, so adjusting for those characteristics removes some modeled prevalence by construction. Report 2 says so in its own limitations. Smoking is in the table because Report 2 uses it as a negative control. It is not a nutrition therapy indication.

The national basis, measured, adults aged 20 and over

Table B8b. National adult prevalence, percent, from measured height and weight. Basis: National Health and Nutrition Examination Survey, August 2021 to August 2023; height and weight measured by trained technicians in a mobile examination center, not self-reported; obesity is body mass index at or above 30.0 and severe obesity at or above 40.0; age-adjusted figures use the direct method to the US Census 2000 estimates with the age groups 20 to 39, 40 to 59, and 60 and over. Source: NCHS Health E-Stat 111, "Prevalence of Overweight, Obesity, and Severe Obesity Among Adults Age 20 and Older: United States, 1960-1962 Through August 2021-August 2023," National Center for Health Statistics, February 2026, read September 22, 2026. The same 40.3 percent age-adjusted estimate was first published in NCHS Data Brief No. 508, September 2024.

Measure	Age group	Age-adjusted	Crude
Obesity	20 and over	40.3	40.3
Severe obesity	20 and over	9.7	9.4
Overweight	20 and over	not reported here	32.1
Obesity	20 to 74	40.8	not reported here
Severe obesity	20 to 74	10.2	not reported here

The 20-to-74 rows exist because the survey's historical series runs on that age range, back to 1960. Compare today's prevalence with a figure from the 1960s or the 1970s and you are on the 20-to-74 basis whether the sentence says so or not. On that basis the current age-adjusted figure is 40.8 percent. It is not 40.3.

Why the county mean and the national estimate differ

The gap between 37.4 and 40.3 is not a disagreement to be split. Four differences produce it. Any one of them is enough to make the two figures non-substitutable.

Self-reported against measured. The county estimates rest on heights and weights that respondents gave in a telephone health survey. The national estimates rest on a technician's scale and stadiometer in a mobile examination center. Body mass index computed from the two is not the same quantity. B8 does not read the difference between 37.4 and 40.3 as the size of that measurement gap, because none of the sources here measures it.

Adults 18 and over against adults 20 and over. The two denominators are not the same population.

An unweighted county average against a population estimate. Table B8a's 37.4 is the mean of 2,928 county values. A county of 192 residents counts as much in it as a county of 9.7 million. It is not an estimate of the share of US adults with obesity. It should never be read as one.

Coverage. Kentucky and Pennsylvania are missing from the county figures entirely, and Connecticut is unrepresented in Report 2's analysis for a separate reason.

How to write these numbers

Name the survey, the years and the denominator at the point of use, every time. "PLACES 2025 release, Behavioral Risk Factor Surveillance System 2023 data, crude, adults 18 and over, county mean." Or "NHANES August 2021 to August 2023, age-adjusted, adults 20 and over." The bare phrase "about 40 percent" carries none of that. A reader cannot check it.

The eight companion manuscripts were searched on September 22, 2026, for "PLACES" and for chronic disease prevalence figures. County prevalence is used as data in Report 2 only. Report 7 refers to Report 2's use of it and states no prevalence figure of its own. The national rows above are here so that any report or post needing one takes it from a single place.

Which reports this exhibit feeds

Report 2, and any report or post that states a chronic-disease prevalence figure.

Checked at release

Reconfirmed on September 29, 2026: the survey's own site lists data files, examination data among them, for the August 2021 to August 2023 cycle and none for the 2025 to 2027 cycle, for which it lists survey documents only, so Table B8b stands as printed.

Nothing else in B8 is open. The county figures are fixed by Report 2's analysis and do not move.

B9. Entry-credential timeline

The Dietetics Workforce Reports, Introduction. Reference exhibit. Basis: the rule as the issuing body wrote it, not as a secondary source summarizes it. Feeds Reports 1, 5 and 6. **Built September 22, 2026**; every date below was read at the issuing body's own document, and those readings are dated in the table.

This exhibit exists so that the series states one date per rule, on one basis, and so that a reader can tell an accreditor rule from a certification-board rule. Those two instruments do different things to a field's degree production, which is the distinction Report 1 measures.

B9.1 Bachelor's-to-graduate entry mandates

A bachelor's-to-graduate mandate is a rule making a graduate degree the minimum entry credential where a bachelor's degree previously sufficed.

Field	Body that made the rule	What kind of instrument it is	Decided	First bound	The body's own document, and the date it was read
Dietetics	Commission on Dietetic Registration	Certification board. Binds individual candidates. Accredited bachelor's programs stay open; their graduates need a graduate degree as well	At its April 2013 meeting	January 1, 2024	*Graduate Degree Registration Eligibility Requirement: Frequently Asked Questions*, February 2020 (the document that states the 2013 action); *2024 Graduate Degree Requirement: Registration Eligibility*, the Commission's own page. Both read September 15, 2026; both re-read at the captured documents September 22, 2026
Athletic training	Commission on Accreditation of Athletic Training Education	Accreditor. Binds programs, enforced by withdrawal of accreditation	May 17, 2015, jointly by the AT Strategic Alliance; announced May 20, 2015	Start of the fall 2022 term	*Standards for the Accreditation of Professional Athletic Training Programs* (July 1, 2012, editorial revision February 25, 2022); *The Professional Degree*, with frequently asked questions (the Commission's page as published May 25, 2015); AT Strategic Alliance, *Strategic Alliance Degree Statement*, May 20, 2015. All read September 15, 2026; re-read at the captured documents September 22, 2026

Field	Body that made the rule	What kind of instrument it is	Decided	First bound	The body's own document, and the date it was read
Physician assistant	Accreditation Review Commission on Education for the Physician Assistant	Accreditor. Binds programs, enforced by withdrawal of accreditation	Stated in a 2011 Commission document	Students who matriculate after December 31, 2020, that is who first enroll or register in physician assistant coursework on or after January 1, 2021; accreditation withdrawn for non-compliance from January 1, 2021	*Standards Degree Deadline Issue*, 2011. Read September 15, 2026; re-read at the captured document September 22, 2026
Occupational therapy	Accreditation Council for Occupational Therapy Education	Accreditor. Binds programs, enforced by accreditation status	At its August 1999 meeting	January 1, 2007	*I. Introduction*, accreditation standards front matter (document dated June 8, 2020). Read September 15, 2026; re-read at the captured document September 22, 2026

Basis: accreditor rule against certification-board rule. The athletic training, physician assistant and occupational therapy rules are accreditor rules. They close bachelor's entry inside accredited programs, and a program that does not comply loses accreditation. The dietetics rule is a certification-board rule. It leaves accredited bachelor's programs open and moves the requirement onto the candidate: a bachelor's degree plus accredited supervised practice no longer establishes eligibility, and a graduate degree is additionally required. In the terms the sociology of professions uses, the Commission on Dietetic Registration operates a private registry. That is closer to certification than to licensing. Nothing in this exhibit should be read as a licensing rule.

The completions data are consistent with that difference. In 2024, on the provisional federal completions file, 55.3 percent of dietetics completions were still awarded at the bachelor's level. In athletic training the figure was 22.3 percent. The dietetics rule binds candidates rather than programs, and Report 1's design cannot separate the rule from other explanations, low pay among them (Report 1).

Cohorts bound. Each rule reaches a different group, and the wording matters.

- **Dietetics.** The requirement applies to anyone seeking eligibility for the registration examination for the first time on or after January 1, 2024. Those who established eligibility on or before December 31, 2023, are not required to hold a graduate degree. The graduate degree, like the bachelor's degree before it, may be in any area, provided the institution is accredited by a body recognized by the United States Department of Education or is a foreign equivalent.
- **Athletic training.** Baccalaureate programs may not admit, enroll or matriculate students into the athletic training program after the start of the fall term 2022. When the decision was announced in 2015, the accreditor stated that students then enrolled would not need a master's degree to be eligible for the certification examination.
- **Physician assistant.** The rule bound programs accredited before 2013 that did not already confer a graduate degree. Programs accredited from 2013 had to confer one from the start.
- **Occupational therapy.** Entry-level occupational therapy programs had to be offered at the postbaccalaureate level by January 1, 2007 to receive or maintain accreditation status.

Source Each body's own document as named in the table. Reproduced in Report 1, Data and methods and Appendix J, which carry the same dates with the same citations; Appendix J also names the earlier moves in physical therapy, nurse-midwifery, and orthotics and prosthetics.

B9.2, on the physical therapy row deleted from this exhibit, is in Appendix A.

B9.3 What is a different class of rule, and is therefore not dated here

Three fields in the series comparison sets raised an entry credential that was **already** at graduate level, from a master's degree to a doctorate. That is a different treatment. Inside Report 1's observation window, 2010 to 2024, each of the three was already at graduate entry, so the escalation moved output within graduate study rather than out of the bachelor's level. This exhibit does not date those rules. Report 1 treats physical therapy, nurse anesthesia and audiology separately and carries each one's citation there.

Registered nursing and respiratory therapy are in the Report 6 comparison at an undergraduate entry credential and are not subject to a graduate mandate at all. Report 6's Table 1 prints each occupation's current entry credential; this exhibit prints when a credential changed, which is a different statement.

What this exhibit does not show

- **A rule date is not a behaviour date.** These are the texts of rules. They say whom each rule applied to and from when. They do not say how many students were affected, when students or institutions changed what they did, or whether they did.
- **It attributes no motive and measures no rationale.** Where a body stated reasons, Report 1 quotes them as the body's own reasons and tests none of them. Nothing here says why any body acted.

- **It is not a count of programs out of compliance.** Under the dietetics rule a bachelor's didactic program remains a route to registration eligibility when combined with a graduate degree. An institution that did not add a graduate degree in the field code is not thereby out of compliance.
- **Four rows are not a sample.** These are the bachelor's-to-graduate mandates identified in the series comparison sets. This exhibit makes no claim about health professions outside those sets.

Checked at release

Re-read on September 29, 2026: the Commission on Dietetic Registration's 2024 graduate degree requirement page and the Commission on Accreditation of Athletic Training Education's professional programs page carry the same text as when read on September 15, 2026, so the dietetics and athletic training rows stand as printed. On the same date the docket of the consolidated cases recorded no order after the stay of June 24, 2026, and the Federal Student Aid interim list carried no revision after July 10, 2026 (Exhibit B5).

Exhibit basis in one line: four bachelor's-to-graduate entry mandates, each date read at the document issued by the body that made the rule, with the kind of instrument stated for each, because an accreditor rule and a certification-board rule leave different amounts of bachelor's production in place.

B10. Companion-reports map

The Dietetics Workforce Reports, Introduction. Reference exhibit. Basis: each report's own abstract and its own limitations section, not this exhibit's reading of the report. Feeds every report. Built September 22, 2026, from the manuscripts as they stood that day (report numbering per `JASON_ANSWERS.md`, corrected September 22, 2026, which supersedes `SERIES_ARCHITECTURE.md` section 2).

This exhibit exists so a reader opens one table before any single report, and afterward, so no report is mistaken for measuring what a neighboring report measures. The "what it does not show" column is copied from each report's own limitations section or its own scope statement; nothing in this column is this exhibit's inference.

B10.1 Reports 1 through 6

Report	The question it asks	What it uses	What it does NOT show
1. Entry requirements and degree production, thirteen fields	What happened to degree production in thirteen graduate-entry health professions as several raised their entry credential, and where dietetics and athletic training sit against the federal professional-degree borrowing category	IPEDS completions 2010–2024 (provisional 2024 file); OEWS May 2025 wages; the accreditor and certification-board rule dates in Exhibit B9; Federal Student Aid's interim professional-degree designations	Causation: the design is ecological, and the two contracting fields are also the set's two lowest-paid, so a mandate account and a wage account cannot be separated for them. Not a count of new registered dietitians: completions are degrees, not credentialed entrants, and in the mid-2010s roughly half of dietetic-internship applicants were not matched. Does not project supply, which the Commission on Dietetic Registration's own workforce projections (Gellar et al., 2026) do on a different method. Does not measure how much of athletic training's decline the pandemic contributed. The $59,000 figure is a difference in federal borrowing capacity, not what any student actually borrows.
2. Practice locations, prevalence and rurality, 2,928 counties	Whether county dietitian supply tracks chronic-disease prevalence, and whether that reflects nutrition-specific need rather than the same place characteristics any health measure would show	The NPPES provider file (August 10, 2026, release); CDC PLACES 2025; a ZIP-to-county crosswalk; Census SAIPE, rural-urban and population data; adult smoking as a negative control	Causation: the design is cross-sectional and ecological. Not a count of the credentialed workforce: the provider file held 0.63 records per Commission on Dietetic Registration registrant (a ratio, not a coverage rate), and dietitians without a billing identifier are not counted. Does not measure access, utilization, telehealth across county lines, or patient outcomes. The negative-control comparison assumes smoking and each disease are comparably strong markers of the place characteristics they share, which cannot be checked directly.
3. Medicare nutrition therapy: where the limits live	Which legal instrument holds each limit on Medicare's medical nutrition therapy benefit, whether each has been formally reconsidered, and what fee-for-service claims for 2010–2025 show on spending and denials	The statute, regulations, National Coverage Determinations and their decision memoranda, Federal Register notices, bill texts, and the CMS Physician/Supplier Procedure Summary for the nutrition-therapy and diabetes self-management training codes	Why any limit was set or why any figure moved: the study is descriptive and makes no causal claim. Counts services, not beneficiaries or sessions. Fee-for-service carrier claims only, excluding Medicare Advantage and other health plans (55.7 percent of Part B enrollees in 2025). Records no reason for denial. Legal revisability (which body can reopen a limit) is not political revisability (whether it would).

Report	The question it asks	What it uses	What it does NOT show
4. OEWS and ACS coverage and comparability, 37 occupations	Whether excluding the unincorporated self-employed biases Occupational Employment and Wage Statistics wages as estimates of all workers' earnings, and whether the mean or the median compares better between OEWS and the American Community Survey	OEWS May 2025 national estimates; American Community Survey 2024 one-year Public Use Microdata (with a pre-stated replication on the 2023 file)	A corrected or "true" wage for any occupation. The median's comparability advantage was concentrated in three occupations' upper tails and was not confirmed in the pre-stated 2023 replication (52 percent of pairs, $p = .37$). Household-reported self-employment income is taken at face value, though the self-employed underreport income by about 25 percent on average; scaling for that reverses the sign of the largest changes. The null on the self-employment exclusion is not extended to occupations below the report's inclusion floor.
5. What pay equity adjustments do to the pay ratio, seven systems	What a dietitian-to-physical-therapist (physiotherapist) pay ratio does inside statutory pay-equity instruments that, in the methods the report reads, compare each profession to a male comparator, never to each other (Ontario's proxy method is not read)	Public pay schedules and statutory instruments from Ontario, Quebec, the United Kingdom, Ireland, New Zealand, Alberta and British Columbia, each read at its own effective date	A general estimate of what a pay-equity statute does to relativities: five events, two against printed counterfactuals, are read for what they show in those instruments, not for a general effect. No headcounts, only scheduled rates. Does not evaluate whether either profession's job evaluation is correct.
6. Wages, borrowing limits and the professional-degree list	What the 2026 federal professional-degree classification and the 2024 graduate-degree registration requirement together do to the arithmetic of entering clinical dietetics: the wage ladder, the financing model, and the list itself	OEWS May 2025 national and hospital-industry wages; CPI-U; Current Population Survey annual averages; Consumer Expenditure Survey 2024 living-cost budgets ($37,400 and $43,200, decision D5); Public Law 119-21 and Federal Student Aid's interim professional-degree designations	Why dietetics is not on the interim list, or any body's reasons: that is Report 7's question, not this one's. Any causal or projected effect of the 2026 borrowing limits on how many people enter the profession, which cannot be measured until cohorts have borrowed and entered repayment. Whether the occupation's sex composition bore on the classification decision. The amortization matrix runs on an illustrative, not a measured, principal.

B10.2 Report 7

Report	The question it asks	What it uses	What it does NOT show
7. What the federal rulemaking record shows, 2025 to 2026	What the public record of the rulemaking that classified professional degrees for federal borrowing purposes shows: what was filed, what the Department answered, and what the record does not show, about dietetics' absence from the interim professional-degree list	The statute; the hearing notice and transcripts; the negotiated rulemaking committee's published documents; the notice of proposed rulemaking and the final rule with its preamble; the rulemaking and hearing dockets, read through the federal rulemaking portal's public interface; court filings; Federal Student Aid's interim list	Deliberations, private communications, or any person's or body's reasons for acting. No count of the people who commented: docket counts are of posted documents on a stated date, not of people or organizations, and the sets different search terms return overlap and are never added. No proof that any body did nothing. Not comparative: says nothing about how any other country classifies or finances training in dietetics. Explains no decision.

Report 7 ships with the September 29, 2026, release, version 1.0, and Report 6 cites it by report number.

B10.3 Report 8, a separate row with its own status

This row stands alone by design. No sentence elsewhere in this introduction depends on Report 8's findings, and this row states none of them.

Report	The question it asks	What it uses	What it does NOT show
8. Same grid, different rung: dietitian and physiotherapist pay inside twelve public pay instruments and the US federal schedule	What twelve public pay instruments, the seven Report 5 reads among them, show about the same class of pay-relativity question	Twelve public pay instruments; Report 8 states its own method and scope	Not stated in this exhibit; Report 8's own limitations section states it.

Status, as of September 29, 2026: Report 8 ships with the September 29, 2026, release, version 1.0, at 10.5281/zenodo.23044630. Nothing in the introduction or in Reports 1 through 7 depends on it.

B10.4 Shared exhibits, for reference

The exhibits below are built once, here in the Introduction, and are cited by report number rather than restated with new figures in the reports that use them (`BUILD_PLAN.md`; `SERIES_ARCHITECTURE.md` §3.1).

Exhibit	Feeds
B1. The wage benchmark (OEWS May 2025)	Reports 1, 4, 5, 6
B2. Who counts as a dietitian (four universes)	Reports 1, 2, 4, 6
B3. Sex composition	background
B4. The pipeline series, 2014–2025	Report 1
B5. Credential cost and financing constants	Reports 1, 6
B6. CPI-U 2015–2025	any real-wage sentence in any report
B7. Medicare nutrition therapy price, re-derived at build time	Report 3
B8. Chronic-disease prevalence, basis stated per figure	Report 2
B9. Entry-credential timeline	Reports 1, 5, 6
B10. This exhibit	all reports

B10.5, the author's own published commentary, is listed in Appendix A.

Source. Each report's own abstract and limitations section (or, for Report 3, its Summary's "Limits" paragraph and "What these figures are not," which serve the same function under a different heading), read from the manuscripts on disk on September 22, 2026. Report numbering from `JASON_ANSWERS.md`.

Where two figures in this series look like a disagreement

Six pairs of figures in these reports read at first glance as a contradiction and are not. Some are two statistics of one distribution, one rule read over two spans or one series read to two endpoints; the others are two different quantities that share a number, and each entry says which. They are set out here so that a reader who notices one does not have to work out which of the two is wrong, and so that nobody "fixes" a figure that is correct.

The dietitian hourly wage, $37.08 and $36.73. Report 6 prints the first and Report 4 the second. They are the hourly mean and the hourly median of the same May 2025 wage distribution, and both reproduce from the survey's national file. Exhibit B1 labels each.

The enrollment fall, 42.0 percent and 41.3 percent, and 56.4 percent and 56.3 percent. The accreditor's tables now run to 2025 while earlier material stated the fall to 2024. In each pair the first figure is the fall measured to 2024 and the second is the fall measured to 2025. The first pair is enrollment across all program types; the second is didactic-program enrollment alone. Exhibit B4 prints both endpoints for both series, and the reconciliation note below uses the same two.

The federal tranche, $41,000 and about $71,000. These are the same statutory annual limit read over two sequence lengths, two academic years and about three and a half. Report 1 uses the first and Report 6 the second, and each states its sequence length in the sentence that uses it. Exhibit B5 prints the reconciliation with the sequence length on every row.

Consumer price growth from 2015 to 2025, 35.8 percent. An earlier figure of 35.9 percent circulated inside this work and reached one manuscript. It could not be reproduced from the published series on any straightforward reading, and the manuscript was corrected. Exhibit B6 states the growth rate once, with both endpoint index values printed beside it.

$35,000 appears twice and means two different things. Exhibit B5 prints a supervised-practice component of about $35,000 inside the illustrative $161,000 principal, and that component stands. It is not the retired $35,000 living-cost budget, which was withdrawn across the series in favour of the Consumer Expenditure Survey 2024 figures of $37,400 and $43,200 that Exhibit B5 also carries. The two are unrelated quantities that happen to share a round number, and a search for the figure alone will keep returning both.

An amount of about fourteen dollars appears in two places and only one of them is current. The $14.15 per-service figure is a calendar year 2002 construct. The calendar year 2026 amount for group nutrition therapy in the non-facility setting is $14.48. The two sit thirty-three cents apart and describe different codes and different years. Exhibit B7 works both of them out.

Note on earlier figures provided to an Academy workforce task force

Reconciliation, dated September 29, 2026.

In July 2026 the author prepared two documents on the dietetics workforce and provided them to staff at the Academy of Nutrition and Dietetics: a three-page summary and a fourteen-page briefing document, both dated July 29, 2026. Neither was published. They were written before the analyses in this series were complete, and three figures in them are corrected here. The corrections are set out with the figure this series uses and the reason each changed.

Earlier text	Figure this series uses	What changed and why
"Dietetics enrollment fell 42% from 2014 to 2024"	Enrollment across all program types accredited by the Accreditation Council for Education in Nutrition and Dietetics, 24,423 in 2014 to 14,170 in 2024, down 42.0 percent; and to 14,336 in 2025, down 41.3 percent. Didactic programs alone fell from 17,719 to 7,732, down 56.4 percent (accreditor program statistics, 2025 edition).	The arithmetic is right and the basis was missing. The 42 percent is the accreditor's total across every program type, not the didactic programs, which fell further. Enrollment is also a stock, not a count of people finishing training: a longer program raises enrollment at constant intake. Both endpoints are given because the series reports to 2025.
"In 2023, unfilled dietetic-internship seats (2,405) outnumbered filled ones for the first time on record"	April and November rounds combined, 2023: 4,202 openings in the match, 1,797 matched and 2,405 unfilled at the match (openings less matched, as Report 1 derives it). On each published basis 2023 is the earliest year with more unfilled than filled positions in the accreditor's series, which runs from 1993 to 2023 for the combined rounds and from 2007 to 2024 for the April round.	The year and the count are right. "For the first time on record" is a priority claim that the published series cannot carry, so it is replaced by the span the series actually covers. The accreditor ended the match after the spring 2024 round, so the series is closed. The count is of openings unfilled at the match, not internship seats left empty.
"As of July 1, 2025, the OBBBA caps federal graduate borrowing at $100,000 for programs not on the professional-degree list"	The provisions apply to periods of instruction beginning on or after July 1, 2026 (Public Law 119-21, section 81001, enacted text). Outside the professional degree category the limits are $20,500 a year and $100,000 in aggregate; inside it, $50,000 a year and $200,000 in aggregate, within a lifetime limit of $257,500.	The effective date was wrong by a year. The $100,000 figure and the category are right. A student enrolled in a program and borrowing for it on June 30, 2026, keeps the earlier limits for the lesser of three academic years or the rest of the program, so the change does not reach every borrower at once.

The two documents also carried statements this series does not use: a comparison of the nutrition therapy payment with a physician office visit, a statement that the codes' relative value had not been revisited since about 2002, a count of covered diagnoses, workforce-composition percentages, and a private-credit interest rate. Searched on September 25, 2026, no report in this series compares the nutrition therapy payment with an office visit. Exhibit B7 re-derives the 2002 amount and the 2026 amounts from the relative value files, Report 3 names the covered conditions without counting them, Exhibit B3 records that no primary source for a composition figure was located, and Report 6 states the private-credit rate it models.

The corrections change a basis, a span and a date; the enrollment fall, the 2023 excess of unfilled over matched openings, and the $100,000 limit outside the professional degree category all stand. The first makes the enrollment fall harder to read as a fall in people finishing training, which the series addresses by measuring completions instead. The second narrows a claim about precedence to the period the data cover. The third corrects a date without changing which programs sit inside the borrowing category.

Individual recipients of the July 2026 documents are not named here; naming the documents and the date is what this correction needs.

Discussion

The findings side by side. Dietetics' graduate-degree requirement first bound candidates on January 1, 2024 (Exhibit B9). In the federal wage survey for May 2025, dietitians had the lowest mean and the lowest median annual wage of the seven clinical occupations in Exhibit B1 (Report 4). For periods of instruction beginning on or after July 1, 2026, federal borrowing outside the professional degree category is limited to $20,500 a year and $100,000 in aggregate, against $50,000 and $200,000 inside it (Exhibit B5). The Department of Education's final rule of May 1, 2026, left dietetics outside the category, for reasons Report 7 sets out. As Report 3 read the record to September 11, 2026, the limit on Medicare nutrition therapy hours had not been formally reconsidered since 2002, nor the preventive counseling determinations since 2011. The series sets these facts side by side and does not claim that one caused another.

This series is descriptive throughout, apart from the author's commentary section that follows. No report claims a causal effect of the 2026 professional-degree classification, of any accreditor action, or of any Academy of Nutrition and Dietetics policy on the outcomes it measures, and no report attributes motive to the Academy, the Commission on Dietetic Registration, or their officers. Where a report states that something was not found, whether a source, a comparable study or a filed comment, it names the search, the date, and where it looked, rather than asserting that the thing does not exist.

Reports 7 and 8 are both part of the September 29, 2026, release.

Author's commentary: demand for nutrition expertise and dietitian pay

Added in version 1.1, September 30, 2026. This section is the author's commentary, the part of the Introduction that argues rather than describes. No companion report relies on it. Report 9, released with this version, checks one form of its argument.

The argument. In the author's view, nutrition has drawn a great deal of public attention for about two decades. It is a subject of the wellness market and of efforts to prevent and manage chronic disease, and among the most discussed subjects in American health. The labor-market textbook makes a prediction. When demand for a skill grows faster than the supply of people trained in it, the pay of those who hold it rises relative to other work. The author's argument is that dietitian pay does not reflect the demand that this attention implies.

What the series' figures show. In the federal wage survey for May 2025, dietitians had the lowest mean and the lowest median annual wage of the seven clinical occupations in Exhibit B1. The mean was $77,130, and at the mean the dietitian wage is 73.3 percent of the physical therapist wage (Reports 4 and 6). The textbook predicts a change in relative pay, not a rank. Evidence on change is thin. The survey's median dietitian wage rose from 69.9 to 74.3 percent of the median physical therapist wage between May 2023 and May 2025 (Report 4). The mean rose from 71.0 to 73.3 percent. That is the direction the textbook predicts, in a survey the Bureau of Labor Statistics does not encourage using over time. Supply has not shrunk.

Completions in dietetics, counting every award level, fell 30.4 percent from 2014 to 2024 on the provisional 2024 federal file (Report 1). Registered dietitian credentials held grew from 93,432 in September 2015 to 114,391 in September 2026 (Report 6). Report 1 cannot separate the fall in completions from low pay as an explanation.

Why it is not yet a finding. The series documents pay, entry, borrowing and Medicare's limits. Demand itself is not measured. The national projections the Commission on Dietetic Registration commissioned from Mathematica set baseline demand ten percent above supply. That ten percent is an assumption, not a measurement (Exhibit B2). Interest is also not paid demand. Wages follow what employers and payers will pay for a dietitian's time, not how often nutrition is discussed. The public's interest may be met in part by products, advice and practitioners outside dietetics. The author has not measured how much. Medicare's nutrition therapy benefit, which Congress wrote for services by registered dietitians and nutrition professionals, covers diabetes and certain kidney disease. Its allowed charges on the physician and supplier claims Medicare publishes for fee-for-service, summed over published cells, were at least $13,405,259 in 2025, 31.8 percent below their 2019 peak in constant 2025 dollars. Report 3 states that its claims series supports no inference about demand or access. In England the two professions are placed on the same national pay band, and in Canada's national wage data for 2023 to 2024 the dietitian median is 0.96 of the nurse median; in the United States the dietitian mean is about three-quarters of the nurse mean (May 2025). Report 6 reads these as context, not like-for-like measurements. They point at how pay is set as a rival explanation.

How one form of it has been checked. Report 9 sets dated public measures of need for and interest in nutrition beside dietitian pay, with use of Medicare's nutrition therapy benefit as context rather than as a measure of demand. It checks one prediction: if the dietitian shortage forecast in 2012 had developed, dietitian pay would have risen relative to comparable clinical occupations by 2020. Its hypothesis, the result that would count against it and a list of what the author had already seen, which may have included the relative-pay series itself, were dated and timestamped before the two wage files it compares were downloaded. On the comparison fixed in advance, dietitian pay did not rise measurably relative to those occupations from May 2012 to May 2020, though the result depends on which occupation sits at the median. Outside the tested window, relative pay was 2.0 points higher in May 2025 than in May 2012, a descriptive figure (Report 9). Report 9 cannot say why, and it checks one form of the argument, not the whole of it. This section remains commentary.

Limitations

This report is a frame, not a study: it draws no sample and estimates no model of its own, other than the Exhibit B7 re-derivation. Its exhibits are only as current as the source each cites at the point of use; where a figure could not be reconciled across sources, the Dietitian Licensure Compact count for example, this report omits it rather than print an unreconciled number, on the same rule the companion reports follow. Each companion report's own limitations section is the authority for its findings; this report does not restate them.

Conclusion

Set side by side, the companion reports show that dietetics raised its entry degree on January 1, 2024, and that in the federal wage survey for May 2025 dietitians were paid least of seven clinical occupations. They also show that the 2026 federal rule left dietetics outside the professional degree borrowing category, and that Medicare's hours limit and preventive counseling determinations have not been formally reconsidered since 2002 and 2011. The series claims no cause. This report states once each figure the companion reports share, with its date, basis and owning report, so that a reader opening any companion report starts from the same checked ground. It also corrects three earlier figures of the author's own.

Data availability

All primary sources cited in the exhibits above are public and are cited in full with issuing body, vintage and retrieval date at the point of use. Deposited with this report as it stands: the exhibit-generation code, being `B1_B6_regen.py`, which rebuilds the wage and consumer price tables from the primary files, and `B7_rederive.py`, which re-derives the calendar year 2026 Medicare amounts from the conversion factor and the relative value file, each with its dated run output (both scripts read the primary files from the author's working folder, by paths written in the scripts, and those files are not in the record); the four source records that document the figures in Exhibits B1 to B9, figure by figure, with the date each was read (Exhibit B10 gives its own source); the validity gate, `gate_r0.py`, with its negative controls and the record of its final run (the gate reads the author's working files for the companion reports and does not run from the data record alone); the dated verification sheet; and a SHA-256 manifest of every deposited file. The author's build log and placeholder register are not deposited. Version 1.1 adds commentary, points to Report 9 and rewords the status note; no exhibit, table or exhibit code changed. Version 1.1 of the data record keeps the version 1.0 archive unchanged, with the gate as run on version 1.0 (323 checks), and adds a supplement holding this version's text, the gate as run on it (324 checks) and the record of that run. Version 1.2 appends dated corrections and an update line and brings the version history and references up to date; no exhibit value or exhibit code changed. Version 1.2 of the data record keeps the version 1.0 archive and the version 1.1 supplement unchanged and adds a supplement holding this version's text, the gate as run on it (399 checks), a set of checks that runs from the supplement alone, and the records of those runs. Data record, version 1.2: 10.5281/zenodo.23573748; version 1.1: 10.5281/zenodo.23063466; version 1.0: 10.5281/zenodo.23044632. Report record, version 1.2: 10.5281/zenodo.23573747; version 1.1: 10.5281/zenodo.23048635; version 1.0: 10.5281/zenodo.23044562.

How this report was checked

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every number in the text, other than calendar years and identifiers, was matched by the validity gate to a value in the author's working files for the companion reports or in this report's source records, and AI review agents read the text separately for statistics, sources, consistency and disclosure.

A validity gate of 399 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

Corrections

Corrections to this report are dated, labelled and appended, stating what was wrong, where it came from, who identified it and whether the argument survives; the argument is never silently rewritten. This report's own reconciliation note, above, follows that same form for figures issued before this series existed.

Correction, version 1.2, October 22, 2026. The commentary section said that in Canada's national wage data for 2022 to 2023 the median wages of dietitians and nurses "are nearly equal". The sentence repeated Report 6 as published in version 1.0. That version used the 2024 file of Employment and Social Development Canada's Wages data. The file covers 2022 to 2023. In it the dietitian median is 0.99 of the nurse median. A newer file, published on November 19, 2025, covers 2023 to 2024. In it the ratio is 0.96. Report 6 version 1.1 uses the newer file, and the commentary now gives the same period and ratio. The sentence was the author's, in drafting. An AI agent the author directed found that it no longer matched Report 6. That was on October 2, 2026, when Report 6's correction was built. The correction makes the contrast with the United States a little smaller. Canada is at 0.96 and the United States at 0.76. No exhibit value or finding changes, and the argument is unaffected.

Correction, version 1.2, October 22, 2026. The report described its data record inexactly in eight places. It said that the build log is deposited with the report. It is not. The public copy left out build logs and placeholder registers. It said that the four source records document every figure in the ten exhibits. They cover Exhibits B1 to B9. Exhibit B10 gives its own source. The status note, repeated in the section on how the report was checked, said that every number was matched by the validity gate to a value in the deposited files. The gate read the author's working files for the companion reports. It does not run from the data record alone. One file path named a folder that is not in the record. Report 1's financing model is `base/financing_model.py` in its data record. The sentence on ownership said that each report holds the data, the code and the checks. That holds as far as the report's own Data availability section lists them. The text also left out that the two exhibit scripts read the primary files from the author's working folder. That folder is not in the record. The text now says what the record holds. Version 1.2 of the data record adds a supplement. It holds this version's text, the gate as run on it, a set of checks that runs from the supplement alone and a verification addendum. A read-only AI audit the author directed found these statements on October 2, 2026. No finding changes, and the argument is unaffected.

Updated October 22, 2026: the declaration of conflicting interest was corrected and now discloses more. Its last clause now says that no product or service of the company is described or cited in the analysis or findings of the report. The sentence on what the Bureau of Labor Statistics says about comparisons over time, in Exhibit B6, now follows the Bureau. The statement on the use of artificial intelligence now includes searching and screening the literature. The version history now lists the corrected versions of Reports 1 to 10. The references to Reports 1 to 7 and 9 cite those versions. The status note and the section on how the report was checked now print 399 checks, up from 324. None of this changes a finding.

Version history

Series version history, for this report and the companion reports it points to (decision D6, and the version-history location settled in `BUILD_PLAN.md` item 6). Reports 2 to 5 cite this table rather than carrying their own:

Report	Version	Date	Note
Introduction (this report)	1.0	September 29, 2026	First publication.
Introduction (this report)	1.1	September 30, 2026	Adds the author's commentary section on demand for nutrition expertise and dietitian pay, which points to Report 9's check of one form of its argument; status note and AI-use statement reworded (they now say the author checked the report through a review he directed and reviewed the results, sources and text, and the earlier sentence that the recomputations were not reviewed by a person is removed); Reports 9 and 10 added to this table. No exhibit, table or finding changed; the commentary cites figures owned by the companion reports. The validity gate was re-run.
Introduction (this report)	1.2	October 22, 2026	Two dated corrections: the commentary's sentence on Canada's median wages now follows Report 6 version 1.1, which reads the newer Canadian file (2023 to 2024) and gives a dietitian-to-nurse ratio of 0.96, not 0.99. Eight statements about what the data record holds are corrected: it holds no build log, its source records cover Exhibits B1 to B9, and the gate reads the author's working files and does not run from the record alone. Also updated: declaration of conflicting interest; the statement on the use of artificial intelligence now names literature searching; one sentence on the Bureau of Labor Statistics in Exhibit B6; version history and references; check count. No exhibit value or finding changed.
Report 1	1.0	September 29, 2026	First publication.

Report	Version	Date	Note
Report 1	1.1	October 22, 2026	Dated correction: the report described its data record inexactly in 21 places, the main one that the search strings and screening record of its September 15, 2026, literature search were deposited with the data. They were not. Data record version 2.4.0 adds them, with the other task folders its gate reads, and drops the abstracts of third-party articles from two search files. The search and its result are unchanged. Also updated: declaration, status and AI-use wording; one trend phrase; one reference's title and issue corrected; Data availability, Methods and appendix wording. No finding changed.
Report 2	1.0	September 29, 2026	First publication.
Report 2	1.1	October 22, 2026	Two dated corrections: Data availability said the report record holds the PDF, the HTML source and the figure files. It holds one PDF, and the figure files are in the data record. And the report and its supplement described the data record inexactly in eight places, among them the code behind the results, the analysis code, the result tables and the manifest of archived inputs; the data supplement of this version adds the analysis scripts, the manifest and the log of the September 29, 2026, gate run. Also updated: the supplement is now published with the report; the eTable 10 note and the Figure 1 alt text corrected; declaration, status and AI-use wording; check count. No finding changed.
Report 3	1.0	September 29, 2026	First publication.
Report 3	1.1	September 30, 2026	Dated correction to the plain-language summary's description of the nutrition therapy benefit; status note and AI-use statement reworded, as in the Introduction. No figure, table or finding changed.
Report 3	1.2	October 22, 2026	Three dated corrections: CMS used section 1861(ddd) five times in October and November 2011, not twice in November 2011. The 2024 amendment of 42 C.F.R. § 410.130, and of § 410.140, which removed the glucose-test criteria from the definition of diabetes, is now recorded. And the report described its data record inexactly in eighteen places, among them that a copyrighted law-review article it cites was not redistributed, when data versions 1.0 and 1.1 carried a scan of it, in error. Data version 1.2 omits the scan, the fee schedule files that include copyrighted code descriptors and the files that print private persons' contact details, carries only the values the analysis reads from the fee schedule files, without the descriptors, and adds the missing files that could be shared. Also updated: declaration; the 2011 requester named as the American Dietetic Association; Figure 1 redrawn with no plotted value changed; wording; AI-use statement; check count. No finding changed.
Report 4	1.0	September 29, 2026	First publication.
Report 4	1.1	October 22, 2026	Dated correction: the report described its data record and its sources inexactly in fifteen places. It said the record held the underreporting results, every analysis script and result file and a manifest of every archived input, which version 1.0 of the record largely lacked; it called its literature-search record completed, though the record holds an unfinished Google Scholar search; and it printed the hashes of two plans that the deposited copies do not match. Data record version 1.1 adds the missing files that can be shared and the plans as hashed. Also updated: declaration, status and AI-use wording; one standard error in Appendix B, for physical therapists, corrected from 1.2 to 1.1; the abstract and Conclusion now say the two questions are set out in a timestamped plan for retest, not that they are registered; check count. No finding changed.
Report 5	1.0	September 29, 2026	First publication.
Report 5	1.1	October 22, 2026	Two dated corrections: the abstract and other places said that pay equity statutes compare female job classes with male comparators "never with each other", which does not hold for Ontario's proxy method, a method the report does not read; and the report described its data record inexactly in twenty-five places, among them that the instruments were not redistributed, when version 1.0 of the data record carried the text of Quebec's Pay Equity Act, a text of the New Zealand settlement agreement made by optical character recognition and one page image of the Quebec accord (version 1.1 of the data record omits the text of the Act and carries the other two with their sources). Also updated: declaration, status and AI-use wording; references and Data availability; the abstract shortened by wording only; wording made exact in three places; check count. No finding changed.
Report 6	1.0	September 29, 2026	First publication.
Report 6	1.1	October 22, 2026	Two dated corrections: Canada's ratio of dietitian pay to registered-nurse pay is 0.96, not 0.99. The report used an older Canadian wage file (2022 to 2023) when a newer one (2023 to 2024) was available. Table 2, Figure 2 and the text now use the newer file, and the nurse level is $78,500, not $76,000. And the report described its data record inexactly in seven places, among them that every reported number was regenerated from the deposited code and that third-party documents were not redistributed, when data version 1.0 carried one saved page from a public directory of accredited programs (data version 1.1 omits it and adds the author's scripts and recorded results for the figures version 1.0 did not carry). Also updated: England's pay-scale figure now comes from the 2026/27 scale, which moves its level from $56,000 to $60,000 and leaves its ratio at 1.00; declaration, status and AI-use wording; the wording on the Bureau of Labor Statistics; a note to Table 1 on the hospital mean for chiropractors; one sentence on a directory search made exact; check count. No finding changed.
Report 7	1.0	September 29, 2026	First publication.

Report	Version	Date	Note
Report 7	1.2	October 22, 2026	Dated correction: the report described its data record inexactly in 22 places, among them that Appendix B has 116 rows (it prints 129), that the quotation register was deposited with one row for each quotation, that every archived file matched its recorded checksum (twenty-three did not) and that the scripts for each task were deposited (one is not, and the scripts and the gate read the author's working folder). Two other sentences, one in the Glossary and one in Appendix B, were also inexact. Data record version 1.1 adds the missing files that can be shared. Also updated: declaration, status and AI-use wording; two court-search records reduced to the fields the report relies on; check count. No finding changed.
Report 8	1.0	September 29, 2026	First publication.
Report 8	1.1	October 22, 2026	Three dated corrections: the data record's effective-date audit recorded earlier columns than Table 1 reads for three instruments (England, Ireland and the Australian federal award; the ratio is 100 percent in both columns). One sentence on the Australian award's Level 1 pay points now gives the award's own labels. And the report described its data record inexactly in 16 places, and the contents of Report 4 in one, among them that an effective-date audit of every figure and the search record were deposited (the record holds an audit of eleven rows and an earlier, separate search log; data record version 1.1 adds the search records for section 2, a Victoria file with all nine paired cells and hashes for seven sub-folder documents). Also updated: declaration, status and AI-use wording; section 2 now counts ten PubMed queries, not nine; three sentences on the Australian award now dated as consolidated to July 1, 2026; check count. No ratio, range or finding changed.
Report 9	1.0	September 30, 2026	First publication.
Report 9	1.1	October 22, 2026	Two dated corrections: the report said the Bureau of Labor Statistics "cautions against" comparing its wage survey over time, when the Bureau says it does not encourage time-series use of its data (the text and Figure 1's source line now use the Bureau's words); and the report described its data record inexactly in eight places, among them that the gate matched every number to a deposited value and that the deposit held the code that reads every source (version 1.1 of the data record adds retrieval records and corrects its notes). Also updated: the note to the 0.7 row of Appendix Table A1; the 2012 task force's wording; the article's 78 percent figure beside its 75 percent; one sum, now about 6.5; declaration; AI-use wording; check count. No finding changed.
Report 10	1.0	September 30, 2026	First publication.
Report 10	1.1	October 22, 2026	Two dated corrections: no script in the published data record wrote the block `persons_by_year` of its text-values file, and run in the README's order that archive passed 340 of its 342 checks (data record version 1.1 adds the script); and the report described its data record inexactly in six places, among them that the survey files are not redistributed, when the record holds the rows extracted from them. Also updated: declaration and AI-use wording; code and outputs for six comparable professions added to the data record; the gate passes 342 of 342 from the archive. No number or finding changed.

Ethics

This report and the series it introduces use publicly available aggregate data and did not constitute human subjects research; institutional review board approval was not required.

Glossary

Shared across the series, so each companion report can keep a short local glossary rather than restate these in full. Terms are listed alphabetically by the short form a reader will meet first.

ACEND. The Accreditation Council for Education in Nutrition and Dietetics, which accredits dietetics education programs. An accreditor binds programs; a program that does not comply loses accreditation.

ACS and PUMS. The American Community Survey, a household survey run by the US Census Bureau, and its Public Use Microdata Sample, the person-level records released from it. The survey counts persons, and occupation is reported by the respondent.

Age-adjusted and crude prevalence. A crude rate is the share of a population with a condition. An age-adjusted rate reweights that population to a standard age distribution so that two populations of different ages can be compared. The two are not interchangeable and Exhibit B8 prints both where the source publishes both.

CDR. The Commission on Dietetic Registration, the certification board that awards and holds the registered dietitian credential. A certification board binds individual candidates rather than programs, which is the distinction Exhibit B9 turns on.

CIP code. A Classification of Instructional Programs code, the federal field-of-study code under which an institution reports a degree. Dietetics is CIP 51.31.

Conversion factor. The dollar multiplier Medicare applies to relative value units to produce a fee schedule amount. It is set annually and, from calendar year 2026, there are two of them. A Medicare amount quoted without naming its conversion factor and its year cannot be checked.

CPI-U. The Consumer Price Index for All Urban Consumers, the price series Exhibit B6 carries and the one every constant-dollar sentence in this series rests on.

CPS. The Current Population Survey, the monthly household survey whose annual averages Exhibit B3 uses for sex composition.

Didactic program and supervised practice. The two stages of the traditional route to the dietitian credential: coursework in an accredited program, then an accredited supervised-practice program. A Future Education Model graduate program delivers both in one program, which is why Exhibit B4 labels the program types separately.

Facility and non-facility. The two Medicare fee schedule settings. The same code carries different relative values in each, and for the nutrition therapy codes in calendar year 2026 the facility amount runs roughly thirty percent below the non-facility amount. Comparing one against the other manufactures a gap.

Federal-access gap. The difference between what a student may borrow from the federal government inside the professional-degree category and outside it, over a stated sequence length. It is a difference in borrowing capacity, not in borrowing.

General Schedule and full performance level. The United States federal civilian pay schedule, and the grade at which an occupation's normal career progression tops out without promotion to a supervisory post. Report 5 reads both professions on one such schedule.

IPEDS. The Integrated Postsecondary Education Data System, the federal collection that reports degree completions by CIP code. Completions are degrees awarded, not people credentialed.

NPPES. The National Plan and Provider Enumeration System, the federal file of provider identifiers. It records listed practice locations, and its taxonomy codes are chosen by the provider and are not checked against any registry.

OEWS. The Occupational Employment and Wage Statistics survey, which collects wages from employers. It counts jobs at surveyed establishments, not people, and excludes owners and partners in unincorporated firms, employees of private households and unpaid family workers; Report 4 reads it to include the incorporated self-employed.

PLACES. The Centers for Disease Control and Prevention's small-area estimates of health measures. They are modeled estimates for a county, not direct measurements of it.

Published-cell estimator and exact bounds. Two ways of handling a data source that suppresses small cells. The estimator works from the cells that were published; the exact bounds give the range the suppressed cells could take. Report 3 uses both and names which is which.

Relative value unit, work and total. The units Medicare assigns to a service. The work unit measures the practitioner's effort alone; the total is work plus practice expense plus malpractice. Medicare pays on the total, and a figure derived from the work unit alone is well under half the schedule amount.

Schedule amount. The fee schedule figure for a service. For medical nutrition therapy furnished by a registered dietitian or nutrition professional, the statutory basis for payment is 85 percent of it, and the amount is paid to whoever bills the service.

Sequestration. The across-the-board reduction applied when a Medicare claim is paid, capped at 2 percent for a fiscal year. It is not built into the fee schedule, so the amounts in Exhibit B7 are before it.

Within-state models. Regression models that compare counties only against other counties in the same state, so that anything constant within a state cannot drive the result. Report 2 uses them.

References

Every source cited in the ten exhibits above, and in the reconciliation note. Where a figure is owned by a companion report, that report is cited and the primary source behind it is cited as well, so that a reader can go to either.

Accreditation Council for Education in Nutrition and Dietetics. Dietetics education program statistics, 2000 to 2025. Chicago, IL: ACEND; file created March 27, 2026. Retrieved August 3, 2026; archived copy SHA-256 51e6406be5a092ced15578ac5adb917d99254305a0bc53d9e0a33293ec49b496.

Accreditation Council for Occupational Therapy Education. I. Introduction, accreditation standards front matter. Document dated June 8, 2020. Read September 15, 2026; re-read at the captured document September 22, 2026.

Accreditation Review Commission on Education for the Physician Assistant. Standards degree deadline issue. 2011. Read September 15, 2026; re-read at the captured document September 22, 2026.

American Association of Nurse Practitioners v. McMahon, No. 1:26-cv-01780, and PA Education Association v. United States Department of Education, No. 1:26-cv-01941 (D.D.C., consolidated). Memorandum opinion and order of June 24, 2026 (Howell, J.), ECF Nos. 45 and 46.

AT Strategic Alliance. Strategic alliance degree statement. May 20, 2015. Read September 15, 2026; re-read at the captured document September 22, 2026.

Balanced Budget and Emergency Deficit Control Act, 2 U.S.C. section 901a(6)(A), as amended. United States Code, preliminary text current through Pub. L. 119-75. Read September 22, 2026.

Centers for Disease Control and Prevention. PLACES: local data for better health, county data, GIS friendly format, 2025 release, modeled from Behavioral Risk Factor Surveillance System 2023 data. Accessed September 8, 2026.

Centers for Medicare and Medicaid Services. Medicare program; revisions to payment policies under the physician fee schedule for calendar year 2002. 66 Fed. Reg. 55,246 (November 1, 2001), at 55,278 and 55,320, and Addendum B at 55,464.

Centers for Medicare and Medicaid Services. Medicare program; payment policies under the physician fee schedule and other revisions to Part B for calendar year 2011. 75 Fed. Reg. 73,170 (November 29, 2010), at 73,417 and 73,421 to 73,422.

Centers for Medicare and Medicaid Services. Medicare and Medicaid programs; payment policies under the physician fee schedule for calendar year 2026. 90 Fed. Reg. 49,266 (November 5, 2025), at 49,960 to 49,961.

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Tables

This report presents no table of its own. Every table belongs to the exhibit that carries it, or, in Appendix A, to the exhibit it was moved from, and is read with that exhibit's units and basis lines. The labelled tables are Table B1 (wage benchmark), Table B6 (consumer price index), Table B7 (Medicare nutrition therapy amounts, calendar year 2026), and Tables B8a and B8b (chronic-disease prevalence, county basis and national basis). The tables in exhibits B2, B3, B4, B5, B9 and B10 are unlabelled and are identified by the exhibit section that carries them.

Figures

None. Every exhibit in this report is a table or a statement of a rule, and none of the ten warranted a figure: each is a small number of rows that a reader checks against a source, which a chart would make harder rather than easier. The figures in this series belong to the reports that derive them.

Appendices

Appendix A holds, unchanged, five passages the exhibits point to: the reconciliation of the federal tranche figures (B5), the history of the consumer price growth figure (B6), the reverse-check for staleness (B7), the deleted physical therapy row (B9.2) and the author's own published commentary (B10.5). The one derivation this report runs, Exhibit B7, carries its arithmetic in the exhibit itself, so no worked-arithmetic appendix is needed. The figure-by-figure source records for Exhibits B1 to B9 are deposited with the report rather than printed here; Exhibit B10 gives its own source.

Appendix A. Detail moved from the exhibits

The federal tranche reconciliation

Two federal tranche figures appear in the series and they are not in conflict. They are the same statute read over two different sequence lengths, and each sentence that uses one carries its sequence length.

Basis	Sequence	Gross federal entitlement	Net of the 1.057 percent loan fee	Figure carried
Report 1, and this exhibit	2 years	$41,000	not applied	$41,000
Report 6	about 3.5 years	$71,750	$70,992	about $71,000
Report 6, counterfactual at the professional degree limits	about 3.5 years	$175,000	$173,150	$173,150

The Report 6 arithmetic: $20,500 a year over three and a half years is $71,750, and less the 1.057 percent loan fee that applies to that disbursement window it is $70,992, against the approximately $71,000 carried. **This exhibit reproduced that arithmetic on September 22, 2026 and confirmed that Report 6 prints the reconciliation**, in the note to its Table 4. The third row is Report 6's counterfactual: the same sequence read against the professional degree limits of $50,000 a year and $200,000 in aggregate.

Why this exhibit uses the two-year basis. Carrying a 3.5-year basis here, beside Report 1's two-year basis, would split the same $161,000 principal two ways. The private residual would be $120,000 in Report 1 against about $90,000 here, and no document would explain the difference. A 3.5-year sequence also rests on two assumptions that the statutory text read on September 15, 2026 does not settle: that a separate internship's costs are

federally loan-eligible, and that a half academic year carries half the annual limit. The statutory text read contains a proportional reduction only for less-than-full-time enrollment. The two-year basis removes both assumptions, so the series adopts it here and Report 6 keeps its own longer sequence with the sequence length stated in every sentence that uses it.

The growth figure, and the one it replaces

From the 2015 annual average of 237.017 to the 2025 annual average of 321.943, the change is 35.8312 percent, which prints as 35.8 percent. The corresponding factor for converting 2015 dollars to 2025 annual-average dollars is 1.358312.

An earlier figure of 35.9 percent was in circulation inside this work and reached one manuscript. The portfolio consistency review of September 15, 2026, pulled the series live and could not reproduce it from any straightforward reading of the published values. The likeliest explanation is that it was written before the 2025 data existed to complete. The manuscript was corrected. Report 6 now prints 35.8 percent with both endpoint index values at the point of use, and B6 is where the series states the growth rate once so that nobody re-derives it.

The number is also unusually stable for a dated value. Every index value above is a published annual average and none of them is provisional. The only thing that could move the 2025 figure is the Bureau publishing an October 2025 index after the fact, which would change the annual average and therefore the growth rate. That is the one thing the check at release, printed in Exhibit B6, looks for.

Reverse-check for staleness

A Medicare rate carries its year inside it and goes stale without changing appearance. That is why the build plan requires B7 be re-derived rather than carried forward from a prior report, a chart or an advocacy document. Two checks were run on September 22, 2026.

First, a mechanical one. Each of the ten 2026 amounts was tested against every conversion factor from 2002 and from 2010 through 2025, holding total relative value units at their 2026 values. The test asks whether a 2026 amount also reproduces on a prior-year factor. None does.

Second, the figure most easily mistaken for a current rate. A $14.15 per-service amount is a CY2002 construct and reproduces exactly: 0.46 × $36.1992 × 0.85 = $14.15. The 0.46 is the CY2002 total relative value unit for 97802, identical in both settings that year, and $36.1992 is the CY2002 conversion factor (66 Fed. Reg. 55,246, 55,320 and Addendum B at 55,464, November 1, 2001). Two things follow. The relative values were revised upward after 2002, so a statement that they were set then and left alone is contradicted by the file: 97802 went from 0.46 in both settings to 1.10 non-facility and 0.79 facility. And $14.15 is a fifteen-minute individual-visit amount, which in 2026 runs from $18.74 to $31.23 depending on the code and the setting. The near miss is worth naming. The 2026 group figure of $14.48 non-facility sits thirty-three cents from $14.15. A reader who remembers "about fourteen dollars" will find a current number that appears to confirm it, in a different code and a different year.

B9.2 The row that was deleted, and why

Physical therapy, a post-baccalaureate entry minimum reported as 2002: DELETED, not softened.

The date appears in secondary sources, including a state board rule published in the *Pennsylvania Bulletin*, secondary summaries and a lecture article. It could not be found in any document issued by the Commission on Accreditation in Physical Therapy Education or by the American Physical Therapy Association.

What was searched, when, and where. On September 15, 2026, capteonline.org, apta.org and Internet Archive copies of both were searched, along with several web queries combining the accreditor's name with "post-baccalaureate", 2002, "31 December 2001" and "1 January 2002". On September 22, 2026, the fourteen Commission and Association captures held in this dossier were re-read for every occurrence of "2002". Four of them carry the string, twenty-two times in all. The occurrences are a World Health Organization citation in the Commission's news archive; two position-paper adoption dates (April 2002 and November 2002); five revision-date entries in the Commission's rules of practice and procedure; and fourteen date labels in tables of program counts, graduation rates, licensure pass rates, admissions, enrollment and faculty turnover in an aggregate program data file. None states a post-baccalaureate entry requirement taking effect in 2002.

The date is unverified, not disproved. It is removed because it could not be checked at a document issued by the body that would have made the rule, not because a different date was found. Report 1 removed the same clause from its Methods and from its generalizability section on the same grounds rather than hedging it, and this exhibit follows that decision.

What would close it: a document issued by the Commission or the Association that states the effective date, for example a pre-2002 edition of the Commission's *Evaluative Criteria* or an archived accreditation handbook. The Commission's news archive says a presentation on its own history is available by email request, which would mean contacting the body directly.

B10.5 The author's own published commentary, for scale

Two pieces of the author's own prior published commentary mention subjects this series analyzes in depth. They are cited here as published work, not as findings of this series, and neither carries the claims analysis, the documentary record, or the instrument analysis that the relevant report carries:

- Fee, J. (2026). The slow collapse of the US's clinical nutrition workforce. *Health Affairs Forefront*, July 16, 2026. https://doi.org/10.1377/forefront.20260713.293991

- Fee, J. (2026). A master's degree, an associate's wage: Why nutrition policy is outrunning the workforce behind it. *Nutrition Today*. Advance online publication, August 14, 2026. https://doi.org/10.1097/NT.0000000000000827

Report 3 documents where these published pieces, and a docket comment the author filed on August 6 2026, describe Medicare's nutrition therapy benefit less precisely than Report 3 itself does: the pieces count and name the covered conditions, and the comment attributes the visit-hour limits to the regulation rather than to National Coverage Determination 180.1. Report 3's own text carries those corrections, and they are not repeated here.

Report 1

Raising entry requirements and degree production: evidence from thirteen graduate-entry health professions, 2010 to 2024

Dietetics and athletic training in a thirteen-field comparison

The Dietetics Workforce Reports, Report 1, version 1.1
A research report series from Vitae Arete LLC
October 22, 2026

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These reports are self-published and are not journal publications; see the status note.

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In brief

What it asks. Did degree output fall more in health fields that newly required a graduate degree?

What it finds. Between 2014 and 2024, dietetics and athletic training, both newly requiring a graduate degree, had the two largest declines of the thirteen fields compared (−30.4 and −32.4 percent on the provisional 2024 file). Physician assistant output grew under a graduate requirement adopted in the same window, and low pay could explain the same pattern, so these data cannot separate the rule from the pay.

What it adds. A search of four literature databases on September 15, 2026, found no study measuring degree completions across several fields around such transitions, and the projections commissioned by the Commission on Dietetic Registration do not estimate new entrants separately.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every number the report computes was regenerated from the deposited code (run on the raw files and cache it names) and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 37 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Disclosures

Declaration of conflicting interest. The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of one of the professions whose degree production is analyzed. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data; this report uses the same data series for its wage comparisons. He owns Vitae Arete LLC, which offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession, publishes commentary on dietetics workforce policy, and publishes this report series. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce and has advocated for changes in dietetics workforce and Medicare payment policy. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; the findings reported here do not by themselves support those proposals. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is

paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He repays federal student loans and is enrolled in Public Service Loan Forgiveness. Apart from those loans and his employment by AdventHealth, which sponsors that internship and operates AdventHealth University, which offers programs in physical therapy and nursing, he has no financial relationship with any lender, university or education program in any of the thirteen fields analyzed and, outside the employment and company ownership disclosed above, has received no grants, honoraria, consulting fees, speaker fees or other third-party payments related to the subject of this work in the past five years. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this report (see How this report was checked). He is credentialed by the Commission on Dietetic Registration, whose graduate degree requirement and commissioned projections this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings. No commercial product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report; the note on earlier public figures (Appendix G) refers to the author's own earlier workforce writing, including the memorandum on the company's website.

Funding. None. The author received no financial support for the research, authorship or publication of this report.

Abstract

Background. Dietetics began requiring a graduate degree for entry on January 1, 2024, as several health professions had before it. A review of such transitions found little evidence on their effect on supply, and a search of four literature databases on September 15, 2026, found no study measuring degree completions across several fields around them.

Objective. To compare degree production in health fields that newly required a graduate degree with other graduate-entry health fields.

Methods. A descriptive comparison of federal completions data (Integrated Postsecondary Education Data System, 2010 to 2024; 2024 provisional) for thirteen graduate-entry health professions, with 95 percent intervals, alternative base and end years, a bachelor's-entry control panel, the accreditor's counts for dietetics, and a test of low pay as a rival explanation.

Results. From 2014 to 2024, dietetics and athletic training had the two largest declines of the thirteen (30.4 and 32.4 percent on the provisional 2024 file; 23.4 and 29.8 percent to the revised 2023 file; intervals in Appendix A); no other field fell more than 11 percent. In both, a move from a bachelor's to a graduate entry degree took effect after 2014, when most of their completions were bachelor's degrees (71.7 and 79.8 percent). Physician assistant studies made the same move with 6.8 percent at that level and grew 71.5 percent. The accreditor's count of dietetics didactic-stage graduates fell 33.8 percent. The contracting fields are also the two lowest-paid; among the ten fields without such a rule, wage and completions growth showed no detectable association (rank correlation +0.21, $p = .56$), but ten fields cannot rule out a strong one.

Conclusions. Degree output fell most where a new graduate-degree requirement met a field still producing mostly bachelor's degrees. The design is descriptive and cannot separate the requirement from low pay.

Keywords: credential requirements; degree production; IPEDS; health professions education; federal student aid; postsecondary policy

Key findings and what this report does not show

What the data show

- Of thirteen graduate-entry health professions measured the same way from federal completions data, dietetics and athletic training had the two largest declines in degree completions from 2014 to 2024: 30.4 and 32.4 percent on the provisional 2024 IPEDS file, and 23.4 and 29.8 percent to the revised 2023 file. They are the two largest declines measured to 2024 from every base year from 2011 to 2018, though not at every pairing of base and endpoint (Appendix A).
- Both are fields whose move from a bachelor's to a graduate entry degree took effect after 2014, while most of their output was at the bachelor's level (71.7 and 79.8 percent of 2014 completions). Physician assistant studies made the same move with 6.8 percent of its 2014 completions at the bachelor's level, and grew 71.5 percent.
- The accreditor's own counts for dietetics, which use no federal program codes, show the same fall: didactic-stage graduates fell 33.8 percent from 2014 to 2024, and supervised-practice graduates fell 27.5 percent from 2019 to 2025 (Appendix L).
- The two contracting fields are also the two lowest-paid of the thirteen. Among the ten fields without an in-window bachelor's-to-graduate mandate, May 2025 mean wage and completions growth show no detectable association, but ten fields cannot rule out a strong one, so these data cannot separate the new requirement from low pay.

What this report does not show

- It does not show that the entry requirements caused the declines. The design is descriptive, and the two contracting fields are also the two lowest-paid in the set, so low pay and the new requirement cannot be separated as explanations for them.
- Completions count degrees, not new registered dietitians. In the mid-2010s about half of the applicants to the dietetic internship match were not matched on the match date (in 2015, 50.2 percent of applicants to the April round were matched or preselected, and 49.0 percent across that year's April and November rounds combined, with rates of 47 to 56 percent on either basis from 2013 to 2017, not counting placements

made after the match date), so the bachelor's decline cannot be read one for one as a fall in new practitioners. The accreditor's supervised-practice graduate series (Entry to practice) is the closer measure.
- It does not measure how much of athletic training's decline the pandemic contributed.
- It does not project supply. National projections commissioned by the Commission on Dietetic Registration (Gellar et al., 2026) project the dietitian registry forward from its 2020 to 2025 compound growth rate and set baseline demand 10 percent above estimated 2025 supply; their supply model does not estimate new entrants separately from exits (Gellar et al., 2026, pp. 8–9, 12).
- The 2024 completions file is provisional; as checked on September 29, 2026, NCES had posted no revised 2024 file and no 2025 file, and the 2024 file was the one used, so the dietetics count has not moved.

Plain-language summary

Dietetics now requires a graduate degree to become a registered dietitian, a rule that took effect in 2024. This report counts the degrees awarded each year from 2010 to 2024 in thirteen health professions that require a graduate degree, using the same federal data and the same method for each. Between 2014 and 2024, degrees fell most in dietetics and athletic training, by about 30 percent each (the margins of error are in Appendix A), while most of the other fields grew. Both had recently moved their entry requirement from a bachelor's to a graduate degree while most of their graduates still earned bachelor's degrees. Physician assistant studies made the same move after almost all of its graduates were already earning master's degrees, and its degrees grew. The dietetics accreditor's own counts show the same fall. The two shrinking fields are also the two lowest-paid in the group, so these data cannot say whether the new requirement, the low pay, or both drove the decline.

The one sentence to repeat: degree output fell most where a new graduate-degree requirement met a field still producing mostly bachelor's degrees, and low pay could explain the same pattern.

Introduction

Dietetics began requiring a graduate degree for entry to the profession on January 1, 2024, after athletic training and physician assistant studies had made the same move. This report asks whether degree output fell more in the health fields that newly required a graduate degree than in other graduate-entry fields measured the same way. The answer matters to the program directors, accreditors and credentialing bodies that plan for the supply of new practitioners. A search of four literature databases on September 15, 2026, found no study measuring degree completions across several fields around such transitions, and the national projections commissioned by the Commission on Dietetic Registration do not estimate new entrants separately.

Occupational credentials are set by professional bodies but produced by universities. When an accreditor or a certification board raises the degree required to enter a field, postsecondary institutions adjust: under an accreditor rule a program must lengthen, close its undergraduate pathway, build a graduate one or exit, and under a certification-board rule an undergraduate program can continue while its graduates need a further degree. The decision is made outside higher education and the adjustment happens inside it.

Degree requirements have been ratcheting upward across the American labor market for decades (Collins, 2019). Much less is known about the specific case in which a credentialing body converts an entire field's entry requirement by rule, on a dated schedule, with accreditation as the enforcement mechanism. These are unusually sharp events. They are announced years in advance and they apply to a whole field at once, though the instrument varies: an accreditor rule binds programs, with accreditation withdrawn for non-compliance, while a certification-board rule binds candidates and can leave accredited undergraduate programs in place whose graduates are no longer eligible. They are also recurrent: audiology's certifying body required a doctorate from 2012, physical therapy's accreditation standards conferred the doctorate as the first professional degree from 2016, physician assistant programs were required to confer a graduate degree on students matriculating after 2020, athletic training closed baccalaureate entry after the fall 2022 term, and dietetics raised its entry requirement to a graduate degree on January 1, 2024.

Evidence on what these events do to degree production is thin. A recent four-profession review concluded that "there is little to no evidence on how these transitions impact workforce supply, but increased cost and time-to-degree suggest that they may negatively impact supply" (Peterson et al., 2025, p. 2). The closest empirical precedent, Herring et al. (2024), used the same federal completions data on the same class of transition and found that physician assistant programs converting from bachelor's to master's degrees experienced a 5.3 percentage point decline in Black representation and a 3.8 percentage point decline in Hispanic representation among graduates, after adjusting for state and year. That study measured who graduated. It did not measure how many. A search of PubMed, ERIC, Europe PMC and OpenAlex on September 15, 2026, combining terms for entry-level degree requirements and clinical or professional doctorates with terms for completions, degrees conferred, graduates and IPEDS, with all 2,621 records retrieved screened by title and 47 by abstract (search strings and screening record deposited with the data), found no study measuring degree completions across several fields around such transitions.

This study measures how many. It builds identical completion series for thirteen health professions that require a graduate degree for entry, and asks whether degree production moved differently in the fields that changed their entry requirement during the observation period.

For dietetics, the Commission on Dietetic Registration commissioned national workforce projections for 2025 to 2035 (Gellar et al., 2026). They project the number of credentialed practitioners forward at the registry's compound annual growth rate over 2020 to 2025 (1.3 percent a year for registered dietitians; Gellar et al., 2026, pp. 9, 20) and set baseline demand 10 percent above estimated 2025 supply, a value the authors describe as informed primarily by an employer survey, which does not directly estimate the size of the national shortage, and by consultation with the Commission (p. 12). Because the registry data do not identify individual entrants and exits, that supply model does not estimate new entrants separately (pp. 8–9). Degree production is one input to entry, so measuring it complements those projections rather than substituting for them.

One research question organizes the analysis:

RQ1. Did degree production move differently in fields subject to an in-window bachelor's-to-graduate entry mandate than in the other graduate-entry fields measured identically?

Four checks serve it: whether the ordering holds across base and end years and against a bachelor's-entry control panel; whether the share of each mandate field's output below the new floor orders the outcomes; whether the accreditor's own counts, which use no federal program codes, show the same fall; and whether low pay accounts for the pattern as well as the rule does. A supplementary, descriptive question, where these fields fall relative to the federal professional degree borrowing category and what federal borrowing difference that placement produces, is answered in Appendix M.

Hypotheses. RQ1 examines an expectation rather than a hypothesis stated in advance: that fields newly requiring a graduate degree would lose more degree output than the other graduate-entry fields. It is a descriptive comparison of thirteen fields, not a causal test, and physician assistant output, which grew under a graduate requirement adopted in the same window, counts against the expectation. The supplementary question in Appendix M is descriptive and carries no hypothesis.

The contribution is comparative rather than causal. Any single field's completion series can be questioned on coding, program length or sector cycle. Identical construction ensures that sector-wide cycles and survey-wide definitional changes reach every series through the same rule, although how far they move a series depends on its award mix (the 2020 recoding of sub-baccalaureate certificates touches only fields that award them). Field-specific coding changes do not, and the two found here, audiology's 2010 to 2011 discontinuity and dietetics' migration toward Nutrition Sciences, are examined directly; the accreditor series, which uses no CIP coding, is the answer to the second. The comparator set is graduate-heavy at baseline, so it cannot by itself separate a mandate effect from a shock specific to undergraduate production; the bachelor's-entry control panel in Appendix C addresses this.

Conceptual framework and prior research

Entry credentials as an investment decision

Human capital theory treats entry into a credentialed occupation as an investment in which prospective entrants weigh the cost of acquiring the credential against the earnings it commands (Becker, 1964). Raising the required degree raises that cost directly, through tuition and foregone earnings over a longer sequence, without necessarily raising the wage. Where the cost rises and the wage does not, entry should fall, and it should fall most where the expected return is smallest.

Signaling and credentialist accounts, research on who raises entry requirements and why, and the contrast with requirements set by employers are summarized in Appendix I.

None of these frameworks predicts the *magnitude* of a production response, and none of them predicts which fields will absorb a mandate without visible effect. That is an empirical question, and it is the one addressed here.

What is known about entry-credential transitions

The evidence base is thin. Peterson et al. (2025) reviewed transitions to clinical practice doctorates in audiology, pharmacy, physical therapy and nursing and concluded that a move to a single-entry clinical doctorate is expected to have a negative impact on supply, diversity, access to education and cost, and a neutral impact on geographic distribution and retention, while stating plainly that the evidence on supply effects is close to absent. For audiology specifically they report that the number of entry-level clinical audiology degrees awarded annually declined by one-third, from 856 to 568, between 2000 and 2014, and that audiology master's programs fell from 102 in 2001 to zero by 2007.

Herring et al. (2024) provide the closest methodological precedent. Working at the institution level with a design across 1995 to 2020, adjusting for state and year, they identified the compositional consequences of bachelor's-to-master's conversion in physician assistant education. Their design is stronger than the one used here, and the present study is positioned as complementary rather than competitive: Herring et al. establish that the conversion changed *who* graduated within one field, and this study asks whether it changed *how many* across thirteen. Two studies of athletic training's two degree levels before its 2015 decision are summarized in Appendix I; neither measured degree production.

Where this sits in higher education research

Work on institutional responses to federal regulatory change establishes that enrollment can move before a rule binds: Fountain (2019) finds that for-profit institutions saw slower enrollment growth than public and nonprofit institutions after the gainful employment regulations were proposed in 2010, while their final form remained uncertain. That setting is a contested rule of uncertain form rather than a dated and certain mandate, so it establishes the possibility of pre-binding movement rather than its expected size or direction.

The analysis also depends on IPEDS construction choices, principally the mapping of fields to Classification of Instructional Programs codes and the treatment of award levels. Those choices are stated explicitly below, because the study's central claim is a comparison between series, and a comparison is only as good as the identity of its construction.

Data and methods

This is a repeated cross-sectional, ecological analysis of publicly available aggregate data. Figures were retrieved from their issuing sources between August 1, 2026 and September 29, 2026; each reference and the data-sources table (Appendix E) give the retrieval date for that source. The study used publicly available aggregate data and did not constitute human subjects research, so institutional review board approval was not required.

Sample and its appropriateness

The analytic sample is the population of United States degree completions in thirteen fields, not a sample drawn from it. A field entered the comparison if it met all four criteria, which were specified before comparator outcome data were examined:

1. Its accreditor or credentialing body requires a graduate degree for entry to practice, in force as of January 1, 2026.
2. It maps to a single Bureau of Labor Statistics detailed occupation with published May 2025 wage estimates.
3. That occupation falls within Standard Occupational Classification group 29-0000, healthcare practitioners.
4. It is not among the professional degrees given as examples in the definition at 34 C.F.R. § 668.2 (Code of Federal Regulations, 2026), an expressly non-exhaustive list whose ten examples are pharmacy, dentistry, veterinary medicine, chiropractic, law, medicine, optometry, osteopathic medicine, podiatry and theology. This criterion removes those fields from the sample.

Thirteen fields qualified: nurse anesthesia, physician assistant, nurse practitioner, nurse midwifery, physical therapy, genetic counseling, occupational therapy, speech-language pathology, audiology, acupuncture, orthotics and prosthetics, dietetics, and athletic training. Anesthesiologist assistant fails criterion 2. Residual "all other" occupational categories are excluded. Registered nursing is reported as an undergraduate-entry contrast rather than as a comparator.

The sample is appropriate to the research questions for three reasons. It is a census rather than a sample, so the quantities reported are the population values; the frame under which tests and intervals are reported is stated under Analytic approach. It holds constant the feature that would otherwise dominate any cross-field comparison, namely whether the field requires graduate study at all, so that variation in *when* and *how much* the requirement changed is what remains. And it is constructed from a single administrative source using a single extraction rule, so that sector-wide cycles and survey-wide definitional changes reach every series through the same rule, though how far they move each depends on its award mix; field-specific coding changes do not, and those found are examined directly.

Outcome measure

The primary outcome is annual degree completions from the Integrated Postsecondary Education Data System, survey years 2010 through 2024, first majors, all award levels, revised files, with 2024 provisional (National Center for Education Statistics, 2026). Classification of Instructional Programs codes were verified against that agency's CIP 2020 dictionary. Nurse practitioner has no single dedicated program code and is proxied by the nursing family total, with the doctoral nursing practice code reported separately. Completions count degrees awarded, not people entering practice: they are a proxy for, not a count of, entrants to each credential. Why federal completions, rather than the accreditor's program reports, carry the central comparison is set out in Appendix L.

Treatment definition and exposure

A **graduate-entry mandate** is defined as a rule making a graduate degree the minimum entry credential where a bachelor's degree previously sufficed. For rules taking effect after 2014, the base year of the primary comparison, and by 2024, that describes three fields:

- **Physician assistant.** Programs not already conferring a graduate degree were required to do so for students matriculating after 2020, with accreditation withdrawn for non-compliance from January 1, 2021 (Accreditation Review Commission on Education for the Physician Assistant, 2011).
- **Athletic training.** Baccalaureate programs could not enroll students after the fall 2022 term (Commission on Accreditation of Athletic Training Education, 2026). The move to graduate entry was decided on May 17, 2015, by the board of the National Athletic Trainers' Association and the commissioners of the accreditor, with the support of the Board of Certification and the association's research and education foundation, and announced on May 20, 2015 (AT Strategic Alliance, 2015; Commission on Accreditation of Athletic Training Education, 2015).
- **Dietetics.** A graduate degree became a registration eligibility requirement on January 1, 2024, under a rule adopted in 2013 (Commission on Dietetic Registration, 2020, 2026).

The instrument differs across the three, and the difference matters for what the measure means. The physician assistant and athletic training rules are accreditor rules binding on programs, enforced by withdrawal of accreditation. The dietetics rule is a certification-board rule binding on individual candidates: accredited baccalaureate didactic programs continue, and 1,663 bachelor's completions were still awarded in the field in 2024, but for their graduates a bachelor's degree plus accredited supervised practice no longer suffices; a graduate degree is additionally required. Exposure is therefore defined uniformly, for all three rules, as the share of 2014 completions at an award level that no longer qualifies for entry after the rule.

Doctoral escalations of credentials that were already graduate-entry are a distinct treatment and are examined separately. Within the window that describes physical therapy, whose accreditation standards have conferred the doctorate as the first professional degree since the 2016 standards (Commission on Accreditation in Physical Therapy Education, 2015), and nurse anesthesia, which moved to all-doctoral entry (Council on Accreditation of Nurse Anesthesia Educational Programs, 2025). Audiology's transition began before the observation window and was complete before the 2014 base year: a transitional standard requiring 75 post-baccalaureate graduate semester hours took effect on January 1, 2007, while still permitting a master's, doctoral or other recognized degree, and the doctorate became mandatory for certification on January 1, 2012 (American Speech-Language-Hearing Association, 2026).

Because the three bachelor's-to-graduate mandates are rules of the same class but applied to fields whose output sat at very different award levels, this study uses a simple descriptive measure of how much of each field's production sat below the new floor. **Baseline exposure** is the share of 2014 completions at an award level that no longer qualifies for entry after the rule; for a bachelor's-to-graduate mandate it is the share of a field's 2014

completions awarded at the bachelor's level, 2014 being the first year of the primary comparison window. Exposure is defined only for fields subject to such a mandate; a field with no mandate has no exposure regardless of its award mix, and the measure should not be read as a property of the award distribution alone.

In two fields that made the same move before 2014, occupational therapy and physical therapy, completions fell and then rose during the 2000s (Appendix J; Appendix H). The data cannot tell whether dietetics and athletic training are on the same path.

The restriction of exposure to bachelor's-to-graduate mandates was adopted after observing that nurse anesthesia moved nearly all of its output from master's to doctoral level and grew; it is a scope limitation, not a finding. Because total change is a share-weighted average of level-specific change, part of the exposure ordering is arithmetic. Table 2 therefore reports the decomposition of each field's total change into bachelor's, master's, certificate and other contributions, and the graduate-level growth each field achieved against the growth that would have held its total flat. The decomposition, its resampling intervals and an alternative approach not used are in Appendix J.

Analytic approach

The analysis is descriptive and comparative. Percentage changes are reported between fixed years with the base year stated, and robustness is examined across every base year from 2010 through 2018 and every endpoint from 2020 through 2024, with three-year means, degree-only counts and the revised 2023 file as an alternative endpoint (Appendix A). No causal effects are estimated and none are claimed. The analysis measures degree production only and takes no position on competence, quality of care or patient outcomes. Descriptive comparison is the appropriate level of inference here because the treatment is a field-wide rule with no untreated units inside the treated fields and no plausible instrument, and because the primary threat to a single-field claim is measurement rather than confounding. What identical construction across thirteen fields can establish is that a difference is not an artifact of sector-wide cycles or survey-wide definitional change; field-specific coding changes are examined directly where found. What it cannot establish is why the difference occurred, and the Discussion treats the candidate mechanisms as unseparated.

Completions are treated as outcomes of a process. The p-values reported are randomization tests of the null that the ordering (or the two-by-two allocation) is exchangeable, not sampling inference, and intervals on rates are Wilson 95 percent intervals under the same reading. Every exit, conversion and change figure that is interpreted carries its interval (for a percentage change in completions, a 95 percent interval on the ratio of the two counts, in which the variance of each year's log count is the larger of its Poisson variance and the field's own year-to-year variance, estimated over 2010 to 2024 from how far each year's log count departs from the average of its two neighboring years); where intervals overlap, no ranking is drawn.

Reproducibility

The compiled data extracts, the extraction and analysis code and the validity gate are deposited publicly at 10.5281/zenodo.23569500 (version 2.4.0; version 2.3.0 is 10.5281/zenodo.23044649; concept DOI for all versions https://doi.org/10.5281/zenodo.21792265). Every quantity the report computes regenerates from the deposited scripts, given the raw files and cache they name. The scripts that compute the figures run exact-count asserts or pass-or-fail checks on their results and fail if any does not hold. The deposited scripts that assert nothing are scripts that fetch, search, extract text, screen or build tables, and `financing_model.py` and `reanalysis.py` in `base/`; they print what they find. This report's own validity gate checks the text against the tasks' recorded outputs: run against the final text, it traced every numeric token in the prose, tables, captions and appendices, in both numeral and spelled-out form, to a value that a deposited task recorded (in its printed results or its data files, or, for figures quoted from other studies, in the hand record `analysis/T17/T17_literature_checks.csv`) or to a stated allowlist reason (for example years, DOIs, statute and docket numbers, page numbers, CIP and SOC codes, display-item numbers; `gate/gate_tokens.csv` gives the reason for each), with zero left unmatched (the token count and the manuscript's SHA-256 are in the dated run report, deposited with `gate/gate_r1.py`). Institution-level conversion is counted under the one rule stated in Appendix B and implemented identically in the script. Scripts that read the raw IPEDS Completions files, which are public domain but too large to redistribute, name and locate those files in the deposit's documentation; the extracts they produce are themselves deposited, so no reported quantity depends on a file a reader cannot obtain.

Results

Degree production across thirteen fields

Between 2014 and 2024, dietetics and athletic training show the two largest declines of the thirteen fields (Fig. 1; full series in Table 1), and they are the two largest measured to 2024 from every base year from 2011 to 2018 and measured from 2014 to every endpoint from 2020 to 2024 (Appendix A). On the provisional 2024 file, dietetics fell from 4,316 to 3,006, a decline of 30.4 percent, and athletic training fell 32.4 percent. From 2014 to the revised 2023 file the declines are 23.4 and 29.8 percent, so neither clears 30 percent on that endpoint; measured from 2014, the ordering, not the 30 percent threshold, is the claim that holds on the revised file. The 95 percent intervals on the 2014 to 2024 changes are falls of 25.1 to 35.3 percent in dietetics and falls of 24.5 to 39.4 percent in athletic training. The two overlap, so the fields are not ranked against each other, and each includes a 30 percent fall; both lie clear of the interval for acupuncture, the next-largest decline (a fall of 24.2 percent to a rise of 4.9 percent). Checked against every pairing of a base year from 2010 to 2018 with an endpoint from 2020 to 2024, the two fields are the two largest declines in twenty-five of forty-five, including every pairing measured to 2024 from the 2011 to 2018 bases and every pairing measured from 2014. The exceptions are every endpoint from the 2010 base, the 2020 to 2023 endpoints from the 2011, 2013 and 2018 bases and the 2020 to 2022 endpoints from the 2012 base, where audiology, nurse anesthesia or orthotics and prosthetics takes one of the two places (Appendix A, Table A4); in three of the twelve pairings measured to 2024 or from 2014, both fields' intervals lie clear of the next-largest decline's. On the revised 2023 file the ordering holds from the 2012 and 2014 to 2017 bases and not from the 2011, 2013 or 2018 bases. Over the same decade, completions across all health professions rose 3.1 percent to their highest level of the fifteen years examined, and completions across all fields rose 11.0 percent.

The health-professions benchmark requires one qualification. The 3.1 percent figure is CIP 51 across all award levels, and the sub-baccalaureate certificate categories within it are not comparable across this window: the "award of less than one academic year" category reports 178,485 completions in 2014 and none in 2024, while two credit-hour-based certificate categories that did not exist in 2014 report 150,996 between them in 2024. That is a reclassification, not a collapse. Restricting the benchmark to award levels that are defined identically in both years removes the problem: **degree-level completions across CIP 51 rose 16.5 percent, bachelor's degrees 24.3 percent, and master's degrees 53.1 percent**. The comparison that bears on this study's finding is the bachelor's one, because the bachelor's degree is the level that no longer qualifies for entry under the mandates: bachelor's completions rose 24.3 percent across the health professions while falling 46.3 percent in dietetics and 81.1 percent in athletic training. The master's comparison runs the other way and is reported here for completeness rather than as support: master's completions grew faster than the 53.1 percent benchmark in all three mandate fields, including both contracting ones. Any comparison of a field's total against a benchmark subcomponent would mismatch levels, and none is drawn here. Sub-baccalaureate certificates were 2.4 percent of dietetics and 3.7 percent of athletic training completions in 2014; excluding them leaves the two fields at −30.9 and −34.4 percent on the provisional 2024 file, so the recoding does not move either point estimate across the 30 percent line. Certificates above the bachelor's level, post-baccalaureate and post-master's certificates together, are reported as their own row in Table 2; IPEDS does not identify program type, so these data cannot say how many of them are dietetic internship certificates.

Ten of the eleven fields other than dietetics and athletic training grew: genetic counseling 173.9 percent, physician assistant 71.5 percent, nurse midwifery 57.0 percent, speech-language pathology 55.5 percent, occupational therapy 50.8 percent, physical therapy 22.0 percent, orthotics and prosthetics 21.9 percent, nurse practitioner 21.8 percent as proxied by the nursing family total with the doctoral nursing practice code alone up 128.5 percent, nurse anesthesia 6.1 percent, and audiology 0.3 percent. The undergraduate-entry registered nursing contrast grew 15.8 percent. The only other decline anywhere in the set was acupuncture, at 10.8 percent. Acupuncture's decline is concentrated after 2019: from 2019 to 2024 it fell 29.8 percent (95 percent interval 17.4 to 40.3), against 19.6 percent (13.5 to 25.3) in dietetics over the same years; the intervals overlap, so the two falls are not ranked, and the decade-long window averages out the concentration of acupuncture's fall.

A cycle common to graduate-entry programs would move every series alike and does not produce that pattern. Field-specific coding changes could, and the two found in these data, audiology's 2010 to 2011 discontinuity and dietetics' migration toward Nutrition Sciences, are examined under Field-internal corroboration and in Appendix K. Because the comparator set is graduate-heavy at baseline, a shock specific to undergraduate production would show mainly in the two contracting fields. In a control panel of bachelor's-heavy health-adjacent families, bachelor's completions rose from 2014 to 2024 in every family but one, Foods, Nutrition and Related Services (CIP 19.05), which is produced mostly at institutions that host an accredited didactic program in dietetics (78.7 percent of its 2014 bachelor's completions; 95 percent interval 64.2 to 90.6) and so cannot serve as an untreated control (Appendix C).

The three in-window mandates and their exposure

All three fields subject to an in-window bachelor's-to-graduate mandate are identified above, and their outcomes differ by more than a hundred percentage points: physician assistant studies grew 71.5 percent while dietetics fell 30.4 percent and athletic training fell 32.4 percent. Baseline exposure orders them (Table 2; Fig. 2).

Physician assistant education had substantially completed its conversion before the rule took effect. Its bachelor's share had fallen from 12.8 percent of completions in 2010, a fall that spans the accreditor's October 2011 degree-deadline document. In 2014, 510 of 7,555 completions were awarded at the bachelor's level, or 6.8 percent; by 2019, 536 of 10,195, or 5.3 percent. The mandate therefore reached a residual tail of roughly one completion in fifteen at baseline, and one in twenty by 2019. In dietetics the same class of rule applied to 71.7 percent of completions and in athletic training to 79.8 percent.

The award-level signature within the two contracting fields is same-signed and its magnitude tracks exposure (Table 2). Dietetics bachelor's completions fell 46.3 percent while master's completions rose 95.5 percent. Athletic training bachelor's completions fell 81.1 percent while master's completions rose 258.6 percent, the sharper movement being consistent with an accreditor that closed bachelor's enrollment outright while dietetics' bachelor's-level didactic programs remain open.

The difference in instrument leaves different amounts of exposure in place. In 2024, on the provisional file, 55.3 percent of dietetics completions (1,663 of 3,006) were still awarded at the bachelor's level, against 22.3 percent (697 of 3,121) in athletic training. Because the dietetics rule binds candidates rather than programs, that bachelor's output continues, and its graduates need a graduate degree (which, like the bachelor's degree, may be in any area; Commission on Dietetic Registration, 2023) as well as accredited coursework and supervised practice before they are eligible for the registration examination. Resampling institutions within each field gives 95 percent intervals of 48.2 to 62.6 percent for the dietetics share and 16.4 to 28.3 percent for athletic training, and 23.7 to 42.4 percentage points for the difference between them.

Doctoral escalations of already-graduate credentials

Escalations that raised the degree within graduate study behaved differently. From 2014 to 2024, physical therapy, whose accreditation standards have conferred the doctorate as the first professional degree since 2016, grew 22.0 percent (95 percent interval 18.1 to 26.0); nurse anesthesia, while phasing to all-doctoral entry, grew 6.1 percent (a fall of 4.0 percent to a rise of 17.3 percent); and the doctoral nursing practice code grew 128.5 percent (85.9 to 180.8; Appendix A, Table A3). Nurse anesthesia is the informative case: 93.2 percent of its 2014 output was at the master's level and 4.3 percent doctoral, against 18.5 percent and 80.6 percent respectively in 2024, so nearly its entire output moved level, and production still grew. That is inconsistent with a simple account in which the volume of change alone drives the outcome. Two readings fit the case. One is a boundary effect: a student already enrolled in graduate study faces a different decision when the degree lengthens than a student who must enter graduate study at all. The other is the wage ordering: nurse anesthesia is the highest-paid field in the set by a wide margin, and an investment account predicts its growth without any boundary mechanism. These data do not separate the two.

Audiology's completions fell 37.1 percent from 2010 to 2024, the largest decline in the set on a 2010 base, but the whole fall sits in one year and one award level, the signature of a reporting or coding discontinuity at the 2010 boundary rather than a supply finding (Appendix K, which also counts the base years on which each field sits 30 percent or more below its base).

What institutions did

Institution-level exit and conversion are reported in full in Appendix B. Athletic training had the highest point estimate of institutional exit in the set on the primary definition: 38.0 percent of institutions awarding at least five completions in 2014 reported none in 2024 (95 percent interval 32.9 to 43.4). No exit finding is drawn for dietetics, because most of its apparent exits reflect institutions reporting under adjacent nutrition codes or reporting zero completions in a year. Among bachelor's-only institutions in 2014 that still reported completions in the field code in 2024, 44.4 percent (27.6 to 62.7) in dietetics and 77.9 percent (68.1 to 85.4) in athletic training had graduate output in the field code by 2024 (95 percent intervals, provisional 2024 file).

Field-internal corroboration

For the one field with a long published accreditor series, that series corroborates the federal counts (Accreditation Council for Education in Nutrition and Dietetics, 2026; Table 3; Fig. 3); its two internal confounds, program consolidation and program length, are set out in Appendix L. Graduates of programs delivering didactic preparation peaked at 7,835 in 2015 and stood at 5,068 in 2025, 35.3 percent below peak. Graduates of didactic programs alone were 3,813 in 2000, peaked at 6,889 in 2015, and stood at 3,480 in 2025. Total enrollment fell from 24,423 in 2014 to 14,336 in 2025, with a 1.2 percent uptick in the final year. Because that accreditor series involves no CIP coding at all, it triangulates the narrow federal code rather than the family bound: measured on the federal base and endpoint, didactic-stage output fell 33.8 percent from 2014 to 2024, against 30.4 percent in the federal dietetics code. The broader CIP family fell 11.7 percent with the non-dietitian residual codes growing 41.1 percent, which bounds the within-family coding migration channel. That bound leaves out Foods, Nutrition and Related Services (CIP 19.05), which the match to ACEND's directory of accredited didactic programs (as of September 15, 2026) shows is mostly produced at institutions that host such a program: 78.7 percent of its 2014 bachelor's completions (95 percent interval 64.2 to 90.6). Adding 19.05 completions at those institutions, all award levels, to the dietetics family turns the fall of 11.7 percent (95 percent interval from a 31.4 percent fall to a 16.7 percent rise) into a fall of 28.2 percent (11.5 to 41.6) from 2014 to the provisional 2024 file, and adding all of 19.05 gives a fall of 27.0 percent (12.7 to 39.3); on the revised 2023 file the corresponding falls are 3.9 and 22.1 percent. Because IPEDS cannot separate didactic-program students from other nutrition majors coded 19.05 at the same institutions, the within-family migration channel is bracketed by the figures with and without 19.05 rather than fixed by either.

Three qualifications go with the accreditor series: its base year, enrollment as a stock rather than a flow, and overlap between program series (Appendix L). Across base years 2013 to 2015 and endpoints 2024 and 2025, the fall in didactic-stage output runs from 27.9 to 36.7 percent.

The cross-family migration objection. A reader may reasonably ask whether the decline reflects students relocating to a nutrition program outside the dietetics CIP family rather than leaving the field. The largest candidate destination is Nutrition Sciences, CIP 30.19, which grew 84.8 percent over the same decade, from 2,909 to 5,377. That growth exceeds the dietetics decline in absolute terms: dietetics lost 1,310 completions while Nutrition Sciences gained 2,468; at the family level the dietetics CIP family and Nutrition Sciences combined rose 20.4 percent, from 8,754 to 10,541, although adding Foods, Nutrition and Related Services completions at the institutions that host an accredited didactic program (Appendix C) leaves that combined total roughly flat, down 3.0 percent (95 percent interval from a fall of 15.2 percent to a rise of 11.5 percent). Two things bear on it. First, the outcome is degree completions in the dietetics code, a proxy for, not a count of, entrants to the credential; the accreditor series, which counts graduates of accredited programs, is the closer pipeline measure. A Nutrition Sciences degree does not by itself confer eligibility to sit the registration examination, which requires accredited coursework and supervised practice, so a student who moves from dietetics to Nutrition Sciences without that coursework has left the credentialed track whether or not they remain in nutrition. Second, the accreditor's own series counts graduates of accredited programs directly and involves no CIP coding at any point. If the decline were migration between codes rather than contraction in credentialed output, that series would not be expected to fall. It fell 35.3 percent from its 2015 peak.

Entry to practice

Degree completions are one step removed from entry to the credential, and the closer series are in Appendix L. In dietetics, graduates of the accredited programs that include supervised practice numbered 4,870 in 2019 and 3,533 in 2025, 27.5 percent fewer (24.8 to 30.2 percent across base years 2018 to 2020 and endpoints 2024 and 2025), most of the fall coming in 2024, the year the graduate-degree requirement took effect. First attempts at the registration examination from the program pathways fell 29.9 percent in 2024 and rose 10.5 percent in 2025, still 22.5 percent below 2023. In athletic training, first-time certification examinations in 2024-25 were 40.1 percent below 2014-15. These are counts, and they cannot show what produced either field's fall.

Timing, and the pandemic

The two contracting fields do not share a shape. Dietetics peaked in 2016 and declined 13.4 percent over 2014 to 2019; athletic training peaked two years later, in 2018, and *grew* 14.5 percent over the same five years before falling 40.9 percent thereafter. Athletic training's two steepest single years are 2020 and 2021.

That pattern raises an obvious rival, because athletic training's clinical education requires athletics and sports seasons were curtailed in 2020 and 2021. Three features of the data bear on it. Athletic training's 2019 fall of 5.3 percent from its 2018 peak is consistent with onset before the pandemic but is within the series' ordinary year-to-year variation. Its nine year-to-year changes from 2011 to 2019 have a standard deviation of 7.4 percentage points around a mean rise of 4.1 percent (4.8 points around 2.2 percent without the 2012 rise of 19.9 percent), which places the 2019 change 1.3 standard deviations below the mean (1.6 without 2012); under the interval method in Analytic approach its 95 percent interval runs from a fall of 15.1 percent to a rise of 5.6 percent. Dietetics was essentially flat across the same pandemic window, rising 1.0 percent from 2019 to 2021 (95 percent

interval from a fall of 6.1 percent to a rise of 8.7 percent), so a common shock in those years does not account for the pair. And degree-level completions across CIP 51, the basis unaffected by the 2020 certificate recoding, rose 4.1 percent over 2019 to 2021 (95 percent interval, rises of 1.1 to 7.1 percent), so the sector as a whole did not contract; the all-level total, which spans the recoding, rose 1.2 percent.

The two fields do not share a calendar. Dietetics completions peaked in 2016, three years after its rule was adopted in 2013, and athletic training's in 2018, three years after its 2015 decision; two cases cannot establish that a turn follows a decision by a set interval. The pandemic plausibly deepened athletic training's decline and the design cannot rule that out; it does not explain dietetics, and it does not explain why the two peaks are two years apart.

Wage as a competing explanation

The two contracting fields are also the two lowest-paid in the set, so a selection account in which entrants avoid low-return credentials predicts the same two outcomes the mandate account does. That rival is testable across the comparison set, and the test is reported here whatever it shows.

Across all thirteen fields the rank correlation between May 2025 mean wage and the 2014 to 2024 change in completions is **+0.58** (two-sided $p = .043$, exact over all 6,227,020,800 orderings), so wage and outcome are associated across the full set. That association weakens when the two contracting fields are removed. Among the ten fields without an in-window bachelor's-to-graduate mandate (including two with doctoral escalations), it is +0.21 ($p = .56$, exact over all 3,628,800 orderings; approximate 95 percent interval −0.49 to +0.75): no detectable association, with an interval that cannot exclude a strong positive one at this sample size. The nurse practitioner point pairs a nurse practitioner wage with nursing-family completions, 82.5 percent of which were registered nursing completions in 2024; without that proxy the correlations are +0.42 across nine fields without such a mandate and +0.69 across twelve ($p = .017$). Excluding physical therapy and nurse anesthesia as well, a low-powered sensitivity across eight fields, gives +0.48 ($p = .24$, exact over all 40,320 orderings; approximate 95 percent interval −0.39 to +0.89). Every interval in this paragraph is a Fisher z interval with the Bonett and Wright (2000) variance for rank correlations, and at eight fields a two-sided test at the 5 percent level requires a correlation of at least 0.74 in either direction. Orthotics and prosthetics, third-lowest paid, grew 21.9 percent; audiology, mid-range, was flat; nurse anesthesia, the highest paid in the set by a wide margin, grew 6.1 percent.

The association across all thirteen therefore leans heavily on the two contracting fields, and those two fields are the phenomenon to be explained rather than evidence for the explanation; by the same logic, they are not independent evidence for the requirement as the explanation either. Measured against an ordinary least squares fit of percentage change on mean wage across the ten fields without an in-window bachelor's-to-graduate mandate, athletic training and dietetics are the two largest negative departures in the set. The fitted line has a slope of −1.6 percentage points per $10,000 of May 2025 mean wage (95 percent interval −10.4 to +7.1) and an intercept of +59.6 percent at a wage of zero, so across these ten fields the line does not differ detectably from flat. Athletic training sits 81.0 percentage points below the line and dietetics 77.3 below, against 56.1 for acupuncture, the next largest; neither lies outside the fit's 95 percent prediction interval (±141 and ±138 points), which is wide largely because genetic counseling sits 131.5 points above the line. Refitted without genetic counseling, the slope is −0.6 points per $10,000 and the two departures are −60.5 and −57.8, both inside that fit's prediction interval (±70 and ±68). In each of the ten refits that drop one fitted field, the two remain the largest negative departures among the other twelve fields; in the refit without nurse anesthesia, that field itself sits 101.1 points below the line fitted to the other nine, its wage lying far above theirs. Appendix A tables every field's departure under both fits. This does not establish that the mandates caused the contraction, and with two treated low-wage cases the two accounts cannot be separated for those cases. The comparison set does not show a general wage ordering, but ten fields cannot rule one out.

Discussion

What the comparison establishes

Thirteen fields measured the same way, over the same fifteen years, from the same administrative source, show their two largest declines between 2014 and 2024 in dietetics and athletic training (30.4 and 32.4 percent on the provisional 2024 file), measured to 2024 from every base year from 2011 to 2018 and from 2014 to every endpoint from 2020 to 2024, and those two are fields whose entry credential moved from a bachelor's degree to a graduate degree after the 2014 base year, with most of their 2014 completions at the bachelor's level. Identical construction ensures that sector-wide cycles and survey-wide definitional changes reach every series through the same rule, though how far they move each depends on its award mix. Field-specific coding changes do not, and the two found here are examined directly; the comparator set is graduate-heavy at baseline, which is why the bachelor's-entry control panel (Appendix C) is reported.

It does not deliver a causal estimate. Three limitations bound the inference and none is repaired by the design. The two contracting fields are also the two lowest-paid in the set. The comparison set does not show a general wage ordering (rho = +0.21 among the ten fields without an in-window bachelor's-to-graduate mandate, $p = .56$, approximate 95 percent interval −0.49 to +0.75), but ten fields cannot rule one out, and with two treated low-wage cases the two accounts cannot be separated for those cases; both are versions of the same investment calculus, in which added cost weighs most where the expected return is smallest, and these data cannot apportion between them. The inflections precede the effective dates, with dietetics completions peaking in 2016 against matriculation around 2012 to 2013, the years the requirement was decided, and athletic training peaking in 2018, ahead of the fall 2022 enrollment cutoff, while its bachelor's completions were still near their 2014 level. Enrollment moving ahead of a rule's effective date has a precedent in this literature (Fountain, 2019), although that setting is a contested rule of uncertain final form rather than a dated and certain mandate, and consistency is not demonstration. And the treatment and outcome windows are poorly aligned: dietetics' rule took effect on January 1, 2024, the final year of the window, while its production had fallen from its 2016 peak. Movement before a rule binds can come from programs as well as students; in accredited dietetics programs most of the contraction was in enrollment per program rather than in the number of programs (Appendix L).

The stated case for the requirements

The bodies that set these requirements gave reasons for them, and this analysis measures none of those reasons. The dietetics graduate requirement followed a visioning process and consensus agreement across the profession's education, credentialing and practice bodies (Kicklighter et al., 2013) and the accreditor's subsequent environmental scan, competency development and public comment (Accreditation Council for Education in Nutrition and Dietetics, n.d.). In the words of the Council on Future Practice's visioning report, raising entry-level education to the graduate level "is consistent with the knowledge, skills, and research base required in the field of nutrition and dietetics and is necessary to protect the public, remain competitive, and increase recognition and respect"; the report also noted that almost all other health care professions had raised their entry-level educational standards and that level of education influences respect as a valued member of the health care team (Kicklighter et al., 2013). The athletic training organizations stated that the move to the master's degree was essential to meeting the expectations of the health care team, continuing to improve patient outcomes and keeping the profession sustainable, as athletic trainers' role and scope of practice continue to evolve (AT Strategic Alliance, 2015). The physician assistant accreditor stated that the profession had evolved to one requiring a high level of academic rigor, which sponsoring institutions are expected to build into their programs and recognize by awarding an appropriate master's degree (Accreditation Review Commission on Education for the Physician Assistant, 2011). This report takes no position on competence, quality of care or patient outcomes.

Exposure and the physician assistant case

The physician assistant case is the one a reader will reach for first. Physician assistant education was subject to a formally identical bachelor's-to-graduate mandate inside the window and its production grew 71.5 percent from 2014 to 2024 (95 percent interval 66.7 to 76.4; Appendix A, Table A3). On a binary coding of treatment that is a counterexample. On the exposure measure it is not: the rule reached roughly one completion in fifteen at baseline, against seven and eight in ten in the two contracting fields, and the three outcomes order by exposure.

A mandate binds only the programs not already meeting it. By 2019, 5.3 percent of physician assistant completions remained at the bachelor's level, down from 12.8 percent in 2010 (counts by award level and year in Appendix D, Table D2), a fall that spans the accreditor's 2011 degree-deadline document; in dietetics and athletic training the same class of rule applied to most of each field's 2014 production.

Exposure is a descriptive quantity, not an estimated one, and three cases cannot support a dose-response claim. It is offered as a more informative coding of the treatment than a binary indicator. Its limits are visible in the same data: nurse anesthesia moved nearly all of its output from master's to doctoral level and grew. The restriction of exposure to the bachelor's-to-graduate class was adopted after seeing that case and is a scope limitation, not a finding; the case fits both a boundary reading and the wage ordering, since nurse anesthesia is the highest-paid field in the set.

Relation to prior evidence

Herring et al. (2024) and this study use the same federal dataset on the same class of transition and reach complementary rather than overlapping conclusions, because they measure different outcomes at different levels of analysis. Herring et al. asked who graduated from physician assistant programs that converted, at the institution level, and found compositional decline. This study asks how many graduated across thirteen fields, at the field level, and finds volume decline concentrated in the two highest-exposure conversions. Read together they describe the same transition from two sides: in the field where conversion touched only a residual tail of production, volume grew while composition still shifted.

Herring et al.'s institution-level design is the stronger of the two, and it indicates the next step for this line of work. The federal completions data used here are reported at the institution level, and the fields analyzed contain 227, 579 and 317 institutions respectively in dietetics, athletic training and physician assistant studies that filed a completions record in the field code at some point from 2010 to 2024 (206, 554 and 298 with at least one completion), with programs converting on different schedules. A staggered adoption design across those units would address the window misalignment described above, and is the design this study's descriptive result recommends rather than replaces.

Implications for credentialing bodies, accreditors and program directors

These implications describe what the measurements show for the bodies and programs that carry a change in entry credential. They are not recommendations about whether any requirement should change.

Exposure can be read before a rule binds. The share of current completions at an award level that would no longer qualify for entry is observable in advance from the same federal data used here. At baseline it was 6.8 percent in physician assistant studies, 71.7 percent in dietetics and 79.8 percent in athletic training, and the two high-exposure fields contracted. A conversion in a field already producing graduate degrees asks little of production; a conversion in a field producing mostly at the bachelor's level asks much more. Three cases cannot show that exposure explains outcomes, but it is a planning number available before any announcement.

The instrument decides what stays in place. An accreditor rule closes bachelor's entry in accredited programs; a certification-board rule leaves bachelor's programs open and moves the requirement to the candidate. In 2024, on the provisional file, 55.3 percent of dietetics completions were still bachelor's degrees, against 22.3 percent in athletic training. Under the dietetics rule a bachelor's didactic program remains a route to registration eligibility when combined with a graduate degree (which, like the bachelor's degree, may be in any area; Commission on Dietetic Registration, 2023), so the number of institutions that did not add a graduate degree in the field code is not a count of programs out of compliance.

The adjustment falls on institutions, unevenly. In athletic training, institutions that could not already confer graduate degrees in 2014 are over-represented among those no longer reporting completions (Appendix B), and athletic training's exit rate was the highest point estimate in the set on the primary definition and level with acupuncture's on the alternate one. Surviving institutions in the two contracting fields differed in whether they built graduate output, by a margin that is smaller counting adjacent codes (in the field code 44.4 percent (27.6 to 62.7) in dietetics against 77.9 percent (68.1 to 85.4) in athletic training, and counting adjacent codes 63.0 percent (44.2 to 78.5) against 83.7 percent (74.5 to 90.0); 95 percent

intervals, provisional 2024 file; the reduction in the gap, 12.7 points, is not distinguishable from zero (−2.0 to 29.7)). For a program director, an institution's highest level of offering is a measurable indicator of how large the move will be. Production in both contracting fields turned years before the effective date, so planning keyed to the effective date alone would have been late.

Completions are not practitioners. Degree completions are a proxy for entrants. For a credentialing body the closer measures are supervised-practice graduates and first-attempt examination candidates by pathway (Entry to practice), which can be set beside the registry-based projections the Commission on Dietetic Registration commissioned (Gellar et al., 2026).

Generalizability

The comparison can be repeated for any transition in which three conditions hold: a credentialing body external to the university sets the entry degree, the rule applies to a whole field on a dated schedule, and a substantial share of current production sits below the new floor. Whether the pattern found here recurs in such cases is an empirical question this report does not answer. Enforcement may run through accreditation, as in athletic training and physician assistant studies, or through certification eligibility, as in dietetics. Within health, the same class of rule describes occupational therapy (post-baccalaureate entry required from January 1, 2007; Accreditation Council for Occupational Therapy Education, 2020) and pharmacy's conversion to the PharmD (doctor of pharmacy standards adopted in June 1997, required of entering professional classes from academic year 2000 to 2001 and completed in academic year 2004 to 2005; Accreditation Council for Pharmacy Education, 2011). Whether dated, accreditor-set transitions of this class occur outside health was not examined for this report. The exposure measure is computable for any such transition from the same source. The conditions are least likely to transfer where the credential is set by statute rather than by an accreditor, where employers rather than students bear the cost of the added degree, or where the field's production is already predominantly graduate. The results should not be extended to those cases without measurement.

Limitations

The design is ecological and cannot establish causation. With two contracting fields that also carry the set's two lowest wages, mandate effects and wage-based selection are not separable. The field-internal decompositions rest on stock-to-flow ratios that equal time in program only in steady state, so in a contracting pipeline part of any implied duration change is mechanical. Wage estimates are point-in-time, exclude the self-employed, and in dietetics include non-credentialed nutritionists. The 2024 IPEDS file is provisional; measured from 2014, the ordering of the two declines holds on the revised 2023 endpoint while the 30 percent threshold does not, and across every pairing of a 2010 to 2018 base with a 2020 to 2024 endpoint it holds in twenty-five of forty-five (Appendix A). Coding can migrate within a CIP family, which family-level totals bound, and across families, which the Nutrition Sciences series and the control panel address. Completions count degrees, not new registered dietitians or athletic trainers, and in the mid-2010s about half of dietetics applicants were not matched, which caps what the bachelor's decline can mean for the number of new practitioners. This report does not project supply; the registry-based projections commissioned by the Commission on Dietetic Registration (Gellar et al., 2026) do, on the method described in the Introduction. Audiology's series carries a discontinuity at the 2010 boundary (Appendix K), and its transition falls outside the window in any case. The contributing forces, namely the mandates, program lengthening, pandemic disruption and wage dynamics, are not separable in these data. Athletic training is the field where that matters most: its steepest years coincide with the curtailment of the sports seasons its clinical education depends on, and although its decline begins before the pandemic and dietetics does not move with it, the design cannot quantify how much of athletic training's fall the pandemic contributed.

What would settle the question

An institution-level design that uses the different dates on which programs converted, a count of candidates reaching each credential by pathway over time, and the revised 2024 and final 2025 completions files would settle what this descriptive comparison leaves open.

Conclusion

Between 2014 and 2024, degree output fell most in dietetics and athletic training, the two of thirteen graduate-entry health professions whose entry degree moved from a bachelor's to a graduate degree while most of their output was still at the bachelor's level (30.4 and 32.4 percent on the provisional 2024 file; 95 percent intervals of a fall of 25.1 to 35.3 percent and a fall of 24.5 to 39.4 percent, Appendix A, Table A3). Physician assistant studies, under the same kind of rule but with little bachelor's output left, grew 71.5 percent, and the accreditor's counts show the same fall in dietetics. The design is descriptive, and the two contracting fields are also the two lowest-paid in the set, so these data cannot separate the new requirement from low pay.

Data availability

All primary sources are public and are cited in full with issuing body, vintage and retrieval date; the data-sources table (Appendix E) lists each with its public location. Deposited with this report: the compiled IPEDS completions extracts and raw rows, the BLS Occupational Employment and Wage Statistics extract (May 2025), the College Scorecard field-of-study debt extract (June 10, 2026, release), the Federal Student Aid materials used, the NCES CIP 2020 dictionary, the extraction and analysis code, the validity gate, the dated verification sheet, and a SHA-256 manifest of the archived inputs (`INPUT_MANIFEST_SHA256.csv`). Data record: 10.5281/zenodo.23569500, version 2.4.0 (version 2.3.0: 10.5281/zenodo.23044649; concept DOI for all versions https://doi.org/10.5281/zenodo.21792265; CC BY 4.0). Report record: 10.5281/zenodo.23569499 (version 1.0: 10.5281/zenodo.23044616).

Not redistributed: the raw IPEDS Completions and Institutional Characteristics files, which are public domain but large and are named and located in the deposit documentation with the file dates used (the provisional C2024_A file, last modified September 21, 2025, which as checked on September 29, 2026, had not been revised); and copyrighted documents of the Accreditation Council for Education in Nutrition and Dietetics, the

Commission on Dietetic Registration, the Board of Certification for the Athletic Trainer, the Commission on Accreditation in Physical Therapy Education, the Council on Academic Accreditation in Audiology and Speech-Language Pathology, the Council on Accreditation of Nurse Anesthesia Educational Programs, the Physician Assistant Education Association, the Academy of Nutrition and Dietetics and Mathematica, which are identified by citation, vintage and retrieval date, with SHA-256 hashes of the archived copies in the input manifest (`INPUT_MANIFEST_SHA256.csv`), matching every source Appendix E lists as copyrighted and not redistributed.

Earlier versions of the data record remain resolvable. Version 2.2.0 (https://doi.org/10.5281/zenodo.22167152, August 29, 2026) did not regenerate every institution-level figure then reported, and version 2.1.0 (https://doi.org/10.5281/zenodo.22135172, August 27, 2026) carried a permutation-test defect that returned p = .229 where the correct value is .043; both are documented in the files of version 2.4.0: the permutation-test defect in `base/revision_analyses.py` and in the `analysis/T04` outputs, and the earlier institution-level figures in the reconciliation rows of `analysis/T02/T02_conversion.csv`.

How this report was checked

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every number the report computes was regenerated from the deposited code (run on the raw files and cache it names) and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 37 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten. The gate script, its run report and the verification sheet dated September 16, 2026, are deposited with the data. The scripts and outputs of the AI agents' independent re-derivations are not deposited.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

Corrections

Corrections to this report are dated, labelled and appended, stating what was wrong, where it came from, who identified it and whether the argument survives; the argument is never silently rewritten. Version history: version 1.0, September 29, 2026; version 1.1, October 22, 2026.

Correction, version 1.1, October 22, 2026. The report described its data record inexactly in 21 places. The main one: it said that the search strings and screening record of its September 15, 2026, literature search are deposited with the data. They were not. Version 2.3.0 of the data record, the version the report cites, has no folder for that search. The uploaded archive (MD5 6c9b743f46e195ee4bfe8ceb26ed7b75) holds 209 files: a README, a note on what the public copy leaves out, a manifest and the folders T01 to T09, T13, T16, T17, base and gate. It holds none of the folders T10, T11, T12, T14, T15 and T18. Its README listed task folders T01 to T17 as present and said that each had a README of its own. None did. Its note said that nothing underlying a figure, table or quotation was left out. None of this was exact. Its gate could not run from the archive. The other places said that the deposited code was complete, that every number was regenerated from it, that the files of five federal sources listed in Appendix E were deposited, and that a manifest held the SHA-256 of every archived input. The archive holds none of those files. Its manifest lists only its own files. The hashes of the inputs sit in the task logs. It lacks four scripts that the deposited code runs or names: `T01_extract.py`, `one_registry_read.py`, `edlib.py` and `edit_T17.py`. The files existed in the author's working copy, where the gate was run. So the gate could not show the gap. The statements were the author's, in drafting. The search and its result are unchanged: PubMed, ERIC, Europe PMC and OpenAlex on September 15, 2026, eight queries in each, 2,621 unique records screened by title, 47 read at abstract level, none included. Version 2.4.0 of the data record adds the search files and the other task folders the gate reads. It adds the four scripts, the files of four of the five sources, a manifest of the archived inputs and a README in every task folder. It adds a gate that runs from the archive alone. The fifth source is the capture of 34 C.F.R. § 668.2 read on August 29, 2026. It was not kept. Appendix E now says that no capture is deposited. A screen of the contents of the archive also found the text of third-party abstracts in two search files. Version 2.4.0 removes that column. The text now says what the record holds. An AI fact-check the author directed found the missing search folder on October 1, 2026, and it was confirmed against the uploaded archive the same day. An AI agent he directed found the problem with the gate the same day, when it unzipped the archive into an empty folder and ran its gate. A read-only AI audit he directed, on October 2, 2026, found the other places. No finding changes, and the argument is unaffected.

Updated October 22, 2026: the declaration of interests and the status and AI-use statements were updated, "falling for eight years" now reads "fallen from its 2016 peak", the reference to Fee (2026b) now gives the journal's title and issue, the report-record line in Data availability now names this version, and the Methods, Appendix A and Appendix E now say which scripts make which tables and assert their figures, which sources' values are transcribed in the data record, what its input manifest holds and where the retrieval dates come from. None of this changes a finding.

Ethics

The study used publicly available aggregate data and did not constitute human subjects research; institutional review board approval was not required.

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Tables

Table 1 Degree completions in 2010, 2014 and 2024, with change from 2014 to 2024 and change from each series' peak year. Seventeen rows: the thirteen graduate-entry health professions, of which nurse practitioner is represented by the nursing family aggregate because it has no dedicated CIP code; the nursing practice (DNP) series; the undergraduate-entry registered nursing contrast; the CIP 51 health professions total; and the all-fields total

Field or aggregate	2010	2014	2024	Change 2014–2024	Peak year	Change from peak
Dietetics	3,161	4,316	3,006	−30.4%	2016	−38.3%
Athletic training	3,742	4,615	3,121	−32.4%	2018	−44.1%
Physician assistant	5,834	7,555	12,956	+71.5%	2024	peak is 2024
Speech-language pathology	3,330	4,640	7,213	+55.5%	2024	peak is 2024
Audiology	1,570	984	987	+0.3%	2010	−37.1%
Occupational therapy	5,371	6,906	10,416	+50.8%	2022	−1.2%
Physical therapy	9,354	11,004	13,422	+22.0%	2022	−2.5%
Orthotics and prosthetics	192	334	407	+21.9%	2024	peak is 2024
Genetic counseling	113	138	378	+173.9%	2024	peak is 2024
Nurse anesthesia	1,728	1,847	1,960	+6.1%	2019	−3.5%
Nurse midwifery	135	356	559	+57.0%	2022	−1.2%
Nursing practice (DNP)	1,154	4,029	9,206	+128.5%	2023	−0.1%

Field or aggregate	2010	2014	2024	Change 2014–2024	Peak year	Change from peak
Acupuncture	1,460	1,665	1,485	−10.8%	2019	−29.8%
Nursing family (nurse practitioner proxy)	194,595	255,616	311,289	+21.8%	2021	−3.5%
Registered nursing (undergraduate-entry contrast)	173,554	221,779	256,911	+15.8%	2021	−3.6%
All health professions (CIP 51)	889,595	963,682	993,362	+3.1%	2024	peak is 2024
All fields	4,428,420	4,918,344	5,459,862	+11.0%	2024	peak is 2024

Source Author's analysis of IPEDS Completions, survey years 2010–2024; 2024 file provisional. *Note* Nurse practitioner has no dedicated program code and is proxied by the nursing family total. "Peak is 2024" indicates a series whose maximum is the final observed year, so no decline from peak is defined.

Table 2 Baseline exposure and change in degree completions for the three fields with an in-window bachelor's-to-graduate entry mandate, 2014 to 2024

Measure	Physician assistant	Dietetics	Athletic training
Baseline exposure (2014 bachelor's share)	6.8%	71.7%	79.8%
Total completions, 2014	7,555	4,316	4,615
Total completions, 2024	12,956	3,006	3,121
Change in total, 2014-2024	+71.5%	−30.4%	−32.4%
Bachelor's completions, 2014	510	3,096	3,682
Bachelor's completions, 2024	311	1,663	697
Change in bachelor's, 2014-2024	−39.0%	−46.3%	−81.1%
Master's completions, 2014	6,542	491	560
Master's completions, 2024	11,930	960	2,008
Change in master's, 2014-2024	+82.4%	+95.5%	+258.6%
Post-baccalaureate and post-master's certificates, 2014	79	455	18
Post-baccalaureate and post-master's certificates, 2024	27	195	18
Sub-baccalaureate certificates, share of 2014 completions	3.3% (1.1 to 6.0)	2.4% (0.4 to 5.5)	3.7% (1.8 to 6.0)
Associate's degrees and sub-baccalaureate certificates, share of 2014 completions	5.5% (2.3 to 9.3)	6.3% (1.9 to 12.4)	7.7% (4.4 to 11.8)
Bachelor's share of 2024 completions	2.4% (1.0 to 4.0)	55.3% (48.2 to 62.6)	22.3% (16.4 to 28.3)
Contribution to change in total, bachelor's (percentage points)	−2.6 (−5.8 to 0.4)	−33.2 (−42.8 to −22.2)	−64.7 (−71.0 to −58.4)
Contribution, master's (percentage points)	+71.3 (55.3 to 91.1)	+10.9 (4.7 to 18.4)	+31.4 (24.7 to 38.6)
Contribution, doctoral (percentage points)	+8.6 (1.1 to 21.7)	+0.1 (0.0 to 0.4)	+1.7 (0.5 to 3.0)
Contribution, post-baccalaureate and post-master's certificates (percentage points)	−0.7 (−2.3 to 0.1)	−6.0 (−12.9 to −0.2)	0.0 (−0.9 to 0.7)
Contribution, associate's degrees and sub-baccalaureate certificates (percentage points)	−5.1 (−8.8 to −2.0)	−2.1 (−6.3 to 1.9)	−0.7 (−5.8 to 4.3)
Graduate-degree completions (master's and doctoral), change 2014-2024	+92% (69 to 122)	+96% (37 to 199)	+272% (173 to 452)
Graduate-degree change that would have held the total flat	+10% (4 to 17)	+363% (209 to 614)	+538% (366 to 845)

Measure	Physician assistant	Dietetics	Athletic training
Rows 11 to 22: award levels by NCES code are bachelor's 5; master's 7; doctoral 17 to 19; post-baccalaureate and post-master's certificates 6 and 8; sub-baccalaureate certificates 1, 2, 4, 20 and 21; associate's degrees 3. Contributions are percentage points of the 2014 total and sum to the change in total before rounding. The flat-holding change holds every other award level at its 2024 count. Brackets are 95 percent intervals from 100,000 resamples of institutions within each field; counts are exact.			

Source Author's analysis of IPEDS Completions, survey years 2014 and 2024, first majors, all award levels; 2024 file provisional. *Note* Baseline exposure is the share of 2014 completions at an award level that no longer qualifies for entry after the rule; for these three mandates, the bachelor's share. Exposure is defined only for fields subject to such a mandate. 2024 file provisional.

Table 3 Accredited dietetics education programs: graduates, enrollment and program counts, selected years 2000 to 2025, with change from 2014 and from 2019. Every row states whether it counts graduates, enrolled students or programs.

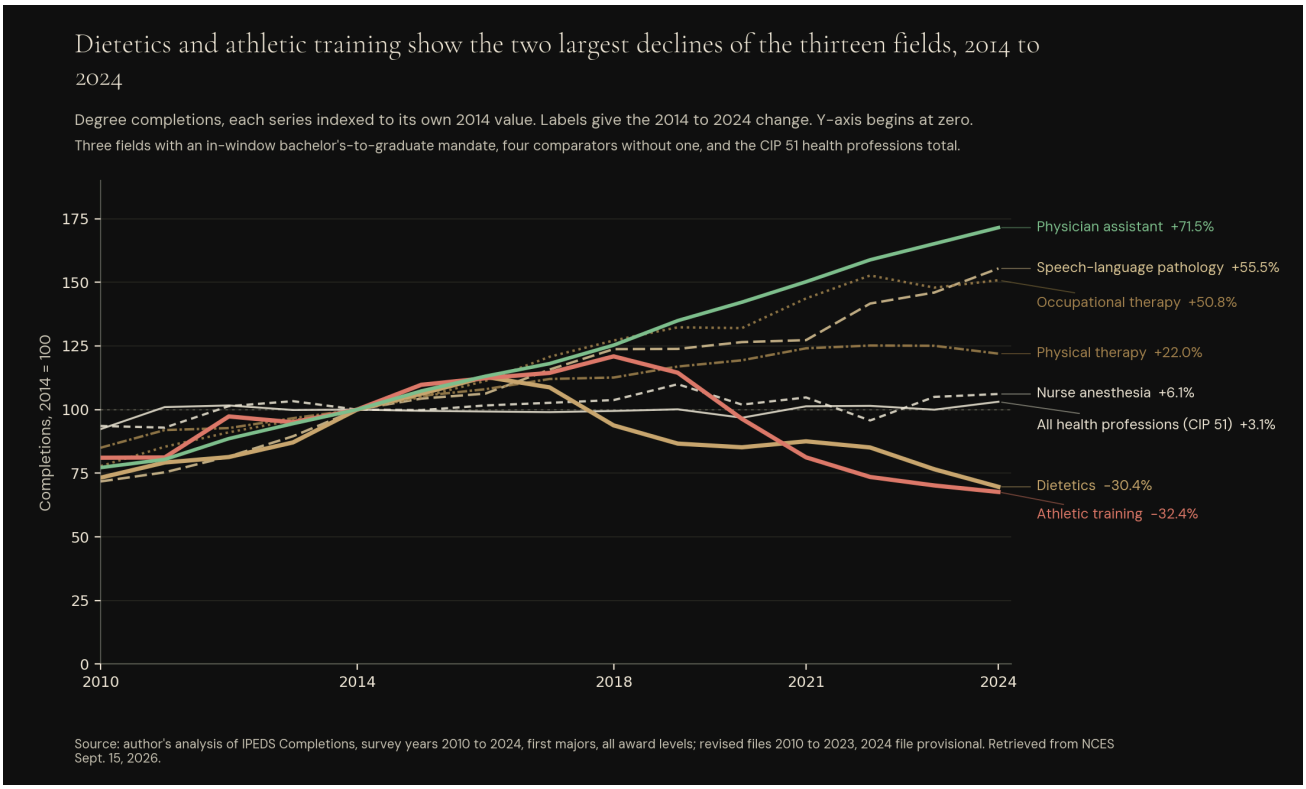
Series	2000	2010	2014	2015	2019	2020	2021	2022	2023	2024	2025	Change 2014–2025	Change 2019–2025	ACEND table (page 1)
Graduates: didactic programs	3,813	5,792	6,578	6,889	5,574	5,112	4,988	4,703	4,248	3,638	3,480	−47.1%	−37.6%	graduates table
Graduates: coordinated programs	602	714	913	946	1,074	882	893	787	762	584	551	−39.6%	−48.7%	graduates table
Graduates: Future Education Model graduate programs	NR	NR	NR	NR	NR	77	229	374	527	738	1,037	NR	NR	graduates table
Graduates: dietetic internships	2,181	2,546	3,075	3,180	3,796	3,741	3,443	3,472	3,209	2,097	1,945	−36.7%	−48.8%	graduates table
Graduates: didactic-stage output (didactic + coordinated + Future Education Model)	4,415	6,506	7,491	7,835	6,648	6,071	6,110	5,864	5,537	4,960	5,068	−32.3%	−23.8%	author's sum, graduates table
Graduates: supervised practice (internship + coordinated + Future Education Model)	2,783	3,260	3,988	4,126	4,870	4,700	4,565	4,633	4,498	3,419	3,533	−11.4%	−27.5%	author's sum, graduates table
Graduates: counted in both series above (coordinated + Future Education Model)	602	714	913	946	1,074	959	1,122	1,161	1,289	1,322	1,588	+73.9%	+47.9%	author's sum, graduates table
Enrollment: didactic programs	9,798	16,051	17,719	16,878	11,924	11,422	10,381	8,976	8,297	7,732	7,748	−56.3%	−35.0%	enrollment table

Series	2000	2010	2014	2015	2019	2020	2021	2022	2023	2024	2025	Change 2014–2025	Change 2019–2025	ACEND table (page 1)
Enrollment: supervised practice (internship + coordinated + Future Education Model)	3,576	4,406	5,216	5,419	6,354	6,624	6,701	6,777	6,120	6,166	6,359	+21.9%	+0.1%	author's sum, enrollment table
Enrollment: all program types (total)	15,247	22,203	24,423	23,594	18,925	18,564	17,589	16,128	14,754	14,170	14,336	−41.3%	−24.2%	enrollment table
Programs: didactic programs (count)	234	226	224	223	213	211	214	213	210	206	204	−8.9%	−4.2%	programs table
Enrollment per didactic program (ratio)	41.9	71.0	79.1	75.7	56.0	54.1	48.5	42.1	39.5	37.5	38.0	−52.0%	−32.2%	author's ratio, enrollment and programs tables
Enrollment-to-graduate ratio: didactic programs	2.57	2.77	2.69	2.45	2.14	2.23	2.08	1.91	1.95	2.13	2.23	−17.3%	+4.1%	author's ratio
Enrollment-to-graduate ratio: supervised practice	1.28	1.35	1.31	1.31	1.30	1.41	1.47	1.46	1.36	1.80	1.80	+37.6%	+38.0%	author's ratio

Source Author's analysis of Accreditation Council for Education in Nutrition and Dietetics, Dietetics Education Program Statistics 2000–2025 (one-page PDF of three tables: programs, enrolled students/interns, graduates, each by program type; file created March 27, 2026), retrieved August 3, 2026; SHA-256 of the archived file 51e6406be5a092ced15578ac5adb917d9925430 5a0bc53d9e0a33293ec49b496. *Note* NR, not reported: Future Education Model graduate programs first appear in the tables in 2020, and the Total row of each table equals the sum of the other program types with that row blank before 2020. n/a, change not defined from a zero base. Enrollment is a count of enrolled students (a stock), not of entrants; graduates are an annual flow. Enrollment-to-graduate ratios equal time in program only when intake is steady. Coordinated and Future Education Model graduates are counted in both didactic-stage output and supervised-practice graduates. Every value was extracted twice (poppler and MuPDF, agreeing on all 468 cells) and checked against each table's Total row and printed percent-change columns. The full annual series, 2000 to 2025, is in the data deposit (T07_acend_series.csv, T07_derived_annual.csv).

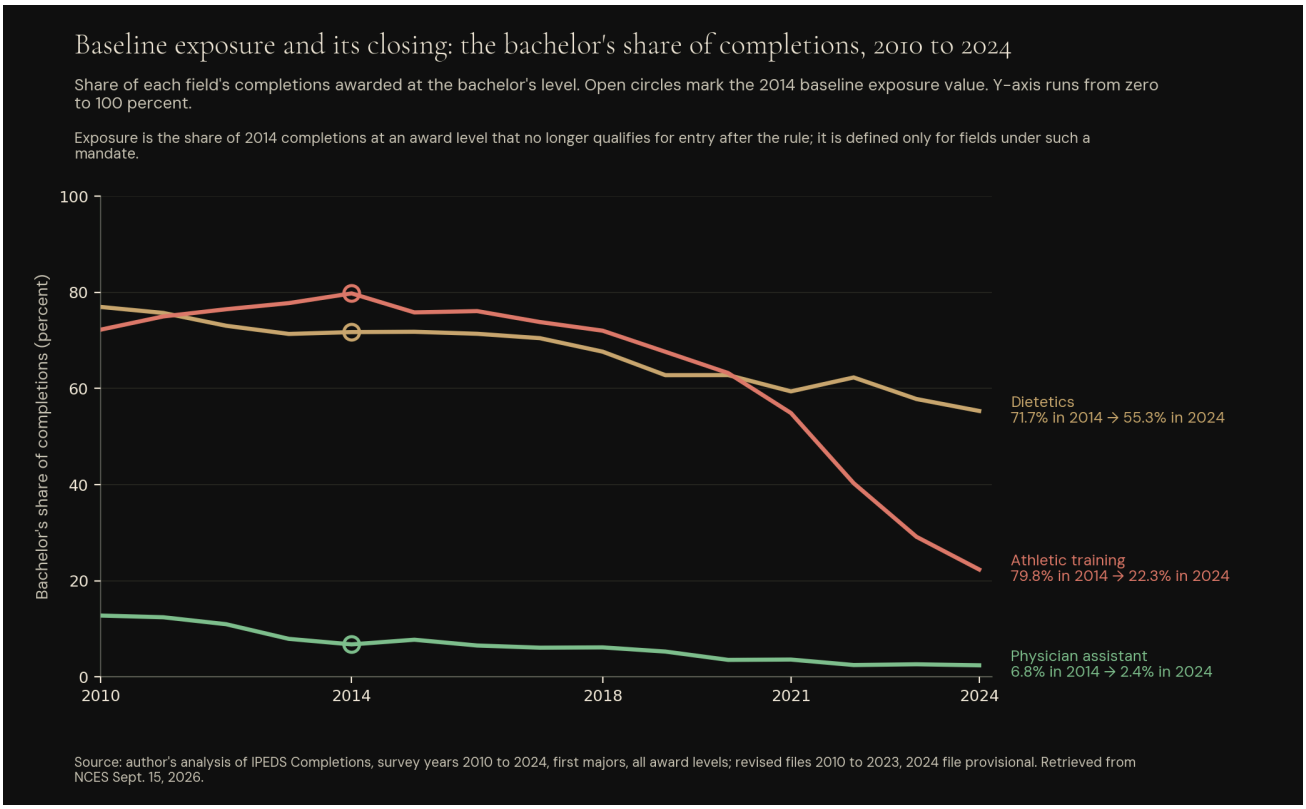
Figure captions

Fig. 1 Degree completions indexed to each series' own 2014 value, 2010 to 2024, for the three fields with an in-window bachelor's-to-graduate mandate (dietetics, athletic training, physician assistant), four comparators without one (speech-language pathology, occupational therapy, physical therapy, nurse anesthesia), and the CIP 51 health professions total. End labels give the 2014 to 2024 change and are separated vertically where they would otherwise overlap. Y-axis begins at zero. *Source* Author's analysis of IPEDS Completions, 2010 to 2024; 2024 file provisional



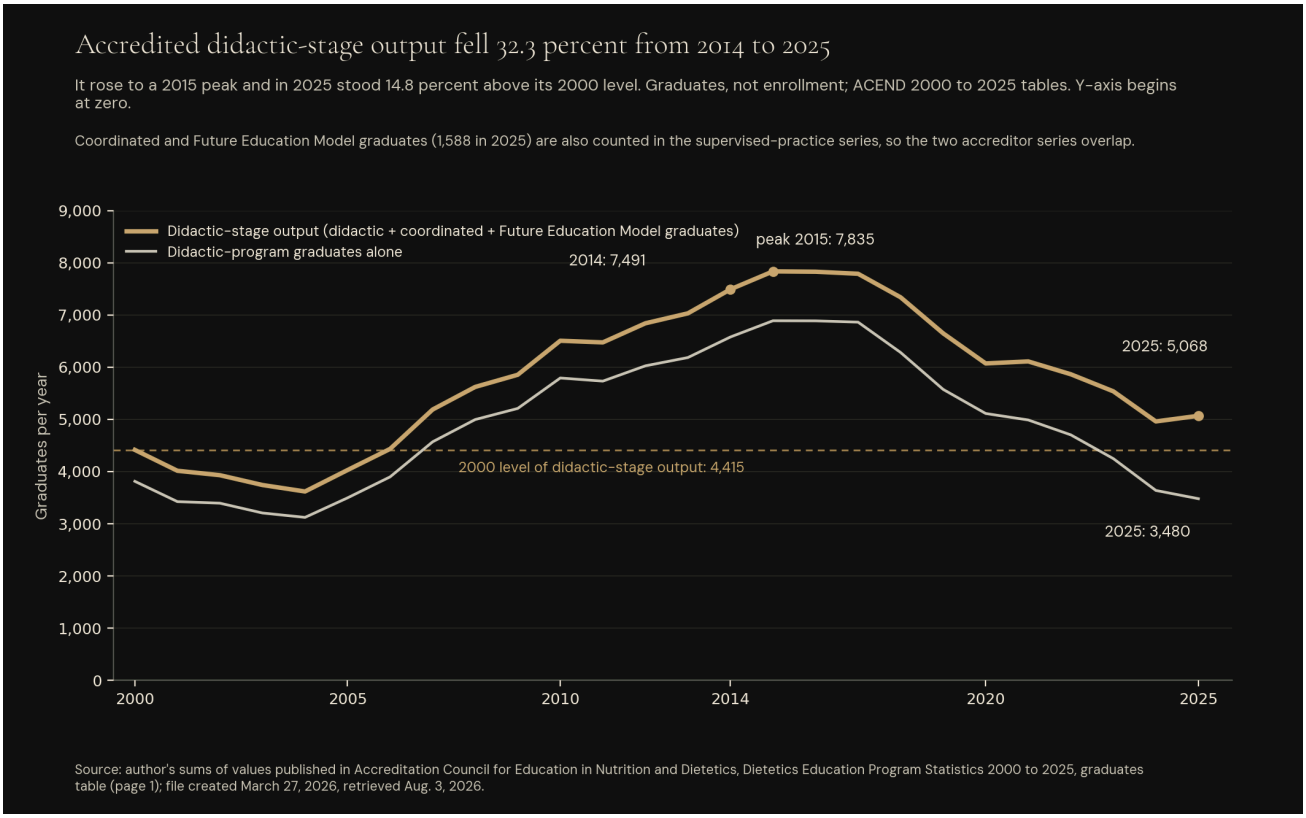
Indexed to 2014, dietetics ends at 69.6 and athletic training at 67.6 while physician assistant studies reach 171.5 and the CIP 51 health professions total is flat at 103.1; the two mandate fields with high baseline exposure are the only lines well below 100 in 2024.

Fig. 2 Baseline exposure and its closing: the share of completions awarded at the bachelor's level, 2010 to 2024, in the three fields with an in-window bachelor's-to-graduate mandate. Open circles mark the 2014 baseline exposure value for each field. Y-axis runs from zero to 100 percent. *Source* Author's analysis of IPEDS Completions, 2010 to 2024



Athletic training starts at 79.8 percent of completions at the bachelor's level in 2014 and falls to 22.3 percent by 2024; dietetics starts at 71.7 percent and is still 55.3 percent in 2024; physician assistant studies start at 6.8 percent and end at 2.4 percent.

Fig. 3 Didactic-stage output of accredited dietetics programs, 2000 to 2025: annual graduates of didactic programs, coordinated programs and Future Education Model graduate programs combined, with didactic-program graduates alone. The dashed line marks the 2000 level of didactic-stage output (4,415). Didactic-stage output fell 32.3 percent from 2014 (7,491) to 2025 (5,068) and in 2025 stood 14.8 percent above its 2000 level. Graduates, not enrollment. Coordinated and Future Education Model graduates, 1,588 in 2025, are also counted in the supervised-practice series, so the two accreditor series overlap. Y-axis begins at zero. *Source* Author's sums of values published in Accreditation Council for Education in Nutrition and Dietetics, Dietetics Education Program Statistics 2000–2025, graduates table; retrieved August 3, 2026



Didactic-stage output rose from 4,415 graduates in 2000 to a peak of 7,835 in 2015, then fell to 5,068 in 2025, 32.3 percent below 2014 and 14.8 percent above 2000; didactic-program graduates alone fell to 3,480, below their 2000 level of 3,813.

Appendices

Appendix A. Robustness of the ordering and the threshold

Every cell of Tables A1 to A9 is generated by the deposited script `T01_robustness.py`, and Tables A10 and A11 (the wage test) by `T04_wage.py`; the full grid for every field, base year, endpoint and award basis, with intervals, is deposited as `T01_grid.csv`. 95 percent intervals on each percentage change are computed on the ratio of the two counts. The variance of each year's log count is the larger of its Poisson variance and the field's own year-level variance, estimated from the 2010 to 2024 series on the same award basis as the variance of each year's log count about the mean of its two neighboring years, divided by 1.5; a three-year mean takes one third of that variance or the Poisson variance of the three-year sum, whichever is larger. Intervals describe year-to-year variation in a process, not sampling error, since IPEDS is a census.

Table A1 Percentage change in completions from 2014 to each endpoint, 2020 to 2024, all award levels, with 95 percent intervals

Field or aggregate	2020	2021	2022	2023 (revised)	2024 (provisional)
Dietetics	−14.8 (−20.8 to −8.3)	−12.5 (−18.7 to −5.8)	−14.9 (−20.9 to −8.4)	−23.4 (−28.9 to −17.6)	−30.4 (−35.3 to −25.1)
Athletic training	−3.6 (−13.6 to +7.5)	−18.8 (−27.2 to −9.4)	−26.5 (−34.1 to −18.0)	−29.8 (−37.1 to −21.7)	−32.4 (−39.4 to −24.5)
Physician assistant	+42.2 (+38.1 to +46.4)	+50.2 (+45.9 to +54.7)	+58.8 (+54.3 to +63.5)	+65.2 (+60.5 to +69.9)	+71.5 (+66.7 to +76.4)
Speech-language pathology	+26.5 (+19.4 to +34.0)	+27.3 (+20.2 to +34.8)	+41.7 (+33.7 to +50.1)	+46.0 (+37.8 to +54.6)	+55.5 (+46.8 to +64.7)
Audiology	+4.3 (−9.3 to +19.9)	+4.6 (−9.0 to +20.2)	−4.8 (−17.2 to +9.5)	+2.2 (−11.1 to +17.5)	+0.3 (−12.7 to +15.3)
Occupational therapy	+32.0 (+25.8 to +38.5)	+43.7 (+36.9 to +50.8)	+52.7 (+45.5 to +60.2)	+47.9 (+41.0 to +55.2)	+50.8 (+43.7 to +58.3)
Physical therapy	+19.4 (+15.6 to +23.3)	+24.1 (+20.1 to +28.2)	+25.2 (+21.2 to +29.3)	+25.1 (+21.1 to +29.2)	+22.0 (+18.1 to +26.0)
Orthotics and prosthetics	+5.7 (−14.4 to +30.5)	−0.3 (−19.3 to +23.1)	−1.2 (−20.0 to +22.0)	−3.0 (−21.4 to +19.8)	+21.9 (−1.3 to +50.5)
Genetic counseling	+66.7 (+35.0 to +105.8)	+108.7 (+70.4 to +155.6)	+116.7 (+77.1 to +165.1)	+161.6 (+115.0 to +218.3)	+173.9 (+125.4 to +232.9)
Nurse anesthesia	+1.9 (−7.8 to +12.7)	+4.8 (−5.2 to +15.8)	−4.3 (−13.4 to +5.8)	+5.0 (−5.0 to +16.1)	+6.1 (−4.0 to +17.3)
Nurse midwifery	+43.0 (+23.9 to +65.1)	+43.0 (+23.9 to +65.1)	+59.0 (+37.7 to +83.5)	+51.1 (+30.9 to +74.5)	+57.0 (+36.0 to +81.3)
Acupuncture	+4.6 (−11.1 to +23.1)	+15.8 (−1.6 to +36.2)	+15.1 (−2.1 to +35.4)	+10.0 (−6.5 to +29.3)	−10.8 (−24.2 to +4.9)
Nurse practitioner (nursing family proxy)	+22.5 (+19.7 to +25.5)	+26.2 (+23.2 to +29.2)	+24.9 (+22.0 to +27.9)	+20.6 (+17.8 to +23.4)	+21.8 (+18.9 to +24.7)

Field or aggregate	2020	2021	2022	2023 (revised)	2024 (provisional)
Nursing practice (DNP)	+87.7 (+52.8 to +130.7)	+98.2 (+61.3 to +143.6)	+120.1 (+79.1 to +170.5)	+128.6 (+86.1 to +181.0)	+128.5 (+85.9 to +180.8)
Registered nursing (undergraduate-entry contrast)	+17.0 (+14.2 to +19.8)	+20.2 (+17.3 to +23.2)	+18.5 (+15.7 to +21.5)	+14.4 (+11.7 to +17.2)	+15.8 (+13.1 to +18.7)
All health professions (CIP 51)	−3.2 (−7.4 to +1.2)	+1.3 (−3.1 to +5.9)	+1.5 (−2.9 to +6.1)	0.0 (−4.4 to +4.5)	+3.1 (−1.4 to +7.7)
All fields	+5.9 (+3.7 to +8.2)	+8.1 (+5.8 to +10.4)	+7.9 (+5.7 to +10.3)	+7.7 (+5.5 to +10.1)	+11.0 (+8.7 to +13.4)

Units Percent change from the 2014 count; interval in parentheses. *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026). *Note* All fields is the files' grand-total row, one count per award.

Table A2 Percentage change in completions to 2024 (provisional) from each base year, 2010 to 2018, all award levels, and the number of base years on which the field is 30 percent or more below its base

Field or aggregate	2010	2011	2012	2013	2014	2015	2016	2017	2018	Bases 30 percent or more below
Dietetics	−4.9	−12.1	−14.4	−20.0	−30.4	−34.4	−38.3	−35.9	−25.7	4
Athletic training	−16.6	−16.7	−30.5	−28.8	−32.4	−38.4	−39.8	−40.9	−44.1	6
Physician assistant	+122.1	+113.3	+93.6	+81.5	+71.5	+59.8	+51.6	+45.3	+36.9	0
Speech-language pathology	+116.6	+106.3	+90.6	+73.7	+55.5	+49.0	+46.3	+34.3	+25.6	0
Audiology	−37.1	−5.6	−2.9	+3.7	+0.3	−1.0	−3.7	−7.9	−7.0	1
Occupational therapy	+93.9	+76.6	+65.6	+57.4	+50.8	+43.8	+35.6	+24.9	+18.6	0
Physical therapy	+43.5	+32.7	+31.5	+26.2	+22.0	+15.8	+12.9	+8.9	+8.3	0
Orthotics and prosthetics	+112.0	+66.1	+45.4	+7.4	+21.9	+25.6	+15.6	+10.3	+2.3	0
Genetic counseling	+234.5	+209.8	+202.4	+190.8	+173.9	+170.0	+142.3	+157.1	+119.8	0
Nurse anesthesia	+13.4	+14.2	+4.7	+2.7	+6.1	+6.3	+4.4	+3.4	+2.3	0
Nurse midwifery	+314.1	+189.6	+131.0	+72.5	+57.0	+71.5	+51.1	+28.8	+17.7	0
Acupuncture	+1.7	+2.3	−2.9	−7.3	−10.8	−17.1	−11.6	−17.1	−20.9	0
Nurse practitioner (nursing family proxy)	+60.0	+49.3	+37.2	+29.0	+21.8	+16.1	+13.3	+9.9	+6.0	0
Nursing practice (DNP)	+697.7	+392.6	+207.8	+210.6	+128.5	+107.4	+108.8	+79.3	+64.9	0
Registered nursing (undergraduate-entry contrast)	+48.0	+38.9	+29.0	+21.5	+15.8	+11.1	+10.1	+8.0	+5.2	0
All health professions (CIP 51)	+11.7	+2.1	+1.4	+3.2	+3.1	+3.6	+3.9	+4.1	+3.6	0
All fields	+23.3	+15.3	+12.1	+11.9	+11.0	+10.2	+9.6	+8.4	+6.5	0

Units Percent change from the base-year count. *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026). *Note* Counts of base years describe point estimates. In Table A3 the interval includes a 30 percent fall on 3 bases for dietetics (2014, 2015, 2018) and 3 for athletic training (2012, 2013, 2014), and lies wholly beyond it on 2 (2016, 2017) and 4 (2015, 2016, 2017, 2018).

Table A3 95 percent intervals for the changes in Table A2

Field or aggregate	2010	2011	2012	2013	2014	2015	2016	2017	2018
Dietetics	−11.6 to +2.3	−18.3 to −5.4	−20.4 to −7.9	−25.7 to −13.9	−35.3 to −25.1	−39.1 to −29.5	−42.7 to −33.6	−40.5 to −31.1	−31.0 to −20.1
Athletic training	−25.2 to −6.9	−25.3 to −7.1	−37.7 to −22.5	−36.2 to −20.6	−39.4 to −24.5	−44.8 to −31.2	−46.0 to −32.8	−47.0 to −34.1	−49.9 to −37.6
Physician assistant	+115.3 to +129.1	+106.8 to +119.9	+87.9 to +99.4	+76.3 to +86.8	+66.7 to +76.4	+55.4 to +64.3	+47.5 to +55.9	+41.4 to +49.2	+33.3 to +40.5
Speech-language pathology	+104.5 to +129.4	+94.8 to +118.6	+79.9 to +101.9	+64.0 to +84.0	+46.8 to +64.7	+40.7 to +57.9	+38.1 to +55.0	+26.8 to +42.3	+18.6 to +33.1
Audiology	−45.3 to −27.7	−17.8 to +8.6	−15.6 to +11.6	−9.8 to +19.2	−12.7 to +15.3	−13.9 to +13.8	−16.2 to +10.7	−19.9 to +5.8	−19.1 to +6.9
Occupational therapy	+84.8 to +103.5	+68.3 to +85.3	+57.8 to +73.8	+50.0 to +65.2	+43.7 to +58.3	+37.1 to +50.9	+29.2 to +42.2	+19.1 to +31.1	+13.1 to +24.5
Physical therapy	+38.9 to +48.2	+28.4 to +37.0	+27.3 to +35.9	+22.2 to +30.4	+18.1 to +26.0	+12.1 to +19.6	+9.3 to +16.7	+5.4 to +12.5	+4.9 to +11.9
Orthotics and prosthetics	+71.7 to +161.7	+34.5 to +105.1	+17.7 to +79.5	−13.0 to +32.6	−1.3 to +50.5	+1.7 to +55.1	−6.4 to +42.8	−10.7 to +36.2	−17.2 to +26.3
Genetic counseling	+171.1 to +312.7	+152.6 to +280.0	+147.0 to +270.2	+138.2 to +254.9	+125.4 to +232.9	+122.4 to +227.8	+101.1 to +192.0	+112.5 to +211.1	+83.5 to +163.2
Nurse anesthesia	+2.6 to +25.4	+3.3 to +26.3	−5.3 to +15.7	−7.1 to +13.6	−4.0 to +17.3	−3.8 to +17.6	−5.5 to +15.4	−6.5 to +14.3	−7.5 to +13.1
Nurse midwifery	+240.5 to +403.6	+143.8 to +244.1	+96.8 to +171.2	+48.9 to +99.9	+36.0 to +81.3	+48.0 to +98.6	+31.1 to +74.2	+12.0 to +48.2	+2.3 to +35.4
Acupuncture	−13.5 to +19.6	−13.0 to +20.4	−17.5 to +14.2	−21.2 to +9.0	−24.2 to +4.9	−29.5 to −2.5	−24.8 to +4.0	−29.5 to −2.5	−32.8 to −7.0
Nurse practitioner (nursing family proxy)	+56.2 to +63.8	+45.8 to +52.9	+34.0 to +40.5	+26.0 to +32.1	+18.9 to +24.7	+13.4 to +18.9	+10.6 to +16.0	+7.3 to +12.5	+3.6 to +8.6
Nursing practice (DNP)	+549.1 to +880.4	+300.8 to +505.3	+150.5 to +278.3	+152.7 to +281.7	+85.9 to +180.8	+68.8 to +154.9	+69.9 to +156.5	+45.9 to +120.3	+34.2 to +102.7
Registered nursing (undergraduate-entry contrast)	+44.5 to +51.7	+35.6 to +42.4	+25.9 to +32.2	+18.6 to +24.5	+13.1 to +18.7	+8.5 to +13.9	+7.5 to +12.8	+5.4 to +10.7	+2.7 to +7.8
All health professions (CIP 51)	+6.8 to +16.7	−2.3 to +6.7	−3.0 to +6.0	−1.2 to +7.9	−1.4 to +7.7	−0.9 to +8.3	−0.6 to +8.6	−0.4 to +8.8	−0.8 to +8.3
All fields	+20.7 to +25.9	+12.9 to +17.8	+9.7 to +14.5	+9.6 to +14.3	+8.7 to +13.4	+7.9 to +12.6	+7.3 to +12.0	+6.1 to +10.7	+4.3 to +8.8

Units Percent change; lower to upper bound. *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026).

Table A4 Whether dietetics and athletic training are the two largest declines of the thirteen fields, for every pair of base year and endpoint, all award levels

Base year	2020	2021	2022	2023 (revised)	2023 (provisional)	2024 (provisional)
2010	No: audiology and nurse anesthesia in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest
2011	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	Yes, intervals overlap (75%)
2012	No: nurse anesthesia in the two largest	No: audiology in the two largest	No: audiology in the two largest	Yes, intervals overlap (68%)	Yes, intervals overlap (67%)	Yes, intervals overlap (86%)
2013	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	Yes, intervals overlap (94%)
2014	Yes, intervals overlap (48%)	Yes, intervals overlap (85%)	Yes, intervals overlap (81%)	Yes, intervals overlap (98%)	Yes, intervals overlap (98%)	Yes, intervals clear (100%)
2015	Yes, intervals overlap (78%)	Yes, intervals overlap (97%)	Yes, intervals overlap (96%)	Yes, intervals clear (100%)	Yes, intervals clear (100%)	Yes, intervals overlap (99%)

Base year	2020	2021	2022	2023 (revised)	2023 (provisional)	2024 (provisional)
2016	Yes, intervals overlap (84%)	Yes, intervals overlap (96%)	Yes, intervals overlap (96%)	Yes, intervals clear (100%)	Yes, intervals clear (100%)	Yes, intervals clear (100%)
2017	Yes, intervals overlap (74%)	Yes, intervals overlap (83%)	Yes, intervals overlap (81%)	Yes, intervals overlap (97%)	Yes, intervals overlap (98%)	Yes, intervals clear (100%)
2018	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	Yes, intervals overlap (75%)

Units "Yes" means the two fields have the two lowest percentage changes of the thirteen. "Intervals clear" means both fields' intervals lie wholly below the interval of the next-largest decline; "intervals overlap" means at least one does not. The percentage is the share of simulated replicates, drawn under the interval model above, in which the two remain the two lowest. "One rose" marks a cell where one of the two fields grew. Across the 45 pairs of a 2010 to 2018 base and a 2020 to 2024 endpoint, the two fields are the two largest declines in 25. *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026).

Table A5 Whether dietetics and athletic training are the two largest declines of the thirteen fields, for every pair of base year and endpoint, degree levels only (associate, bachelor's, master's and doctoral)

Base year	2020	2021	2022	2023 (revised)	2023 (provisional)	2024 (provisional)
2010	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest
2011	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	Yes, intervals overlap (53%)	Yes, intervals overlap (53%)	Yes, intervals overlap (73%)
2012	No: audiology in the two largest	No: audiology in the two largest	No: audiology in the two largest	Yes, intervals overlap (71%)	Yes, intervals overlap (71%)	Yes, intervals overlap (83%)
2013	No: nurse anesthesia in the two largest	Yes, intervals overlap (79%)	No: nurse anesthesia in the two largest	Yes, intervals overlap (97%)	Yes, intervals overlap (97%)	Yes, intervals overlap (93%)
2014	Yes, intervals overlap (59%)	Yes, intervals clear (99%)	Yes, intervals overlap (96%)	Yes, intervals clear (100%)	Yes, intervals clear (100%)	Yes, intervals overlap (99%)
2015	Yes, intervals overlap (84%)	Yes, intervals clear (99%)	Yes, intervals overlap (98%)	Yes, intervals clear (100%)	Yes, intervals clear (100%)	Yes, intervals overlap (98%)
2016	Yes, intervals overlap (85%)	Yes, intervals overlap (95%)	Yes, intervals overlap (96%)	Yes, intervals clear (100%)	Yes, intervals clear (100%)	Yes, intervals clear (99%)
2017	Yes, intervals overlap (76%)	Yes, intervals overlap (86%)	Yes, intervals overlap (84%)	Yes, intervals clear (98%)	Yes, intervals clear (98%)	Yes, intervals overlap (95%)
2018	Yes, intervals overlap (38%)	No: orthotics and prosthetics in the two largest	No: orthotics and prosthetics in the two largest	Yes, intervals overlap (56%)	Yes, intervals overlap (57%)	Yes, intervals overlap (34%)

Units "Yes" means the two fields have the two lowest percentage changes of the thirteen. "Intervals clear" means both fields' intervals lie wholly below the interval of the next-largest decline; "intervals overlap" means at least one does not. The percentage is the share of simulated replicates, drawn under the interval model above, in which the two remain the two lowest. "One rose" marks a cell where one of the two fields grew. Across the 45 pairs of a 2010 to 2018 base and a 2020 to 2024 endpoint, the two fields are the two largest declines in 30. *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026).

Table A6 Changes over alternative windows, all award levels, with 95 percent intervals

Field or aggregate	2011 to 2013 mean to 2024	2012 to 2014 mean to 2022 to 2024 mean	2019 to 2024	Peak year to 2024 (peak year)
Dietetics	−15.6 (−20.5 to −10.4)	−13.8 (−17.4 to −10.1)	−19.6 (−25.3 to −13.5)	−38.3 (−42.7 to −33.6; 2016)
Athletic training	−25.8 (−32.2 to −18.9)	−27.7 (−32.1 to −23.0)	−40.9 (−47.1 to −34.1)	−44.1 (−49.9 to −37.6; 2018)
Physician assistant	+95.3 (+91.0 to +99.7)	+75.0 (+72.1 to +78.0)	+27.1 (+23.8 to +30.4)	peak is 2024
Speech-language pathology	+89.3 (+80.6 to +98.4)	+63.5 (+58.1 to +69.0)	+25.5 (+18.5 to +33.0)	peak is 2024
Audiology	−1.8 (−12.3 to +10.1)	−0.8 (−8.4 to +7.5)	−2.7 (−15.3 to +11.9)	−37.1 (−45.3 to −27.7; 2010)
Occupational therapy	+66.2 (+59.8 to +72.9)	+57.4 (+53.1 to +61.8)	+14.0 (+8.6 to +19.6)	−1.2 (−5.9 to +3.6; 2022)
Physical therapy	+30.1 (+26.7 to +33.6)	+28.6 (+26.3 to +31.1)	+4.3 (+1.0 to +7.8)	−2.5 (−5.7 to +0.7; 2022)
Orthotics and prosthetics	+35.1 (+13.7 to +60.4)	+6.8 (−5.4 to +20.7)	+22.6 (−0.7 to +51.4)	peak is 2024

Field or aggregate	2011 to 2013 mean to 2024	2012 to 2014 mean to 2022 to 2024 mean	2019 to 2024	Peak year to 2024 (peak year)
Genetic counseling	+200.8 (+160.8 to +246.9)	+164.1 (+135.2 to +196.6)	+95.9 (+64.7 to +132.9)	peak is 2024
Nurse anesthesia	+7.0 (−1.4 to +16.1)	+0.7 (−5.0 to +6.7)	−3.5 (−12.7 to +6.7)	−3.5 (−12.7 to +6.7; 2019)
Nurse midwifery	+120.9 (+95.6 to +149.6)	+80.4 (+65.5 to +96.6)	+17.7 (+2.3 to +35.4)	−1.2 (−14.2 to +13.6; 2022)
Acupuncture	−2.8 (−14.9 to +11.0)	+9.1 (−0.7 to +19.8)	−29.8 (−40.3 to −17.4)	−29.8 (−40.3 to −17.4; 2019)
Nurse practitioner (nursing family proxy)	+38.0 (+35.4 to +40.7)	+29.7 (+28.0 to +31.5)	+2.0 (−0.4 to +4.5)	−3.5 (−5.7 to −1.2; 2021)
Nursing practice (DNP)	+253.0 (+198.3 to +317.7)	+173.3 (+142.6 to +207.8)	+47.5 (+20.0 to +81.2)	−0.1 (−18.7 to +22.8; 2023)
Registered nursing (undergraduate-entry contrast)	+29.4 (+26.9 to +32.0)	+22.3 (+20.6 to +24.1)	+2.3 (−0.2 to +4.8)	−3.6 (−5.9 to −1.2; 2021)
All health professions (CIP 51)	+2.2 (−1.4 to +6.0)	+1.0 (−1.5 to +3.6)	+3.0 (−1.5 to +7.6)	peak is 2024
All fields	+13.1 (+11.1 to +15.1)	+9.5 (+8.2 to +10.9)	+4.7 (+2.5 to +6.9)	peak is 2024

Units Percent change; interval in parentheses. Three-year means average the three annual counts. *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026).

Table A7 Change from 2014 on all award levels and on degree levels only, to the revised 2023 file and the provisional 2024 file, with 95 percent intervals

Field or aggregate	All levels 2014	All levels 2024	All levels, 2014 to 2023 (revised)	All levels, 2014 to 2024	Degrees 2014	Degrees 2024	Degrees, 2014 to 2023 (revised)	Degrees, 2014 to 2024
Dietetics	4,316	3,006	−23.4 (−28.9 to −17.6)	−30.4 (−35.3 to −25.1)	3,758	2,715	−23.7 (−29.7 to −17.2)	−27.8 (−33.4 to −21.6)
Athletic training	4,615	3,121	−29.8 (−37.1 to −21.7)	−32.4 (−39.4 to −24.5)	4,427	2,898	−31.4 (−37.7 to −24.5)	−34.5 (−40.5 to −27.9)
Physician assistant	7,555	12,956	+65.2 (+60.5 to +69.9)	+71.5 (+66.7 to +76.4)	7,227	12,899	+71.3 (+66.4 to +76.3)	+78.5 (+73.4 to +83.7)
Speech-language pathology	4,640	7,213	+46.0 (+37.8 to +54.6)	+55.5 (+46.8 to +64.7)	4,547	7,034	+45.0 (+37.3 to +53.1)	+54.7 (+46.5 to +63.4)
Audiology	984	987	+2.2 (−11.1 to +17.5)	+0.3 (−12.7 to +15.3)	983	976	0.0 (−12.6 to +14.4)	−0.7 (−13.2 to +13.6)
Occupational therapy	6,906	10,416	+47.9 (+41.0 to +55.2)	+50.8 (+43.7 to +58.3)	6,881	10,383	+47.9 (+40.9 to +55.3)	+50.9 (+43.7 to +58.4)
Physical therapy	11,004	13,422	+25.1 (+21.1 to +29.2)	+22.0 (+18.1 to +26.0)	10,910	13,356	+25.5 (+21.7 to +29.4)	+22.4 (+18.7 to +26.3)
Orthotics and prosthetics	334	407	−3.0 (−21.4 to +19.8)	+21.9 (−1.3 to +50.5)	189	277	+57.7 (+18.6 to +109.7)	+46.6 (+10.2 to +94.9)
Genetic counseling	138	378	+161.6 (+115.0 to +218.3)	+173.9 (+125.4 to +232.9)	138	375	+160.9 (+114.4 to +217.4)	+171.7 (+123.6 to +230.3)
Nurse anesthesia	1,847	1,960	+5.0 (−5.0 to +16.1)	+6.1 (−4.0 to +17.3)	1,802	1,942	+6.8 (−3.4 to +18.1)	+7.8 (−2.5 to +19.1)
Nurse midwifery	356	559	+51.1 (+30.9 to +74.5)	+57.0 (+36.0 to +81.3)	339	525	+47.2 (+25.9 to +72.1)	+54.9 (+32.5 to +81.1)
Acupuncture	1,665	1,485	+10.0 (−6.5 to +29.3)	−10.8 (−24.2 to +4.9)	1,616	1,482	+12.1 (−4.9 to +32.1)	−8.3 (−22.2 to +8.1)
Nurse practitioner (nursing family proxy)	255,616	311,289	+20.6 (+17.8 to +23.4)	+21.8 (+18.9 to +24.7)	247,969	301,139	+20.7 (+18.1 to +23.4)	+21.4 (+18.8 to +24.2)
Nursing practice (DNP)	4,029	9,206	+128.6 (+86.1 to +181.0)	+128.5 (+85.9 to +180.8)	3,165	8,866	+181.7 (+148.7 to +219.0)	+180.1 (+147.3 to +217.3)
Registered nursing (undergraduate-entry contrast)	221,779	256,911	+14.4 (+11.7 to +17.2)	+15.8 (+13.1 to +18.7)	216,925	252,350	+15.1 (+12.3 to +17.9)	+16.3 (+13.5 to +19.2)
All health professions (CIP 51)	963,682	993,362	0.0 (−4.4 to +4.5)	+3.1 (−1.4 to +7.7)	584,385	680,533	+15.3 (+12.0 to +18.7)	+16.5 (+13.1 to +19.9)

Field or aggregate	All levels 2014	All levels 2024	All levels, 2014 to 2023 (revised)	All levels, 2014 to 2024	Degrees 2014	Degrees 2024	Degrees, 2014 to 2023 (revised)	Degrees, 2014 to 2024
All fields	4,918,344	5,459,862	+7.7 (+5.5 to +10.1)	+11.0 (+8.7 to +13.4)	3,853,616	4,138,100	+6.6 (+4.8 to +8.5)	+7.4 (+5.6 to +9.2)

Units Completions and percent change. *Basis* Degree levels are associate's, bachelor's, master's and the three doctoral award levels; all levels add sub-baccalaureate certificates and post-baccalaureate and post-master's certificates. *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026).

Table A8 Provisional-to-revised revisions: the 2023 file pair, and the range of revisions across the 2010 to 2022 file pairs, all award levels

Field or aggregate	2023 provisional	2023 revised	Revision (completions)	Revision (percent)	2010 to 2022 pairs: largest revision in completions (year)	2010 to 2022 pairs: median absolute revision (percent)
Dietetics	3,304	3,304	0	0.0	+37 (2010)	0.02
Athletic training	3,239	3,239	0	0.0	+13 (2010)	0.00
Physician assistant	12,477	12,478	+1	0.0	+25 (2014)	0.00
Speech-language pathology	6,770	6,774	+4	+0.1	+48 (2010)	0.00
Audiology	1,006	1,006	0	0.0	−3 (2015)	0.00
Occupational therapy	10,215	10,215	0	0.0	−58 (2020)	0.00
Physical therapy	13,762	13,762	0	0.0	+66 (2011)	0.00
Orthotics and prosthetics	324	324	0	0.0	0 (2010)	0.00
Genetic counseling	361	361	0	0.0	0 (2010)	0.00
Nurse anesthesia	1,939	1,939	0	0.0	+43 (2014)	0.00
Nurse midwifery	538	538	0	0.0	0 (2010)	0.00
Acupuncture	1,830	1,831	+1	+0.1	+47 (2019)	0.00
Nurse practitioner (nursing family proxy)	308,021	308,190	+169	+0.1	+573 (2012)	0.00
Nursing practice (DNP)	9,215	9,212	−3	0.0	+22 (2020)	0.03
Registered nursing (undergraduate-entry contrast)	253,572	253,743	+171	+0.1	+515 (2012)	0.01
All health professions (CIP 51)	962,810	963,300	+490	+0.1	+2,538 (2012)	0.02
All fields	5,297,774	5,299,203	+1,429	0.0	+8,551 (2012)	0.02

Units Completions and percent of the provisional count. *Note* NCES publishes both a provisional and a revised Completions file for each survey year from 2010 to 2023; for 2024 only the provisional file, used in this report, was available.*Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026).

Table A9 Base years, 2010 to 2018, on which a field is 30 percent or more below its base, under four readings

Field	All levels, 2024 (provisional)	Degree levels, 2024 (provisional)	All levels, 2023 (revised)	All levels, 2024, whole interval at or below 30 percent
Dietetics	4 (2014, 2015, 2016, 2017)	3 (2015, 2016, 2017)	1 (2016)	2 (2016, 2017)
Athletic training	6 (2012, 2014, 2015, 2016, 2017, 2018)	7 (2012, 2013, 2014, 2015, 2016, 2017, 2018)	4 (2015, 2016, 2017, 2018)	4 (2015, 2016, 2017, 2018)
Physician assistant	0	0	0	0
Speech-language pathology	0	0	0	0
Audiology	1 (2010)	1 (2010)	1 (2010)	0
Occupational therapy	0	0	0	0
Physical therapy	0	0	0	0
Orthotics and prosthetics	0	0	0	0

Field	All levels, 2024 (provisional)	Degree levels, 2024 (provisional)	All levels, 2023 (revised)	All levels, 2024, whole interval at or below 30 percent
Genetic counseling	0	0	0	0
Nurse anesthesia	0	0	0	0
Nurse midwifery	0	0	0	0
Acupuncture	0	0	0	0
Nurse practitioner (nursing family proxy)	0	0	0	0

Units Number of base years (the base years in parentheses). *Source* Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. Revised files are used for 2010 to 2023 and the provisional file for 2024 (last modified by NCES on September 21, 2025; no revised 2024 file was posted when checked on September 15, 2026).

Table A10 Rank correlation between each field's May 2025 mean annual wage and its 2014 to 2024 change in completions, for the six sets of fields reported in the Results

Fields	n	Rank correlation	Two-sided *p*, exact	*p*, 2,000,000 uniform random orderings	Approximate 95% interval	Correlation needed for $p < .05$
All thirteen	13	+0.58	.043	.0425 (Monte Carlo SE 0.00014)	−0.01 to +0.87	±0.56
Twelve: without the nurse practitioner proxy	12	+0.69	.017	.0171 (Monte Carlo SE 0.00009)	+0.11 to +0.92	±0.59
Eleven: without dietetics and athletic training	11	+0.30	.37	.3708 (Monte Carlo SE 0.00034)	−0.38 to +0.77	±0.62
Ten: without an in-window bachelor's-to-graduate mandate	10	+0.21	.56	not needed	−0.49 to +0.75	±0.65
Nine: without a mandate or the proxy	9	+0.42	.27	not needed	−0.37 to +0.86	±0.70
Eight: as ten, also without physical therapy and nurse anesthesia	8	+0.48	.24	not needed	−0.39 to +0.89	±0.74

Source Author's analysis of BLS Occupational Employment and Wage Statistics, May 2025 (national mean annual wage; verified against the BLS public data API on September 15, 2026) and IPEDS Completions, survey years 2014 and 2024, first majors, all award levels; 2024 file provisional. *Note* Exact *p* counts every ordering of the change ranks against the wage ranks (all 3,628,800 at ten fields; all 6,227,020,800 at thirteen, counted exactly rather than listed); for eight to ten fields the orderings were also listed one by one, and for twelve and thirteen the exact value was confirmed with 2,000,000 uniform random orderings. Intervals are Fisher z intervals with the Bonett and Wright (2000) variance and are approximate at these sample sizes. Nurse practitioner pairs the nurse practitioner wage with nursing-family completions (CIP 51.38), 82.5 percent of which were registered nursing completions in 2024 (86.8 percent in 2014). No field shares a wage or a change value with another, so no ties arise. Simulated power at ten fields to detect a population rank correlation of +0.58 is 0.38, and 0.27 at eight fields.

Table A11 Ordinary least squares of the 2014 to 2024 percentage change in completions on May 2025 mean annual wage, fitted on the ten fields without an in-window bachelor's-to-graduate mandate, and each field's departure from it

Field	May 2025 mean wage	Change, 2014 to 2024	In fit	Fitted change	Departure (points)	95% prediction interval (±points)	Departure, fit without genetic counseling
Athletic training (mandate)	$66,620	−32.4%	no	+48.6%	−81.0	141.2	−60.5
Dietetics (mandate)	$77,130	−30.4%	no	+46.9%	−77.3	138.4	−57.8
Orthotics and prosthetics	$83,740	+21.9%	yes	+45.8%	−24.0	150.0	−5.3
Acupuncture	$87,020	−10.8%	yes	+45.3%	−56.1	139.2	−37.7
Audiology	$97,740	+0.3%	yes	+43.5%	−43.2	142.1	−26.0
Speech-language pathology	$98,170	+55.5%	yes	+43.4%	+12.0	148.2	+29.2
Occupational therapy	$101,280	+50.8%	yes	+42.9%	+7.9	148.0	+24.7
Genetic counseling	$104,620	+173.9%	yes	+42.4%	+131.5	65.9	+148.0
Physical therapy	$105,280	+22.0%	yes	+42.3%	−20.3	146.3	−3.9

Field	May 2025 mean wage	Change, 2014 to 2024	In fit	Fitted change	Departure (points)	95% prediction interval (±points)	Departure, fit without genetic counseling
Nurse midwifery	$136,980	+57.0%	yes	+37.1%	+20.0	146.6	+32.9
Nurse practitioner	$137,300	+21.8%	yes	+37.0%	−15.2	147.2	−2.3
Physician assistant (mandate)	$141,280	+71.5%	no	+36.4%	+35.1	134.6	+47.7
Nurse anesthesia	$248,320	+6.1%	yes	+18.8%	−12.6	383.5	−11.6

Source As above. *Note* Fitted line: change = 59.58 − 1.644 × (wage in $10,000s) percent; slope 95 percent interval −10.37 to +7.08 points per $10,000; intercept standard error 48.6; residual standard error 55.1 points on 8 degrees of freedom; R^2 0.02. Without genetic counseling (nine fields) the slope is −0.57 points per $10,000 and the residual standard error 26.3. Prediction intervals for fields in the fit are leave-one-out; for the three mandate fields they are for a new observation. Nurse anesthesia's wage gives it leverage 0.87 in the ten-field fit. Athletic training and dietetics remain the two largest negative departures on log wage, on log change against log wage, on wage rank and with a Theil-Sen line; in each of the ten refits that drop one fitted field, the two remain the largest negative departures among the other twelve fields; in the refit without nurse anesthesia, that field itself sits 101.1 points below the line fitted to the other nine, its wage lying far above theirs. Departures are descriptive and do not estimate a mandate effect.

Appendix B. Institution-level exit and conversion

Field-level completions record the outcome but not the institutional behavior producing it, and IPEDS reports completions by institution. Two descriptive quantities are available and are reported here because they distinguish between mechanisms the field-level series cannot.

The first is exit. Among institutions awarding at least five completions in a field in 2014, the share reporting none in 2024 was 38.0 percent in athletic training (95 percent interval 32.9 to 43.4), the highest point estimate in the set, and 24.6 percent in dietetics (17.8 to 32.9), against a median of 10.4 percent across the nine coded fields without an in-window bachelor's-to-graduate mandate. The nurse practitioner proxy, which has no field code, is excluded from institution-level comparisons. Exit alone does not separate the mandate fields: three fields without such a mandate have rates close to or above dietetics', orthotics and prosthetics at 33.3 percent (15.2 to 58.3, a cohort of fifteen institutions), nurse anesthesia at 28.4 percent (19.0 to 40.1) and acupuncture at 24.0 percent (14.3 to 37.4), and athletic training's interval overlaps that of orthotics and prosthetics. Every field's rate under both definitions and each threshold is in Appendix B. On the primary definition athletic training has the highest point estimate in five of the six combinations of cohort threshold (one, five or ten completions in 2014) and end rule (2024, or the 2023-or-2024 continuing rule), with athletic training rates of 26.3 to 43.8 percent across the six; under the 2023-or-2024 rule at a threshold of ten, nurse anesthesia is higher (29.2 against 26.3 percent); and in every combination athletic training's interval overlaps that of at least one field without an in-window bachelor's-to-graduate mandate.

The measure is also definition-sensitive, and the sensitivity is decisive for one of the two fields. IPEDS distinguishes an institution that files a record reporting zero completions from one that files no record at all. Counting a filed zero as continuing and an institution with no record under the field code in the 2024 file as an exit, athletic training's rate is 22.1 percent (72 of 326), dietetics' 9.8 percent (12 of 122), acupuncture's 22.0 percent, nurse anesthesia's 14.9 percent, and orthotics and prosthetics' 13.3 percent; the three largest cohorts without an in-window bachelor's-to-graduate mandate (physical therapy, occupational therapy, speech-language pathology) run 5.8 to 9.1 percent. Athletic training has the highest point estimate on the first definition and is not distinguishable from acupuncture on the second; dietetics is inside the comparator range on the second. Of the thirty dietetics institutions the first definition counts as exits, eighteen filed an explicit zero-completion record, three are absent from the 2024 file entirely, and twenty-five are awarding completions in an adjacent nutrition code in 2024 (CIP 30.19, other 51.31 codes or 19.05 codes; twenty-two excluding the 19.05 codes), most often Nutrition Sciences. For dietetics the measure is therefore capturing code migration and zero-completion years at least as much as program closure, so no exit finding is drawn for dietetics, and for athletic training the finding is limited to the primary definition. On the second definition the 95 percent intervals are 17.9 to 26.9 for athletic training, 5.7 to 16.4 for dietetics, 12.8 to 35.2 for acupuncture, 8.3 to 25.3 for nurse anesthesia and 3.7 to 37.9 for orthotics and prosthetics, and 3.4 to 9.7, 5.5 to 14.7 and 3.0 to 12.2 for physical therapy, occupational therapy and speech-language pathology. In the deposited script an institution continues on this definition if the 2024 file carries any first-major record for it under the field code, including a record of zero completions, and an adjacent nutrition code is CIP 30.19, any 51.31 code other than 51.3101, or any 19.05 code, with at least one first-major completion at any award level in 2024.

The second is conversion, where the two fields differ. Conversion is counted under one symmetric rule: an institution enters the 2014 cohort if it reported at least five first-major completions in the field code in 2014, at least one of them a bachelor's degree, reported no postbaccalaureate certificate, master's degree, post-master's certificate or doctoral degree in any of the field's discipline codes in 2014 (CIP 51.31, 30.19 and 19.05 for dietetics; 51.0913 and 31.05 for athletic training), and reported at least one completion in the field code in 2024; it counts as converted on the narrow measure if it reported any of those graduate awards in the field code in 2024, and on the adjacent-code measure if it did so or reported a master's or doctoral degree in any of the discipline codes in 2024 (IPEDS Completions, revised 2014 and provisional 2024 files). Within the field code, 12 of 27 (44.4 percent; 95 percent interval 27.6 to 62.7) of dietetics' bachelor's-only 2014 institutions had graduate output by 2024, against 67 of 86 (77.9 percent; 95 percent interval 68.1 to 85.4) in athletic training; counting new graduate degrees in adjacent nutrition codes raises dietetics to 17 of 27 (63.0 percent; 95 percent interval 44.2 to 78.5), and the symmetric adjustment raises athletic training to 72 of 86 (83.7 percent; 95 percent interval 74.5 to 90.0). On these figures the difference between the fields is 33.5 percentage points on the narrow measure (95 percent interval 12.7 to 51.9) and 20.8 counting adjacent codes (2.7 to 40.5), so the gap does not close, but the reduction of 12.7 points is not distinguishable from zero at these cohort sizes

(95 percent interval −2.0 to 29.7 from a bootstrap that resamples institutions). Under a certification-board rule, a bachelor's didactic program remains a route to registration eligibility when combined with a graduate degree, so non-conversion is not non-compliance as it would be under an accreditor rule. The two contracting fields therefore arrive at similar aggregate declines by partly different institutional routes.

Which institutions left is more informative than how many. Merging the 2014 cohorts to the IPEDS institutional characteristics file for the same year, exit is associated with the capacity to comply and, in athletic training, also with sector. Athletic training institutions whose highest level of offering in 2014 was below the master's degree exited at 69.4 percent, against 34.1 percent of institutions already able to confer a graduate degree (25 of 36 against 99 of 290; Fisher exact $p = .0001$). On the definition that counts a filed zero as continuing, dietetics shows the same gradient: 35.7 against 6.5 percent (5 of 14 against 7 of 108; Fisher exact $p = .005$); it is not reported on the first definition, on which the dietetics exit measure was set aside above. In athletic training, private nonprofit institutions exited at 46.0 percent against 31.4 percent of public ones ($p = .010$), and the sector difference persists among institutions that already granted graduate degrees (43 against 28 percent; 52 of 122 against 47 of 167). In dietetics the sector difference is not distinguishable from chance at this cohort size on either definition ($p = .35$ on the first and .74 on the second, with the direction reversing between them), which is not evidence of no difference. Wilson 95 percent intervals are 53.1 to 82.0 and 28.9 to 39.8 for the athletic training capacity rates, 16.3 to 61.2 and 3.2 to 12.8 for dietetics, 37.9 to 54.3 and 25.1 to 38.4 for the athletic training sector rates, and 34.2 to 51.5 and 21.9 to 35.4 within the graduate-capable stratum (difference 14.5 points, 3.4 to 25.3); Holm-adjusted over the four Fisher tests, $p = .0003$ for athletic training capacity, .014 for dietetics capacity, .021 for athletic training sector and .35 for dietetics sector (.74 with the dietetics sector test also taken on the second definition); the table by capacity and sector is in Appendix B. An institution that already granted graduate degrees could move a program up a level; one that did not would have had to build graduate capacity to keep an entry-level program, and such institutions are over-represented among those no longer reporting completions. This is the reverse face of the process Jaquette (2013) documents, in which baccalaureate colleges add graduate provision and become universities in response to enrollment pressure, with age and market position lowering the odds of the move. Here the pressure is a dated external rule rather than a soft enrollment trend.

Two cautions bound this. Absence of reported completions is not the same as program closure, as the dietetics case above shows. And exit is not by itself a distress signal, since nurse anesthesia lost 28.4 percent of its 2014 institutions while its completions grew 6.1 percent, which is consolidation into fewer and larger programs rather than contraction. What the comparison supports is that athletic training's institutional exit rate was the highest point estimate in the set on the primary definition and level with acupuncture's on the alternate one, and that conversion behavior differed between the two contracting fields, by a margin that is smaller counting adjacent codes, though the reduction is not distinguishable from zero.

A dose-response design at institution level is the design a reader will ask for, and these data cannot support it. Baseline award level is close to bimodal: institutions in these fields were overwhelmingly either wholly bachelor's or wholly graduate in 2014, so an institution-level exposure measure collapses to a binary indicator. With a field-wide effective date removing variation in timing as well, there is no dose to estimate.

The tables below report every institution-level quantity behind this account and the summary under What institutions did in the Results. Cohorts are institutions reporting first-major completions in a field's six-digit CIP code in the revised 2014 IPEDS Completions file; the end years use the revised 2023 file and the provisional 2024 file. Rates are shares of institutions, not of completions. Intervals are Wilson 95 percent intervals, read as randomization intervals in the sense set out under Analytic approach. The nurse practitioner proxy has no field code and is excluded.

Definitions. On the *primary definition* an institution exits if it reports no completions in the field code in the end year, so a filed record of zero counts as exit. On the *second definition* it exits only if the end-year file carries no first-major record for it under the field code, so a filed zero counts as continuing. The *threshold* is the minimum number of 2014 completions for entry to the cohort. Under the *2023-or-2024 rule* an institution continues if the condition is met in either year.

Table B1 Institutional exit by 2024, primary definition, by field and 2014 cohort threshold

Field	2014 threshold	Institutions	Exits, 2024	Percent (95% interval)	Exits, 2023 or 2024 rule	Percent (95% interval)
Athletic training	1	400	175	43.8 (39.0 to 48.6)	146	36.5 (31.9 to 41.3)
	5	326	124	38.0 (32.9 to 43.4)	100	30.7 (25.9 to 35.9)
	10	205	64	31.2 (25.3 to 37.9)	54	26.3 (20.8 to 32.8)
Dietetics	1	136	39	28.7 (21.7 to 36.8)	31	22.8 (16.5 to 30.5)
	5	122	30	24.6 (17.8 to 32.9)	24	19.7 (13.6 to 27.6)
	10	109	26	23.9 (16.8 to 32.7)	21	19.3 (13.0 to 27.7)
Physician assistant	1	159	17	10.7 (6.8 to 16.5)	16	10.1 (6.3 to 15.7)
	5	156	16	10.3 (6.4 to 16.0)	15	9.6 (5.9 to 15.3)
	10	155	16	10.3 (6.5 to 16.1)	15	9.7 (6.0 to 15.4)
Physical therapy	1	231	23	10.0 (6.7 to 14.5)	21	9.1 (6.0 to 13.5)
	5	224	18	8.0 (5.1 to 12.3)	17	7.6 (4.8 to 11.8)
	10	217	13	6.0 (3.5 to 10.0)	13	6.0 (3.5 to 10.0)
Occupational therapy	1	168	24	14.3 (9.8 to 20.4)	22	13.1 (8.8 to 19.0)
	5	154	16	10.4 (6.5 to 16.2)	14	9.1 (5.5 to 14.7)
	10	152	15	9.9 (6.1 to 15.6)	13	8.6 (5.1 to 14.1)

Field	2014 threshold	Institutions	Exits, 2024	Percent (95% interval)	Exits, 2023 or 2024 rule	Percent (95% interval)
Speech-language pathology	1	117	13	11.1 (6.6 to 18.1)	11	9.4 (5.3 to 16.1)
	5	113	10	8.8 (4.9 to 15.5)	8	7.1 (3.6 to 13.4)
	10	108	9	8.3 (4.4 to 15.1)	7	6.5 (3.2 to 12.8)
Nurse anesthesia	1	67	19	28.4 (19.0 to 40.1)	19	28.4 (19.0 to 40.1)
	5	67	19	28.4 (19.0 to 40.1)	19	28.4 (19.0 to 40.1)
	10	65	19	29.2 (19.6 to 41.2)	19	29.2 (19.6 to 41.2)
Audiology	1	61	6	9.8 (4.6 to 19.8)	6	9.8 (4.6 to 19.8)
	5	50	5	10.0 (4.3 to 21.4)	5	10.0 (4.3 to 21.4)
	10	25	3	12.0 (4.2 to 30.0)	3	12.0 (4.2 to 30.0)
Acupuncture	1	50	12	24.0 (14.3 to 37.4)	8	16.0 (8.3 to 28.5)
	5	50	12	24.0 (14.3 to 37.4)	8	16.0 (8.3 to 28.5)
	10	44	11	25.0 (14.6 to 39.4)	8	18.2 (9.5 to 32.0)
Genetic counseling	1	17	3	17.6 (6.2 to 41.0)	3	17.6 (6.2 to 41.0)
	5	16	3	18.8 (6.6 to 43.0)	3	18.8 (6.6 to 43.0)
	10	4	1	25.0 (4.6 to 69.9)	1	25.0 (4.6 to 69.9)
Orthotics and prosthetics	1	18	6	33.3 (16.3 to 56.3)	4	22.2 (9.0 to 45.2)
	5	15	5	33.3 (15.2 to 58.3)	3	20.0 (7.0 to 45.2)
	10	13	4	30.8 (12.7 to 57.6)	3	23.1 (8.2 to 50.3)
Nurse midwifery	1	19	4	21.1 (8.5 to 43.3)	4	21.1 (8.5 to 43.3)
	5	13	1	7.7 (1.4 to 33.3)	1	7.7 (1.4 to 33.3)
	10	8	1	12.5 (2.2 to 47.1)	1	12.5 (2.2 to 47.1)

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. *Note* Units are institutions. Dietetics, athletic training and physician assistant studies are the three fields with an in-window bachelor's-to-graduate mandate. Cohorts of fewer than twenty institutions give wide intervals and are shown for completeness.

Table B2 Institutional exit by 2024, second definition, by field and 2014 cohort threshold

Field	2014 threshold	Institutions	Exits, 2024	Percent (95% interval)	Exits, 2023 or 2024 rule	Percent (95% interval)
Athletic training	1	400	110	27.5 (23.4 to 32.1)	93	23.2 (19.4 to 27.6)
	5	326	72	22.1 (17.9 to 26.9)	61	18.7 (14.9 to 23.3)
	10	205	35	17.1 (12.5 to 22.8)	30	14.6 (10.4 to 20.1)
Dietetics	1	136	19	14.0 (9.1 to 20.8)	16	11.8 (7.4 to 18.3)
	5	122	12	9.8 (5.7 to 16.4)	11	9.0 (5.1 to 15.4)
	10	109	10	9.2 (5.1 to 16.1)	10	9.2 (5.1 to 16.1)
Physician assistant	1	159	13	8.2 (4.8 to 13.5)	11	6.9 (3.9 to 12.0)
	5	156	12	7.7 (4.5 to 13.0)	11	7.1 (4.0 to 12.2)
	10	155	12	7.7 (4.5 to 13.0)	11	7.1 (4.0 to 12.3)
Physical therapy	1	231	18	7.8 (5.0 to 12.0)	17	7.4 (4.6 to 11.5)
	5	224	13	5.8 (3.4 to 9.7)	13	5.8 (3.4 to 9.7)
	10	217	10	4.6 (2.5 to 8.3)	10	4.6 (2.5 to 8.3)
Occupational therapy	1	168	18	10.7 (6.9 to 16.3)	18	10.7 (6.9 to 16.3)
	5	154	14	9.1 (5.5 to 14.7)	14	9.1 (5.5 to 14.7)
	10	152	13	8.6 (5.1 to 14.1)	13	8.6 (5.1 to 14.1)
Speech-language pathology	1	117	8	6.8 (3.5 to 12.9)	7	6.0 (2.9 to 11.8)

Field	2014 threshold	Institutions	Exits, 2024	Percent (95% interval)	Exits, 2023 or 2024 rule	Percent (95% interval)
	5	113	7	6.2 (3.0 to 12.2)	6	5.3 (2.5 to 11.1)
	10	108	7	6.5 (3.2 to 12.8)	6	5.6 (2.6 to 11.6)
Nurse anesthesia	1	67	10	14.9 (8.3 to 25.3)	10	14.9 (8.3 to 25.3)
	5	67	10	14.9 (8.3 to 25.3)	10	14.9 (8.3 to 25.3)
	10	65	10	15.4 (8.6 to 26.1)	10	15.4 (8.6 to 26.1)
Audiology	1	61	4	6.6 (2.6 to 15.7)	4	6.6 (2.6 to 15.7)
	5	50	3	6.0 (2.1 to 16.2)	3	6.0 (2.1 to 16.2)
	10	25	2	8.0 (2.2 to 25.0)	2	8.0 (2.2 to 25.0)
Acupuncture	1	50	11	22.0 (12.8 to 35.2)	8	16.0 (8.3 to 28.5)
	5	50	11	22.0 (12.8 to 35.2)	8	16.0 (8.3 to 28.5)
	10	44	11	25.0 (14.6 to 39.4)	8	18.2 (9.5 to 32.0)
Genetic counseling	1	17	2	11.8 (3.3 to 34.3)	2	11.8 (3.3 to 34.3)
	5	16	2	12.5 (3.5 to 36.0)	2	12.5 (3.5 to 36.0)
	10	4	1	25.0 (4.6 to 69.9)	1	25.0 (4.6 to 69.9)
Orthotics and prosthetics	1	18	3	16.7 (5.8 to 39.2)	3	16.7 (5.8 to 39.2)
	5	15	2	13.3 (3.7 to 37.9)	2	13.3 (3.7 to 37.9)
	10	13	2	15.4 (4.3 to 42.2)	2	15.4 (4.3 to 42.2)
Nurse midwifery	1	19	3	15.8 (5.5 to 37.6)	3	15.8 (5.5 to 37.6)
	5	13	1	7.7 (1.4 to 33.3)	1	7.7 (1.4 to 33.3)
	10	8	1	12.5 (2.2 to 47.1)	1	12.5 (2.2 to 47.1)

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. *Note* Units are institutions. Dietetics, athletic training and physician assistant studies are the three fields with an in-window bachelor's-to-graduate mandate. Cohorts of fewer than twenty institutions give wide intervals and are shown for completeness.

Table B3 Composition of exits by 2024, institutions with at least five completions in 2014

Field	Institutions	Exits, primary definition	Filed a zero record	No record in the field code, institution in the 2024 file	Absent from the 2024 file	Of those absent, not listed in HD2024	Exits, second definition
Athletic training	326	124	52	63	9	9	72
Dietetics	122	30	18	9	3	3	12
Physician assistant	156	16	4	7	5	5	12
Physical therapy	224	18	5	4	9	9	13
Occupational therapy	154	16	2	7	7	7	14
Speech-language pathology	113	10	3	3	4	4	7
Nurse anesthesia	67	19	9	6	4	4	10
Audiology	50	5	2	2	1	1	3
Acupuncture	50	12	1	1	10	7	11
Genetic counseling	16	3	1	2	0	0	2
Orthotics and prosthetics	15	5	3	2	0	0	2

Field	Institutions	Exits, primary definition	Filed a zero record	No record in the field code, institution in the 2024 file	Absent from the 2024 file	Of those absent, not listed in HD2024	Exits, second definition
Nurse midwifery	13	1	0	0	1	1	1

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. Listing from IPEDS Institutional Characteristics HD2024 (NCES posting of September 21, 2025, retrieved September 15, 2026). *Note* An institution not listed in HD2024 is outside the IPEDS universe for the 2024 collection; the listing alone does not distinguish closure from merger or a change of identifier. Second-definition exits are the sum of the two no-record columns.

Of the thirty dietetics exits on the primary definition, eighteen filed a zero record, nine filed other records but none under the field code, and three are absent from the 2024 file. In 2024, twenty-five reported at least one first-major completion under an adjacent nutrition code (CIP 30.19, a 51.31 code other than 51.3101, or a 19.05 code), twenty-two excluding the 19.05 codes, and seventeen of the twenty-five reported a master's or doctoral degree in one of those codes. Counted by institution, the adjacent codes were 30.1901 Nutrition Sciences (17); 51.3102 Clinical Nutrition/Nutritionist (4); 19.0501 Foods, Nutrition, and Wellness Studies, General (4); 19.0504 Human Nutrition (3); 51.3199 Dietetics and Clinical Nutrition Services, Other (3); 19.0505 Foodservice Systems Administration/Management (2); 51.3103 Dietetic Technician (1); 51.3104 Dietitian Assistant (1). An institution can report under more than one code. For comparison under the same kind of count, 98 of the 124 athletic training exits reported 2024 completions under CIP 31.05.

Table B4 Differences in exit rate between athletic training or dietetics and each other field, institutions with at least five completions in 2014, 2024

Reference field	Other field	Definition	Difference, points	Newcombe 95% interval	Clustered bootstrap 95% interval	Fisher *p*	Holm *p* (11 tests)	Shared institutions
Athletic training	Dietetics	primary	13.4	3.7 to 22.1	4.2 to 22.8	.007	.045	43
Athletic training	Physician assistant	primary	27.8	20.1 to 34.4	20.7 to 34.7	<.0001	<.0001	47
Athletic training	Physical therapy	primary	30.0	23.3 to 36.1	24.0 to 36.1	<.0001	<.0001	82
Athletic training	Occupational therapy	primary	27.6	19.9 to 34.3	20.7 to 34.6	<.0001	<.0001	55
Athletic training	Speech-language pathology	primary	29.2	20.8 to 35.9	22.0 to 36.5	<.0001	<.0001	41
Athletic training	Nurse anesthesia	primary	9.7	−3.1 to 20.5	−2.7 to 21.5	.16	.49	12
Athletic training	Audiology	primary	28.0	15.6 to 35.8	18.2 to 37.2	<.0001	.0003	19
Athletic training	Acupuncture	primary	14.0	−0.3 to 25.1	0.6 to 26.8	.059	.24	0
Athletic training	Genetic counseling	primary	19.3	−5.5 to 32.6	−2.8 to 38.6	.18	.49	2
Athletic training	Orthotics and prosthetics	primary	4.7	−20.8 to 23.6	−22.3 to 28.6	.79	.79	1
Athletic training	Nurse midwifery	primary	30.3	4.2 to 38.6	11.9 to 42.0	.036	.18	4
Athletic training	Dietetics	second	12.2	4.5 to 18.6	5.2 to 19.1	.003	.019	43
Athletic training	Physician assistant	second	14.4	7.7 to 20.2	8.3 to 20.2	.0001	.0006	47
Athletic training	Physical therapy	second	16.3	10.6 to 21.7	11.2 to 21.6	<.0001	<.0001	82
Athletic training	Occupational therapy	second	13.0	6.0 to 19.0	6.9 to 19.3	.0005	.004	55
Athletic training	Speech-language pathology	second	15.9	8.6 to 21.7	9.8 to 22.0	.0001	.0006	41
Athletic training	Nurse anesthesia	second	7.2	−4.1 to 15.3	−3.1 to 16.3	.25	1.00	12

Reference field	Other field	Definition	Difference, points	Newcombe 95% interval	Clustered bootstrap 95% interval	Fisher *p*	Holm *p* (11 tests)	Shared institutions
Athletic training	Audiology	second	16.1	5.1 to 22.3	8.2 to 23.4	.007	.042	19
Athletic training	Acupuncture	second	0.1	−13.8 to 10.5	−12.9 to 12.0	1.00	1.00	0
Athletic training	Genetic counseling	second	9.6	−14.3 to 19.8	−9.5 to 24.1	.54	1.00	2
Athletic training	Orthotics and prosthetics	second	8.8	−16.1 to 19.5	−12.2 to 24.3	.54	1.00	1
Athletic training	Nurse midwifery	second	14.4	−11.6 to 22.3	−3.8 to 25.6	.31	1.00	4
Dietetics	Athletic training	primary	−13.4	−22.1 to −3.7	−22.8 to −4.2	.007	.052	43
Dietetics	Physician assistant	primary	14.3	5.4 to 23.5	5.5 to 23.5	.002	.017	19
Dietetics	Physical therapy	primary	16.6	8.5 to 25.4	8.3 to 25.0	<.0001	.0004	38
Dietetics	Occupational therapy	primary	14.2	5.3 to 23.4	5.1 to 23.2	.002	.017	23
Dietetics	Speech-language pathology	primary	15.7	6.2 to 25.0	6.4 to 25.1	.002	.016	22
Dietetics	Nurse anesthesia	primary	−3.8	−17.3 to 8.8	−17.1 to 8.7	.61	1.00	7
Dietetics	Audiology	primary	14.6	1.4 to 24.7	2.6 to 25.8	.037	.22	13
Dietetics	Acupuncture	primary	0.6	−14.4 to 13.4	−13.9 to 14.2	1.00	1.00	0
Dietetics	Genetic counseling	primary	5.8	−19.4 to 20.6	−16.6 to 25.7	.76	1.00	3
Dietetics	Orthotics and prosthetics	primary	−8.7	−34.6 to 11.2	−36.9 to 15.7	.53	1.00	3
Dietetics	Nurse midwifery	primary	16.9	−9.6 to 27.4	−2.8 to 30.4	.30	1.00	1
Dietetics	Athletic training	second	−12.2	−18.6 to −4.5	−19.1 to −5.2	.003	.029	43
Dietetics	Physician assistant	second	2.1	−4.5 to 9.5	−4.6 to 9.0	.53	1.00	19
Dietetics	Physical therapy	second	4.0	−1.6 to 11.0	−1.7 to 10.0	.19	1.00	38
Dietetics	Occupational therapy	second	0.7	−6.2 to 8.2	−6.0 to 7.7	.84	1.00	23
Dietetics	Speech-language pathology	second	3.6	−3.7 to 10.9	−3.2 to 10.5	.35	1.00	22
Dietetics	Nurse anesthesia	second	−5.1	−16.3 to 4.2	−15.5 to 4.5	.35	1.00	7
Dietetics	Audiology	second	3.8	−7.2 to 11.5	−5.0 to 11.9	.56	1.00	13
Dietetics	Acupuncture	second	−12.2	−26.0 to −0.8	−25.3 to −0.0	.047	.47	0
Dietetics	Genetic counseling	second	−2.7	−26.5 to 8.5	−22.4 to 12.1	.67	1.00	3
Dietetics	Orthotics and prosthetics	second	−3.5	−28.4 to 8.1	−24.5 to 12.1	.65	1.00	3
Dietetics	Nurse midwifery	second	2.1	−23.8 to 11.3	−16.5 to 14.0	1.00	1.00	1

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. *Note* Holm adjustment is within each block of eleven comparisons. Fisher and Newcombe treat the two cohorts as independent; the bootstrap resamples institutions (5000 replicates, fixed seed), each carrying all of its field

memberships, so an institution in two cohorts moves together. Across bootstrap replicates, athletic training has the strictly highest rate in 57.2 percent on the primary definition and 35.1 percent on the second. The median rate across the nine coded fields without an in-window mandate is 10.4 percent on the primary definition (bootstrap 95 percent interval 7.7 to 20.0) and 9.1 percent on the second (5.2 to 14.3).

Table B5 Conversion to graduate output, 2014 to 2024, athletic training and dietetics

Rule	Measure	Dietetics	Percent (95% interval)	Athletic training	Percent (95% interval)
Symmetric rule (reported in the Results)	Narrow, field code	12 of 27	44.4 (27.6 to 62.7)	67 of 86	77.9 (68.1 to 85.4)
Symmetric rule (reported in the Results)	Adjacent codes	17 of 27	63.0 (44.2 to 78.5)	72 of 86	83.7 (74.5 to 90.0)
Symmetric rule without the bachelor's condition	Narrow, field code	12 of 32	37.5 (22.9 to 54.7)	67 of 92	72.8 (63.0 to 80.9)
Symmetric rule without the bachelor's condition	Adjacent codes	17 of 32	53.1 (36.4 to 69.1)	72 of 92	78.3 (68.8 to 85.5)
Cohort excludes 2014 graduate degrees only	Narrow, field code	17 of 32	53.1 (36.4 to 69.1)	69 of 88	78.4 (68.7 to 85.7)
Cohort excludes 2014 graduate degrees only	Adjacent codes	22 of 32	68.8 (51.4 to 82.0)	74 of 88	84.1 (75.0 to 90.3)
Symmetric cohort; adjacent measure counts graduate certificates	Adjacent codes	17 of 27	63.0 (44.2 to 78.5)	72 of 86	83.7 (74.5 to 90.0)
Cohort need not report field-code completions in 2024	Narrow, field code	12 of 35	34.3 (20.8 to 50.8)	67 of 158	42.4 (35.0 to 50.2)
Cohort need not report field-code completions in 2024	Adjacent codes	22 of 35	62.9 (46.3 to 76.8)	83 of 158	52.5 (44.8 to 60.2)
Dietetics discipline codes 51.31 and 30.19 only	Narrow, field code	14 of 40	35.0 (22.1 to 50.5)	n/a	n/a
Dietetics discipline codes 51.31 and 30.19 only	Adjacent codes	24 of 40	60.0 (44.6 to 73.7)	n/a	n/a
Earlier deposited script: bachelor's share at least 0.9	Narrow, field code	14 of 46	30.4 (19.1 to 44.8)	136 of 167	81.4 (74.9 to 86.6)
Earlier printed figures: bachelor's share 1.0, sub-baccalaureate excluded	Narrow, field code	14 of 47	29.8 (18.7 to 44.0)	134 of 165	81.2 (74.6 to 86.4)
Earlier printed cohort, new adjacent graduate degrees added (dietetics)	Adjacent codes	19 of 47	40.4 (27.6 to 54.7)	n/a	n/a
Earlier deposited cohort, any graduate award in 51.0913 or 31.05 (athletic training)	Adjacent codes	n/a	n/a	152 of 167	91.0 (85.7 to 94.5)

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. *Note* Units are institutions. The symmetric rule: an institution enters the 2014 cohort if it reported at least five first-major completions in the field code in 2014, at least one of them a bachelor's degree, reported no postbaccalaureate certificate, master's degree, post-master's certificate or doctoral degree in any of the field's discipline codes in 2014 (CIP 51.31, 30.19 and 19.05 for dietetics; 51.0913 and 31.05 for athletic training), and reported at least one completion in the field code in 2024; it counts as converted on the narrow measure if it reported any of those graduate awards in the field code in 2024, and on the adjacent-code measure if it did so or reported a master's or doctoral degree in any of the discipline codes in 2024 (IPEDS Completions, revised 2014 and provisional 2024 files). Graduate awards are postbaccalaureate certificates, master's degrees, post-master's certificates and doctoral degrees. The earlier rules are shown so that figures in earlier versions can be traced; they define the cohort by bachelor's share rather than by the absence of graduate awards in the discipline codes.

On the symmetric rule the athletic training minus dietetics difference is 33.5 percentage points on the narrow measure (Newcombe 95 percent interval 12.7 to 51.9) and 20.8 on the adjacent-code measure (2.7 to 40.5). The reduction of 12.7 points has an institution-resampling bootstrap 95 percent interval of −2.0 to 29.7. Of the institutions still reporting field-code completions in 2024 (92 in dietetics, 202 in athletic training), the symmetric cohort excludes 60 and 110 for a 2014 graduate award in the discipline codes and a further five and six with no bachelor's degree in the field code in 2014. Without the bachelor's condition the difference is 35.3 points on the narrow measure and 25.1 counting adjacent codes (reduction

10.2, bootstrap 95 percent interval −2.3 to 25.0). Adjacent-only converters by code: dietetics 51.3102 Clinical Nutrition/Nutritionist (2); 30.1901 Nutrition Sciences (2); 19.0504 Human Nutrition (1); athletic training 31.0505 Exercise Science and Kinesiology (3); 31.0504 Sport and Fitness Administration/Management (2); 31.0501 Sports, Kinesiology, and Physical Education/Fitness, General (1).

Table B6 Exit by 2024 by capacity to confer a graduate degree and by control in 2014, athletic training, institutions with at least five completions in 2014

Group	Institutions	Exits, primary	Percent (95% interval)	Exits, second	Percent (95% interval)
Highest offering below master's	36	25	69.4 (53.1 to 82.0)	16	44.4 (29.5 to 60.4)
Master's or higher offered	290	99	34.1 (28.9 to 39.8)	56	19.3 (15.2 to 24.2)
Public	185	58	31.4 (25.1 to 38.4)	33	17.8 (13.0 to 24.0)
Private nonprofit	137	63	46.0 (37.9 to 54.3)	36	26.3 (19.6 to 34.2)
Private for-profit	4	3	75.0 (30.1 to 95.4)	3	75.0 (30.1 to 95.4)
Public, highest offering below master's	18	11	61.1 (38.6 to 79.7)	6	33.3 (16.3 to 56.3)
Public, master's or higher offered	167	47	28.1 (21.9 to 35.4)	27	16.2 (11.4 to 22.5)
Private nonprofit, highest offering below master's	15	11	73.3 (48.0 to 89.1)	7	46.7 (24.8 to 69.9)
Private nonprofit, master's or higher offered	122	52	42.6 (34.2 to 51.5)	29	23.8 (17.1 to 32.1)
Private for-profit, highest offering below master's	3	3	100.0 (43.8 to 100.0)	3	100.0 (43.8 to 100.0)
Private for-profit, master's or higher offered	1	0	0.0 (0.0 to 79.3)	0	0.0 (0.0 to 79.3)

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. Capacity and control from IPEDS Institutional Characteristics HD2014 (NCES posting of November 2, 2015): highest level of offering master's degree, post-master's certificate or doctor's degree counts as graduate-capable; a postbaccalaureate certificate does not.

Table B7 Exit by 2024 by capacity to confer a graduate degree and by control in 2014, dietetics, institutions with at least five completions in 2014

Group	Institutions	Exits, primary	Percent (95% interval)	Exits, second	Percent (95% interval)
Highest offering below master's	14	7	50.0 (26.8 to 73.2)	5	35.7 (16.3 to 61.2)
Master's or higher offered	108	23	21.3 (14.6 to 29.9)	7	6.5 (3.2 to 12.8)
Public	88	24	27.3 (19.1 to 37.4)	8	9.1 (4.7 to 16.9)
Private nonprofit	34	6	17.6 (8.3 to 33.5)	4	11.8 (4.7 to 26.6)
Public, highest offering below master's	9	4	44.4 (18.9 to 73.3)	2	22.2 (6.3 to 54.7)
Public, master's or higher offered	79	20	25.3 (17.0 to 35.9)	6	7.6 (3.5 to 15.6)
Private nonprofit, highest offering below master's	5	3	60.0 (23.1 to 88.2)	3	60.0 (23.1 to 88.2)
Private nonprofit, master's or higher offered	29	3	10.3 (3.6 to 26.4)	1	3.4 (0.6 to 17.2)

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. Capacity and control from IPEDS Institutional Characteristics HD2014 (NCES posting of November 2, 2015): highest level of offering master's degree, post-master's certificate or doctor's degree counts as graduate-capable; a postbaccalaureate certificate does not.

Table B8 Tests of capacity and sector

Field	Definition	Comparison	Group 1	Group 2	Difference, points (Newcombe 95%)	Fisher *p*	Holm *p*, four tests as reported	Holm *p*, dietetics sector on second definition
Athletic training	primary	highest offering below master's against master's or higher	25 of 36	99 of 290	35.3 (18.1 to 48.9)	.0001	.0003	.0003
Athletic training	primary	private nonprofit against public	63 of 137	58 of 185	14.6 (3.9 to 25.1)	.010	.021	.021
Athletic training	primary	private nonprofit against public, master's or higher offered	52 of 122	47 of 167	14.5 (3.4 to 25.3)	.012		
Athletic training	primary	private nonprofit against public, highest offering below master's	11 of 15	11 of 18	12.2 (−19.2 to 39.7)	.71		
Athletic training	second	highest offering below master's against master's or higher	16 of 36	56 of 290	25.1 (9.4 to 41.6)	.002		
Athletic training	second	private nonprofit against public	36 of 137	33 of 185	8.4 (−0.6 to 17.7)	.075		
Athletic training	second	private nonprofit against public, master's or higher offered	29 of 122	27 of 167	7.6 (−1.6 to 17.2)	.13		
Athletic training	second	private nonprofit against public, highest offering below master's	7 of 15	6 of 18	13.3 (−18.3 to 42.1)	.49		
Dietetics	primary	highest offering below master's against master's or higher	7 of 14	23 of 108	28.7 (3.9 to 52.8)	.041		
Dietetics	primary	private nonprofit against public	6 of 34	24 of 88	−9.6 (−23.4 to 8.2)	.35	.35	
Dietetics	primary	private nonprofit against public, master's or higher offered	3 of 29	20 of 79	−15.0 (−27.5 to 3.1)	.12		
Dietetics	primary	private nonprofit against public, highest offering below master's	3 of 5	4 of 9	15.6 (−31.3 to 53.6)	1.00		
Dietetics	second	highest offering below master's against master's or higher	5 of 14	7 of 108	29.2 (8.9 to 55.0)	.005	.014	.014
Dietetics	second	private nonprofit against public	4 of 34	8 of 88	2.7 (−7.9 to 18.2)	.74		.74
Dietetics	second	private nonprofit against public, master's or higher offered	1 of 29	6 of 79	−4.1 (−12.6 to 10.2)	.67		

Field	Definition	Comparison	Group 1	Group 2	Difference, points (Newcombe 95%)	Fisher *p*	Holm *p*, four tests as reported	Holm *p*, dietetics sector on second definition
Dietetics	second	private nonprofit against public, highest offering below master's	3 of 5	2 of 9	37.8 (−11.4 to 70.2)	.27		

Source Author's analysis of IPEDS Completions, survey year 2014 (revised file, NCES posting of August 12, 2016) and survey years 2023 (revised file) and 2024 (provisional file), both NCES postings of September 21, 2025; files retrieved June 26, 2026 and confirmed byte-identical to the NCES postings on September 15, 2026. First majors, all award levels. *Note* The four tests reported in the Results are athletic training capacity and sector on the primary definition, dietetics capacity on the second definition and dietetics sector as printed on the primary definition. Holm adjustment across those four and the within-stratum athletic training sector test gives $p = .031$ for the within-stratum test. Exact tests stratified by capacity, for sector: athletic training, primary definition, $p = .009$ (Mantel-Haenszel common odds ratio 1.88); athletic training, second definition, $p = .096$ (Mantel-Haenszel common odds ratio 1.64); dietetics, primary definition, $p = .24$ (Mantel-Haenszel common odds ratio 0.50); dietetics, second definition, $p = 1.00$ (Mantel-Haenszel common odds ratio 1.18).

Table B9 Institutions per field

Field	Any record in the field code, 2010 to 2024	At least one completion, 2010 to 2024	2014 cohort, threshold 1	Threshold 5	Threshold 10	At least one completion, 2024
Athletic training	579	554	400	326	205	308
Dietetics	227	206	136	122	109	145
Physician assistant	317	298	159	156	155	262
Physical therapy	341	313	231	224	217	268
Occupational therapy	301	280	168	154	152	235
Speech-language pathology	227	210	117	113	108	184
Nurse anesthesia	115	105	67	67	65	73
Audiology	86	79	61	50	25	68
Acupuncture	62	61	50	50	44	45
Genetic counseling	51	45	17	16	4	35
Orthotics and prosthetics	25	24	18	15	13	16
Nurse midwifery	38	32	19	13	8	25

Source Author's analysis of IPEDS Completions, survey years 2010 to 2024 as extracted in the deposited raw rows (2010 to 2023 revised files, 2024 provisional file); the 2014, 2023 and 2024 rows are confirmed identical to the full NCES files. *Note* A record can report zero completions; the first column counts every institution that filed any record under the field code in any year.

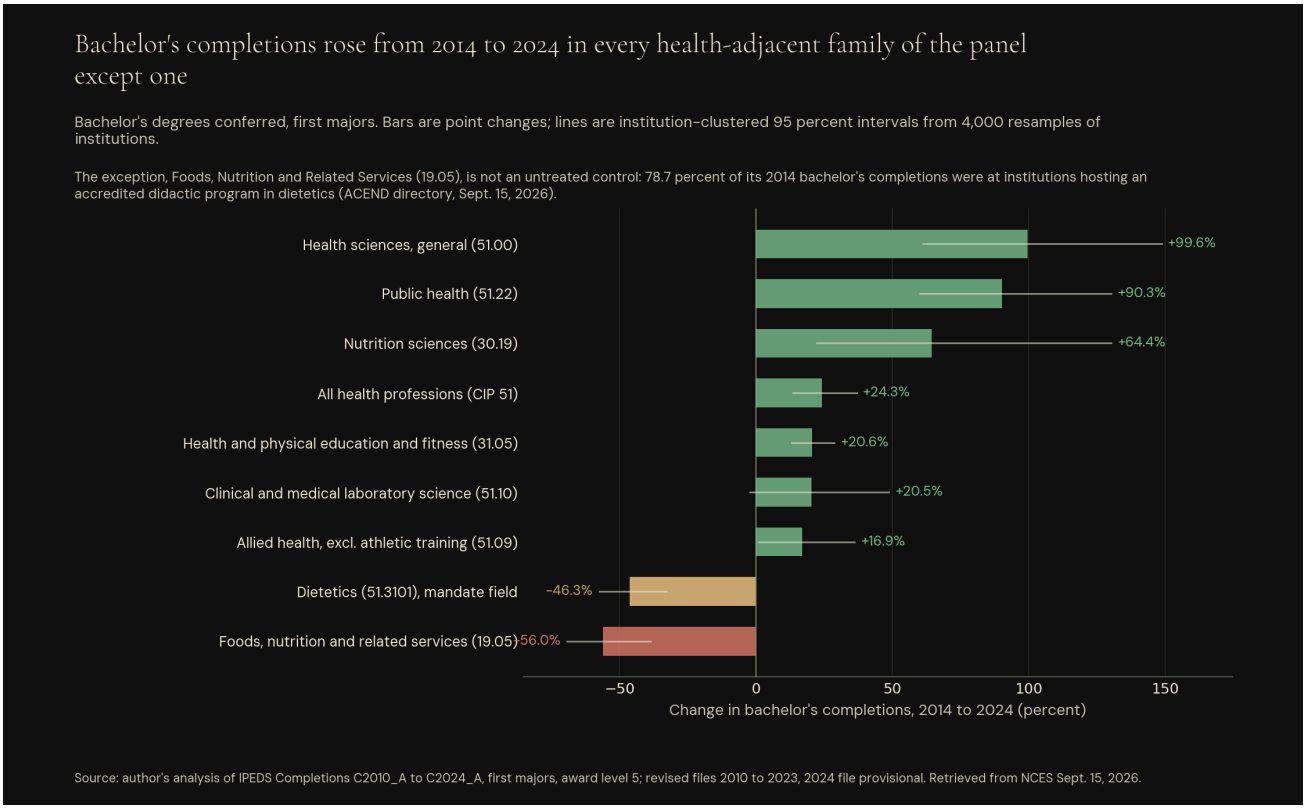
Appendix C. Bachelor's-entry control panel

The comparator set is graduate-heavy at baseline, so this appendix builds a panel of bachelor's-heavy health-adjacent families under the same rules as the thirteen-field series: IPEDS Completions, first majors, bachelor's degrees (award level 5), revised files for 2010 to 2023 and the provisional file for 2024. The extraction reproduces every cell of the deposited comparator series before it is extended. Completions are a census, so the intervals do not describe sampling error in the usual sense: each is a 95 percent percentile interval from 4,000 bootstrap resamples of institutions, which shows how far a change depends on a small number of institutions, and differences between series resample the same institutions jointly. The intervals are not adjusted for the number of comparisons. The last column of Table C2 gives the standard deviation of each series' own annual percentage changes from 2010 to 2019, its ordinary year-to-year movement.

What the panel shows. Because the comparator set is graduate-heavy at baseline, a shock specific to undergraduate health-adjacent production would appear mainly in the two contracting fields; this panel is the check on that. On that check, bachelor's completions grew in every family of the panel but one. From 2014 to the provisional 2024 file, they rose 20.6 percent in health and physical education and fitness (CIP 31.05), 16.9 percent in allied health diagnostic, intervention and treatment programs excluding athletic training (51.09), 20.5 percent in clinical and medical laboratory science (51.10), 90.3 percent in public health (51.22), 99.6 percent in general health sciences (51.00), 64.4 percent in Nutrition Sciences (30.19) and 24.3 percent across the health professions as a whole (CIP 51), and for each of these the 95 percent interval for the difference from dietetics' bachelor's change (−46.3 percent), clustered by institution, excludes zero on the 2024 file and on the revised 2023 file (Appendix C). The exception is Foods, Nutrition and Related Services (CIP 19.05), whose bachelor's completions fell 56.0 percent, from 4,444 to 1,956, a change not distinguishable from dietetics' (difference 9.7 percentage points, 95 percent interval −13.3 to 30.1). Matched to ACEND's directory of accredited didactic programs as of September 15, 2026, 78.7 percent of those 2014 completions (95 percent interval 64.2 to 90.6) and 88.4 percent of the fall were

at institutions that host such a program, and at thirty of the 203 institutions on the directory, 19.05 is the only one of the three nutrition code groups (51.31, 19.05 and 30.19) with bachelor's output in 2024. Code 19.05 therefore cannot serve as an untreated control, and at those thirty institutions it is the most likely code for the didactic program's own bachelor's graduates, although IPEDS cannot confirm that or separate didactic-program students from other nutrition majors reported under 19.05 at the same institution. At institutions not on the directory, 19.05 bachelor's completions fell 30.5 percent, with an interval (−63.1 to 29.8) too wide to say whether that fall differs from the fall at didactic-program institutions.

Fig. C1 Change in bachelor's completions from 2014 to the provisional 2024 file, for each family of the control panel and for dietetics. Bars are point changes; lines are institution-clustered 95 percent intervals from 4,000 resamples of institutions. Every family rose except Foods, Nutrition and Related Services (CIP 19.05), which fell 56.0 percent beside dietetics' 46.3 percent; 19.05 is not an untreated control, because 78.7 percent of its 2014 bachelor's completions were at institutions hosting an accredited didactic program in dietetics on the accreditor's directory of September 15, 2026. Intervals are not adjusted for the number of comparisons. *Source* Author's analysis of IPEDS Completions C2010_A to C2024_A, first majors, award level 5; revised files 2010 to 2023, 2024 file provisional; retrieved from the National Center for Education Statistics on September 15, 2026



Public health bachelor's completions rose 90.3 percent from 2014 to 2024 and general health sciences 99.6 percent, while dietetics fell 46.3 percent and the one other falling family, Foods, Nutrition and Related Services, fell 56.0 percent; every interval for a rising family lies clear of zero.

Table C1 Bachelor's completions by field family, 2010 to 2024

Units bachelor's degrees conferred, first majors. *Basis* all institutions reporting to IPEDS; six-digit CIP codes aggregated to the families shown.

Family	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Foods, nutrition and related services (19.05)	3,660	3,938	3,923	4,064	4,444	4,520	4,549	4,205	3,589	3,512	3,026	2,932	2,417	2,110	1,956
Health and physical education/fitness (31.05)	27,450	30,168	33,176	36,707	39,664	42,428	44,632	46,932	47,673	47,538	48,119	49,248	48,221	47,490	47,831
Allied health diagnostic, intervention and treatment (51.09), excl. athletic training	4,833	5,300	5,636	5,761	5,939	6,273	6,692	6,945	6,929	7,487	7,123	7,169	7,119	6,971	6,940

Family	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
51.09 excl. athletic training and physician assistant	4,089	4,547	4,903	5,197	5,429	5,647	6,135	6,404	6,349	6,951	6,744	6,761	6,824	6,645	6,629
Clinical/medical laboratory science (51.10)	2,807	2,733	2,973	3,089	3,252	3,440	3,640	3,648	3,778	3,789	3,866	4,010	3,986	4,009	3,918
Public health (51.22)	4,336	5,117	6,223	7,827	9,323	10,602	12,406	13,881	15,174	16,586	17,626	19,060	19,077	18,738	17,743
Health sciences, general (51.00)	5,246	6,253	6,527	8,294	9,953	11,671	13,279	14,708	15,586	16,420	17,554	18,758	18,932	19,190	19,867
Nutrition sciences (30.19)	1,383	1,694	1,623	1,893	1,965	2,078	2,211	2,542	3,397	3,306	3,485	3,771	3,734	3,394	3,231
All health professions (CIP 51)	131,413	145,830	167,188	185,410	203,264	221,170	234,188	243,575	250,430	257,059	262,411	273,126	268,013	255,079	252,741
CIP 51 excl. 51.3101 and 51.0913	126,277	140,432	161,188	179,318	196,486	214,038	226,766	236,370	243,672	251,139	257,292	268,824	264,358	252,225	250,381
Dietetics (51.3101), mandate field	2,433	2,588	2,565	2,682	3,096	3,292	3,477	3,307	2,739	2,347	2,308	2,244	2,288	1,910	1,663
Athletic training (51.0913), mandate field	2,703	2,810	3,435	3,410	3,682	3,840	3,945	3,898	4,019	3,573	2,811	2,058	1,367	944	697

Source Author's analysis of IPEDS Completions C2010_A to C2024_A (revised files 2010 to 2023; 2024 provisional), retrieved from NCES on September 15, 2026.

Table C2 Change in bachelor's completions from 2014, with institution-clustered 95 percent intervals

Units percent change and percentage points. *Basis* bachelor's degrees, first majors; difference is the dietetics (51.3101) bachelor's change minus the family's change.

Family	2014	2024 (provisional)	Change to 2024, % [95% interval]	Change to 2023 (revised), % [95% interval]	Difference from dietetics to 2024, pp [95% interval]	SD of annual change 2010-2019, %
Foods, nutrition and related services (19.05)	4,444	1,956	−56.0 [−69.2, −38.5]	−52.5 [−67.1, −33.7]	9.7 [−13.3, 30.1]	7.4
Health and physical education/fitness (31.05)	39,664	47,831	20.6 [13.1, 28.8]	19.7 [12.8, 27.1]	−66.9 [−81.6, −50.9]	3.8
Allied health diagnostic, intervention and treatment (51.09), excl. athletic training	5,939	6,940	16.9 [1.1, 36.1]	17.4 [1.9, 36.2]	−63.1 [−85.1, −42.4]	3.1
51.09 excl. athletic training and physician assistant	5,429	6,629	22.1 [5.2, 43.1]	22.4 [5.7, 43.1]	−68.4 [−92.1, −46.6]	3.6
Clinical/medical laboratory science (51.10)	3,252	3,918	20.5 [−2.2, 48.8]	23.3 [2.7, 48.3]	−66.8 [−96.8, −41.1]	3.5
Public health (51.22)	9,323	17,743	90.3 [60.1, 130.3]	101.0 [71.0, 142.0]	−136.6 [−179.9, −102.7]	5.6
Health sciences, general (51.00)	9,953	19,867	99.6 [61.2, 148.7]	92.8 [56.8, 140.5]	−145.9 [−195.1, −106.8]	7.8
Nutrition sciences (30.19)	1,965	3,231	64.4 [22.4, 130.2]	72.7 [27.6, 147.0]	−110.7 [−180.0, −64.2]	12.3
All health professions (CIP 51)	203,264	252,741	24.3 [13.6, 36.9]	25.5 [15.6, 36.8]	−70.6 [−87.1, −54.0]	4.2

Family	2014	2024 (provisional)	Change to 2024, % [95% interval]	Change to 2023 (revised), % [95% interval]	Difference from dietetics to 2024, pp [95% interval]	SD of annual change 2010-2019, %
CIP 51 excl. 51.3101 and 51.0913	196,486	250,381	27.4 [16.3, 40.5]	28.4 [18.1, 40.1]	−73.7 [−90.7, −56.6]	4.1
Dietetics (51.3101), mandate field	3,096	1,663	−46.3 [−57.4, −32.8]	−38.3 [−50.5, −23.8]		10.6
Athletic training (51.0913), mandate field	3,682	697	−81.1 [−86.5, −74.8]	−74.4 [−80.2, −67.7]		8.8

Source As Table C1. Differences from athletic training's bachelor's change, and every difference on the revised 2023 endpoint, are in the deposited T05_diffs.csv.

Table C3 Where institutions hosting an accredited didactic program in dietetics report bachelor's output, 2014 and 2024

Units institutions, percent with Wilson 95 percent intervals. *Basis* the 203 programs listed as Didactic Program in Dietetics, United States, in ACEND's public accredited-program directory on September 15, 2026 (accredited or candidate for accreditation), at 203 institutions, all matched to IPEDS unit identifiers (180 by name, 19 by web domain within state, 4 by hand with the reason recorded). Two institutions whose completions moved between IPEDS units are followed across units (Arizona State University; Commonwealth University of Pennsylvania, which absorbed Mansfield University in 2022). Each institution is counted in every code group in which it reports bachelor's completions.

Bachelor's completions reported under	2014 (revised)	2024 (provisional)
Dietetics family (51.31), any code	82 (40.4% [33.9, 47.3])	92 (45.3% [38.6, 52.2])
Dietetics/dietitian (51.3101)	73 (36.0% [29.7, 42.8])	82 (40.4% [33.9, 47.3])
Foods, nutrition and related services (19.05)	68 (33.5% [27.4, 40.2])	50 (24.6% [19.2, 31.0])
19.05 and not 51.31	49 (24.1% [18.8, 30.5])	36 (17.7% [13.1, 23.6])
19.05 only (not 51.31 or 30.19)	45 (22.2% [17.0, 28.4])	30 (14.8% [10.6, 20.3])
Nutrition sciences (30.19)	44 (21.7% [16.6, 27.8])	77 (37.9% [31.5, 44.8])
30.19 and not 51.31 or 19.05	29 (14.3% [10.1, 19.8])	52 (25.6% [20.1, 32.0])
Neither 51.31, 19.05 nor 30.19	43 (21.2% [16.1, 27.3])	23 (11.3% [7.7, 16.4])

Source Author's match of the ACEND accredited-program directory (retrieved September 15, 2026) to the IPEDS 2024 and 2014 institutional directories and Completions files. The directory lists current programs only; the 2014 column describes today's didactic-program institutions as they reported in 2014. Institutions in the last row report their nutrition output under other codes, including family and consumer sciences (19.01), family and community services or human development (19.07), food science (01.10) and health and wellness (51.0001); six programs award graduate degrees only.

Table C4 CIP 19.05 bachelor's completions by the reporting institution's didactic-program status

Units bachelor's degrees conferred, first majors; percent change from 2014 with institution-clustered 95 percent intervals. *Basis* didactic-program status from the ACEND directory on September 15, 2026, applied to every year.

Institution group	2010	2014	2019	2023	2024	Change 2014-2024, %	Change 2014-2023, %
A. Hosts a didactic program; no 51.31 bachelor's in any year 2010-2024	1,748	2,170	1,737	1,035	912	−58.0 [−76.6, −36.6]	−52.3 [−72.7, −28.7]
B. Hosts a didactic program; reports 51.31 bachelor's	1,176	1,327	975	446	386		
A and B. All didactic-program institutions	2,924	3,497	2,712	1,481	1,298	−62.9 [−76.0, −46.8]	−57.6 [−72.6, −38.9]
C. Not on the directory; reports 51.31 bachelor's in some year	164	229	147	90	102		

Institution group	2010	2014	2019	2023	2024	Change 2014-2024, %	Change 2014-2023, %
D. Not on the directory; no 51.31 bachelor's in any year	572	718	653	539	556	−22.6 [−61.8, 80.3]	−24.9 [−63.6, 74.0]
C and D. Not on the directory	736	947	800	629	658	−30.5 [−63.1, 29.8]	−33.6 [−65.2, 23.9]
All institutions	3,660	4,444	3,512	2,110	1,956	−56.0 [−68.7, −40.1]	−52.5 [−66.1, −35.2]

Source As Tables C1 and C3. Shares of 2014 19.05 bachelor's completions: groups A and B 78.7 percent [64.2, 90.6], group A alone 48.8 percent [31.9, 66.1], institutions with a didactic program accredited by 2014 77.7 percent [63.1, 89.8]; share of the 2014 to 2024 fall at groups A and B 88.4 percent [68.3, 108.1]; share of 2024 completions at groups A and B 66.4 percent [47.0, 83.9]. Difference between the changes at groups A and B and at groups C and D: −32.4 percentage points [−95.5, 4.3] to 2024 and −24.0 [−85.3, 13.4] to 2023; restricting didactic-program status to programs accredited by 2014, −38.4 [−103.3, −2.1] and −32.6 [−97.7, 4.3].

Table C5 The dietetics family measure with and without CIP 19.05, all award levels

Units completions, first majors, all award levels; percent change from 2014 with institution-clustered 95 percent intervals.

Measure	2014	2024 (provisional)	Change to 2024, %	Change to 2023 (revised), %
Dietetics family (51.31), as in the Results	5,845	5,164	−11.7 [−31.4, 16.7]	−3.9 [−24.1, 25.2]
51.31 plus 19.05 at didactic-program institutions without 51.31 bachelor's (group A)	8,472	6,394	−24.5 [−39.7, −4.7]	−17.3 [−33.6, 3.1]
51.31 plus 19.05 at all didactic-program institutions	10,144	7,287	−28.2 [−41.6, −11.5]	−22.1 [−36.1, −5.2]
51.31 plus all 19.05	12,357	9,015	−27.0 [−39.3, −12.7]	−22.1 [−34.4, −7.7]
51.31 plus Nutrition Sciences (30.19), as in the Results	8,754	10,541	20.4 [2.9, 43.7]	26.4 [8.8, 50.1]
51.31 plus 30.19 plus 19.05 at all didactic-program institutions	13,053	12,664	−3.0 [−15.2, 11.5]	2.3 [−10.3, 16.9]

Source As Tables C1 and C3.

Reading. Outside nutrition, every bachelor's-heavy health-adjacent family in the panel grew from 2014 to both endpoints, and for each the 95 percent interval for its difference from dietetics' bachelor's change excludes zero; a shock common to undergraduate health-adjacent production does not appear in these series. The one family that fell with dietetics, Foods, Nutrition and Related Services (19.05), is not an untreated comparison: 78.7 percent of its 2014 bachelor's completions and 88.4 percent of its fall to 2024 were at institutions that host an accredited didactic program, and at thirty of those 203 institutions 19.05 is the only nutrition code group with bachelor's output in 2024. Two readings of 19.05 remain open because IPEDS counts majors, not accredited-program enrollment. On the first, the 19.05 completions at didactic-program institutions are mainly didactic-program graduates, and the dietetics family measure understates the fall, which lies nearer the figures including 19.05 in Table C5. On the second, many are majors in other nutrition or wellness tracks at the same institutions, and the measure excluding 19.05 is the closer one. These data do not choose between them, which is why the family measure is reported as a bracket. Neither reading supports treating 19.05 as a nutrition family that fell without a mandate: the part of it produced away from didactic-program institutions is small (about a fifth of 2014 output) and its change cannot be estimated precisely.

Limits. The directory lists programs accredited or in candidacy on September 15, 2026. ACEND reported 224 didactic programs in 2014 and 204 in 2025 (Accreditation Council for Education in Nutrition and Dietetics, 2026), and sixteen programs on the current directory were initially accredited after 2014, so at least thirty-seven programs that existed in 2014 are not on it; their institutions fall in groups C and D, which are therefore not a clean untreated set. Restricting didactic-program status to programs accredited by 2014 moves the 2014 share from 78.7 to 77.7 percent (Table C4 source note). Two branch campuses that file as separate IPEDS units, and that stopped reporting completions after 2020, account for 186 of group D's 718 bachelor's completions in 2014; their institution's main campus hosts a listed didactic program, but the branch campuses are not listed. The 2024 Completions file is provisional.

Appendix D. Annual completions series

This appendix prints the series behind every field-level figure in the report, so that each can be checked without rerunning the extraction. Construction is the one stated in Methods: IPEDS Completions, first majors, all award levels, the revised file for survey years 2010 to 2023 and the provisional file for 2024. The Standard Occupational Classification code is the occupation each field maps to under criterion 2 of the sample

definition; the four aggregates map to no single occupation. The full cell-level file, every year by six-digit code by award level and by file vintage, is deposited as `ipeds_extract_by_awlevel.csv`, with the byte count and SHA-256 of each source file in `input_manifest.csv`.

Table D1 Annual degree completions, survey years 2010 to 2024, for the thirteen fields and four aggregates, with six-digit CIP and SOC codes

Units completions, first majors, all award levels. *Basis* revised files 2010 to 2023; 2024 file provisional.

Field or aggregate	CIP	SOC	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Dietetics	51.3101	29-1031	3,161	3,418	3,511	3,759	4,316	4,585	4,871	4,693	4,048	3,739	3,676	3,778	3,673	
Athletic training	51.0913	29-9091	3,742	3,747	4,491	4,385	4,615	5,064	5,184	5,280	5,580	5,283	4,447	3,749	3,393	
Physician assistant	51.0912	29-1071	5,834	6,075	6,693	7,138	7,555	8,106	8,544	8,919	9,467	10,195	10,743	11,349	12,000	
Speech-language pathology	51.0203	29-1127	3,330	3,496	3,785	4,153	4,640	4,840	4,931	5,369	5,742	5,746	5,870	5,906	6,573	
Audiology	51.0202	29-1181	1,570	1,045	1,017	952	984	997	1,025	1,072	1,061	1,014	1,026	1,029	937	
Occupational therapy	51.2306	29-1122	5,371	5,897	6,289	6,616	6,906	7,243	7,684	8,338	8,780	9,138	9,117	9,922	10,545	
Physical therapy	51.2308	29-1123	9,354	10,118	10,204	10,632	11,004	11,594	11,884	12,327	12,389	12,865	13,135	13,653	13,773	
Orthotics and prosthetics	51.2307	29-2091	192	245	280	379	334	324	352	369	398	332	353	333	330	
Genetic counseling	51.1509	29-9092	113	122	125	130	138	140	156	147	172	193	230	288	299	
Nurse anesthesia	51.3804	29-1151	1,728	1,716	1,872	1,908	1,847	1,843	1,877	1,896	1,916	2,031	1,883	1,935	1,768	
Nurse midwifery	51.3807	29-1161	135	193	242	324	356	326	370	434	475	475	509	509	566	
Acupuncture	51.3301	29-1291	1,460	1,451	1,530	1,602	1,665	1,792	1,679	1,792	1,878	2,114	1,742	1,928	1,917	
Nurse practitioner (nursing family proxy)	51.38	29-1171	194,595	208,480	226,853	241,293	255,616	268,139	274,811	283,220	293,575	305,126	313,196	322,483	319,387	3
Nursing practice (DNP)	51.3818	n/a	1,154	1,869	2,991	2,964	4,029	4,439	4,410	5,135	5,582	6,242	7,564	7,985	8,869	
Registered nursing (undergraduate-entry contrast)	51.3801	n/a	173,554	184,904	199,163	211,381	221,779	231,190	233,287	237,860	244,100	251,160	259,400	266,574	262,902	
All health professions (CIP 51)	51 (all)	n/a	889,595	973,093	979,360	962,116	963,682	958,868	956,327	954,094	958,400	964,657	932,731	976,146	977,808	9
All fields	all codes	n/a	4,428,420	4,735,586	4,872,104	4,877,839	4,918,344	4,952,795	4,981,951	5,037,665	5,124,287	5,216,103	5,208,335	5,316,848	5,308,805	5,2

Source Author's analysis of IPEDS Completions files (C_A), survey years 2010 to 2024, first majors, retrieved from the National Center for Education Statistics on September 15, 2026. *Note* Nurse practitioner has no dedicated program code and is proxied by the nursing family total (CIP 51.38), which also contains registered nursing, nursing practice, nurse anesthesia and nurse midwifery. The all-fields row is the files' own grand-total record, one count per award; the published comparator series summed those records alongside the detail rows and so counted every award twice, which left percentage changes unaffected and is corrected here.

Table D2 Annual completions by award level, survey years 2010 to 2024, for the three fields with an in-window bachelor's-to-graduate mandate

Units completions, first majors. *Basis* revised files 2010 to 2023; 2024 file provisional. Award levels are the NCES codes given in each row.

Field	Award level	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Dietetics	Bachelor's (5)	2,433	2,588	2,565	2,682	3,096	3,292	3,477	3,307	2,739	2,347	2,308	2,244	2,288	1,910	1,663
Dietetics	Master's (7)	300	349	399	421	491	441	472	491	497	516	521	669	665	845	960

Field	Award level	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Dietetics	Doctoral (17, 18, 19)	3	3	1	1	1	6	5	2	3	4	7	3	3	6	6
Dietetics	Post-baccalaureate and post-master's certificates (6, 8)	205	215	310	397	455	588	666	632	543	634	585	608	523	329	195
Dietetics	Associate's degrees (3)	108	143	144	151	170	155	157	182	185	168	170	172	106	107	86
Dietetics	Sub-baccalaureate certificates (1, 2, 4, 20, 21)	112	120	92	107	103	103	94	79	81	70	85	82	88	107	96
Athletic training	Bachelor's (5)	2,703	2,810	3,435	3,410	3,682	3,840	3,945	3,898	4,019	3,573	2,811	2,058	1,367	944	697
Athletic training	Master's (7)	383	495	529	519	560	674	717	832	1,003	1,163	1,267	1,386	1,679	1,889	2,008
Athletic training	Doctoral (17, 18, 19)	1	0	0	1	1	4	5	40	80	76	63	74	98	97	78
Athletic training	Post-baccalaureate and post-master's certificates (6, 8)	2	0	1	0	18	9	1	1	1	4	7	2	13	19	18
Athletic training	Associate's degrees (3)	49	177	244	211	184	308	312	313	305	276	139	87	97	107	115
Athletic training	Sub-baccalaureate certificates (1, 2, 4, 20, 21)	604	265	282	244	170	229	204	196	172	191	160	142	139	183	205
Physician assistant	Bachelor's (5)	744	753	733	564	510	626	557	541	580	536	379	408	295	326	311
Physician assistant	Master's (7)	4,502	4,865	5,490	6,028	6,542	7,025	7,593	7,933	8,527	9,192	9,760	10,393	11,069	11,543	11,930
Physician assistant	Doctoral (17, 18, 19)	19	8	10	12	10	17	13	16	16	168	389	420	540	510	658
Physician assistant	Post-baccalaureate and post-master's certificates (6, 8)	199	113	117	139	79	18	6	30	32	26	25	35	24	27	27
Physician assistant	Associate's degrees (3)	91	85	73	130	165	161	131	122	77	59	54	0	0	0	0
Physician assistant	Sub-baccalaureate certificates (1, 2, 4, 20, 21)	279	251	270	265	249	259	244	277	235	214	136	93	72	72	30

Source As Table D1. *Note* The sub-baccalaureate certificate levels were recoded in 2020: code 1 was retired and codes 20 and 21 introduced, so the certificate rows span a definitional change and the degree-level rows do not.

Table D3 Completions by award level in 2014 and 2024 for the remaining ten fields and the four aggregates

Units completions, first majors. *Basis* 2014 revised file; 2024 file provisional.

Field or aggregate	Bachelor's 2014	Master's 2014	Doctoral 2014	Post-baccalaureate and post-master's certificates 2014	Associate's degrees 2014	Sub-baccalaureate certificates 2014	Bachelor's 2024	Master's 2024	Doctoral 2024	Post-baccalaureate and post-master's certificates 2024	Associate's degrees 2024	Su baccalaurea certificat 20
Speech-language pathology	1,500	2,961	25	25	61	68	1,432	5,463	109	102	30	
Audiology	253	119	611	1	0	0	172	151	653	11	0	
Occupational therapy	903	5,515	302	25	161	0	463	5,735	4,147	33	38	
Physical therapy	335	194	10,207	84	174	10	198	37	13,064	66	57	
Orthotics and prosthetics	16	115	0	69	58	76	7	233	0	0	37	1
Genetic counseling	0	138	0	0	0	0	0	375	0	3	0	
Nurse anesthesia	0	1,722	80	45	0	0	0	362	1,580	18	0	
Nurse midwifery	0	328	11	17	0	0	0	481	44	34	0	
Acupuncture	91	1,442	83	14	0	35	0	878	604	2	0	
Nurse practitioner (nursing family proxy)	119,529	35,359	3,936	1,865	89,145	5,782	153,285	48,868	13,759	6,010	85,227	4,1
Nursing practice (DNP)	807	236	1,768	95	354	769	423	527	7,783	294	133	
Registered nursing (undergraduate-entry contrast)	113,998	14,157	643	187	88,127	4,667	147,345	20,089	953	862	83,963	3,6
All health professions (CIP 51)	203,264	98,235	67,864	7,734	215,022	371,563	252,741	150,393	90,680	17,287	186,719	295,5
All fields	1,893,179	765,659	179,447	57,154	1,015,331	1,007,574	1,974,834	948,532	215,814	99,086	998,920	1,222,6

Source As Table D1. *Note* Award-level rows for these fields are printed at the two endpoints of the primary comparison window; the full annual series by award level is in the deposited extract. Rows sum to the 2014 and 2024 columns of Table D1.

Appendix E. Data sources

Every source the report draws a number from, with the vintage of the edition used and the date it was retrieved. Retrieval dates are the dates in the download logs of this report's task folders; where a source was read from an archived copy rather than a live page, or no log records the reading, the row says so. Redistribution status says what is deposited with the data record and what is only cited: public-domain federal files are deposited as extracts or as captures, and copyrighted documents are identified by vintage and retrieval date, with the SHA-256 of the archived copy in the input manifest of the deposit (`INPUT_MANIFEST_SHA256.csv`).

Source	Issuing body	Vintage or edition used	What it supplies	Retrieved	Public location	Redistribution
IPEDS Completions (C_A)	National Center for Education Statistics, U.S. Department of Education	Survey years 2000 to 2024; revised files where released, 2024 provisional (NCES posting of September 21, 2025)	Degree completions by institution, six-digit CIP code and award level; first majors	September 15, 2026	https://nces.ed.gov/ipeds/use-the-data	Public domain; not redistributed (file size). Derived extracts are deposited.
IPEDS Completions data dictionaries	National Center for Education Statistics	C2010_A, C2019_A and C2024_A dictionary releases	Award-level (AWLEVEL) code definitions and the 2020 certificate recoding	September 15, 2026	https://nces.ed.gov/ipeds/use-the-data	Public domain; deposited.

Source	Issuing body	Vintage or edition used	What it supplies	Retrieved	Public location	Redistribution
IPEDS Institutional Characteristics (HD)	National Center for Education Statistics	HD2014 (NCES posting of November 2, 2015) and HD2024 (posting of September 21, 2025)	Control, highest level of offering and listing status for the institution-level appendix	HD2024: September 15, 2026; HD2014: read from an archived copy	https://nces.ed.gov/ipeds/use-the-data	Public domain; not redistributed. A derived extract of HD2014 is deposited; for HD2024 the deposit holds the listing counts, not an extract.
Classification of Instructional Programs: 2000 edition (NCES 2002-165) and the CIP crosswalk files	National Center for Education Statistics	CIP 1990 to 2000, 2000 to 2010 and 2010 to 2020 crosswalks	Confirming that CIP 51.2306 and 51.2308 are unchanged across the three editions used in Appendix H	September 15, 2026	https://nces.ed.gov/ipeds/cipcode/	Public domain; deposited.
Occupational Employment and Wage Statistics	U.S. Bureau of Labor Statistics	National files, May 2025 (and May 2019 for the employment comparison)	Mean annual wage and its relative standard error for the thirteen detailed occupations	September 15, 2026	https://www.bls.gov/oes/tables.htm	Public domain; extract deposited.
Occupational Outlook Handbook, dietitians and nutritionists	U.S. Bureau of Labor Statistics	2025 to 2035 projections; page last modified August 27, 2026	Projected employment change and average annual openings	September 15, 2026	https://www.bls.gov/ooh/healthcare/dietitians-and-nutritionists.htm	Public domain. Read from an Internet Archive capture of September 4, 2026; the live page refused scripted retrieval.
Electronic Announcement GENERAL-26-42, update to the list of professional degree programs	Federal Student Aid, U.S. Department of Education	Posted June 29, 2026; updated July 10, 2026; interim for the duration of a preliminary stay	Which six-digit CIP codes are treated as professional degree programs	September 15, 2026	https://fsapartners.ed.gov/knowledge-center/library/electronic-announcements	Public domain; capture deposited.
Public Law 119-21, section 81001 (20 U.S.C. 1087e(a)(4), (6))	U.S. Government Publishing Office	Enacted July 4, 2025; loan provisions effective July 1, 2026	Annual and aggregate Federal Direct Unsubsidized borrowing limits inside and outside the category	September 15, 2026	https://www.govinfo.gov/content/pkg/PLAW-119publ21/	Public domain; capture deposited.
34 C.F.R. § 668.2, institutional eligibility definitions	Code of Federal Regulations	Current text as captured August 29, 2026	The ten professional degrees given as examples in the definition, used in sample criterion 4	August 29, 2026	https://www.ecfr.gov/current/title-34/part-668/section-668.2	Public domain; no capture is deposited, and no log records this reading.
College Scorecard, most recent data by field of study	U.S. Department of Education	June 10, 2026, release	Median federal debt for CIP 51.31 bachelor's and master's programs	September 15, 2026	https://collegescorecard.ed.gov/data/	Public domain; the CIP 51.31 extract is deposited.
Dietetics Education Program Statistics 2000 to 2025	Accreditation Council for Education in Nutrition and Dietetics	One-page PDF of three tables; file created March 27, 2026	Graduates, enrolled students and program counts by program type; enrolled-student composition	August 3, 2026	https://www.eatrightpro.org/acend/about-acend/acend-data	Copyrighted; values transcribed; the documents are not redistributed. Cited by vintage, with the SHA-256 of the archived copy in the input manifest.

Source	Issuing body	Vintage or edition used	What it supplies	Retrieved	Public location	Redistribution
Computer Match Trends 1993 to 2024 and the computer match results page	Accreditation Council for Education in Nutrition and Dietetics	File dated April 26, 2024; the match ended after the spring 2024 round	Applicants, positions, matched and unfilled counts on both published bases	August 3, 2026	https://www.eatrightpro.org/acend	Copyrighted; values transcribed; the documents are not redistributed. SHA-256 of the archived copy in the input manifest.
Accredited program directory, Didactic Program in Dietetics	Accreditation Council for Education in Nutrition and Dietetics	Directory as listed on September 15, 2026 (accredited or in candidacy)	The 203 didactic-program institutions matched to IPEDS for Appendix C	September 15, 2026	https://acendportal.org/Program/Accredited/Directory.aspx	Copyrighted listing. Only institutional fields are deposited; the raw pages carry program directors' names and contact details and are not deposited.
Application process for students (match retirement and its stated reason)	Accreditation Council for Education in Nutrition and Dietetics	Internet Archive captures of September 30, 2023, June 6, 2024 and November 7, 2024	The accreditor's own statements on ending the match and on what replaced it	September 15, 2026	https://www.eatrightpro.org/acend/students-and-advancing-education/application-process-for-students	Copyrighted; captures not redistributed. The live page did not load for scripted retrieval on September 15, 2026.
Registration examination statistics by eligibility pathway	Commission on Dietetic Registration	One-year summaries for the periods ending 2024 and 2025, and calendar-year first-attempt files through June 2026	First-attempt examinees by pathway for the dietitian and technician credentials; registry counts	September 15, 2026	https://www.cdrnet.org/RDExamStats	Copyrighted; values transcribed; the documents are not redistributed. SHA-256 of each archived file in the input manifest.
Graduate degree registration eligibility requirement and its FAQs	Commission on Dietetic Registration	Rule effective January 1, 2024; FAQ editions of February 2020, November 2023 and May 2024	Which candidates the rule binds, the field of the graduate degree, and the technician pathway	September 15, 2026	https://www.cdrnet.org/graduatedegree	Copyrighted; not redistributed.
Dietetics workforce capacity and demand: 2025 to 2035 projections	Mathematica, commissioned and funded by the Commission on Dietetic Registration	Published August 12, 2026	The registry-based supply projection the report's pipeline series is set beside, and the registry series in Table 6.1	September 15, 2026	https://www.cdrnet.org/	Copyrighted; not redistributed. Cited by page.
Annual examination reports, 2013-14 to 2024-25 exam years	Board of Certification for the Athletic Trainer	Reports as published for each exam year	First-time examination counts for athletic training	September 15, 2026	https://bocatc.org/	Copyrighted; values transcribed; the documents are not redistributed. SHA-256 of each archived report in the input manifest.
2025 physical therapist education programs fact sheet, aggregate program data	Commission on Accreditation in Physical Therapy Education	Updated July 13, 2026	Curricular format and weeks in program, for the Fig. M1 sequence-length note	September 15, 2026	https://www.capteonline.org/about-capte/data-and-research/aggregate-program-data	Copyrighted; not redistributed.
Standards for accreditation of graduate education programs in audiology and speech-language pathology	Council on Academic Accreditation in Audiology and Speech-Language Pathology, ASHA	Last updated and effective October 2025; 2027 standards approved July 2026	The typical four-year audiology sequence, for the Fig. M1 sequence-length note	September 15, 2026	https://caa.asha.org/reporting/standards/	Copyrighted; not redistributed.

Source	Issuing body	Vintage or edition used	What it supplies	Retrieved	Public location	Redistribution
Standards for accreditation of nurse anesthesia programs, practice doctorate	Council on Accreditation of Nurse Anesthesia Educational Programs	Approved May 21, 2025; effective January 1, 2026	The minimum 36-month doctoral sequence, for the Fig. M1 sequence-length note	September 15, 2026	https://www.coacrna.org/accreditation/	Copyrighted; not redistributed.
Matriculating Student Survey, Student Report 6	Physician Assistant Education Association	2022 survey, report published 2024	The share of matriculants reporting prior health care employment. The association's website was searched on September 15, 2026 and no later student report was found	Archived copy (SHA-256 6082115ec9e1)	https://doi.org/10.17538/sr2022.0006	Copyrighted; not redistributed.
Compensation and benefits survey of the dietetics profession: 2024 executive summary	Academy of Nutrition and Dietetics (Dosedel, 2025)	Wages as of January 1, 2024; published January 2025	The unadjusted bachelor's and master's median hourly difference, given as context only	Archived copy (SHA-256 75bc562d8986)	https://doi.org/10.1016/j.jand.2024.10.017	Copyrighted; not redistributed.

Note The IPEDS Completions and Institutional Characteristics files are public domain but too large to redistribute; the deposit names each file with its byte count and SHA-256 (`INPUT_MANIFEST_SHA256.csv`) and deposits the extracts built from them, except that for HD2024 it holds the listing counts, not an extract, so no reported quantity depends on a file a reader cannot obtain. Live pages that refused scripted retrieval were read from Internet Archive captures, and each such row says so. The professional degree list is an interim designation and Federal Student Aid states that it may change as the litigation proceeds.

Appendix F. Glossary and methods primer

- **IPEDS Completions.** The Integrated Postsecondary Education Data System's annual count of awards conferred by each institution, by program code and award level, reported by institutions to the National Center for Education Statistics. A completion is an award conferred, not a person entering practice.
- **First majors.** Each award is counted under the student's first major only, so an award with two majors is counted once.
- **CIP code.** The Classification of Instructional Programs code identifying a program's field. Six-digit codes (for example 51.3101, dietetics) nest within four-digit families (51.31) and two-digit series (51, health professions).
- **Award level.** The level of an award: sub-baccalaureate certificates, associate's degrees, bachelor's degrees, post-baccalaureate certificates, master's degrees, post-master's certificates and doctorates. The sub-baccalaureate certificate levels were recoded in 2020.
- **Provisional and revised files.** NCES first releases a provisional file for each survey year and later a revised file that incorporates institutions' corrections. The 2024 file used here is provisional.
- **Stocks and flows.** Enrollment is a stock, the students enrolled at a point in time; completions are a flow, the awards made in a year. A stock equals intake multiplied by time in program, so lengthening a program raises enrollment at constant intake and lowers completions during the transition.
- **In-window mandate.** A rule, taking effect after 2014, the base year of the primary comparison, and by 2024, that made a graduate degree the minimum entry credential where a bachelor's degree previously sufficed. A pre-window mandate took effect earlier; a doctoral escalation raised a requirement that was already at graduate level.
- **Baseline exposure.** The share of a field's 2014 completions at an award level that no longer qualifies for entry after the field's rule.
- **Institutional exit.** An institution that awarded at least five completions in a field in 2014 and none in 2024. The primary definition counts a filed zero-completion record as exit; the alternate definition counts it as continuing.
- **Conversion.** An institution with no graduate award in a field in 2014 that awards one by 2024, counted under the rule stated in the Results.
- **Permutation test.** A test that compares an observed statistic with its values over every reordering, or many random reorderings, of the data, under the null that the ordering is exchangeable.
- **Fisher exact test.** A test of association in a two-by-two table computed from every table with the same row and column totals.
- **Wilson interval.** A 95 percent interval for a proportion that behaves well for small counts and for rates near zero or one.
- **Holm adjustment.** A step-down correction that controls the chance of any false positive across a family of tests.
- **Professional degree borrowing category.** The programs whose students borrow against the higher federal graduate loan limits under Public Law 119-21, as listed by Federal Student Aid.
- **Federal-access gap.** The difference in federal loan credit available over a graduate sequence of a given length inside versus outside that category, computed from the statutory annual and aggregate limits.

Appendix G. Note on earlier public figures

Correction and reconciliation note, dated September 15, 2026. Before this report, the author published figures on the dietetics pipeline in three places: a national workforce memorandum with its web page and downloads (vitaearete.com/fnce2026), first posted on May 29, 2026; version 2.1.0 of this report's data record, issued on August 27, 2026; and an essay published on September 1, 2026 (vitaearete.substack.com/p/of-interest-to-the-readership) and copied to the author's website (vitaearete.com/insights) on September 9, 2026. Some of those figures were wrong, some were right on a different basis from the one their wording implied, and some stand. Each is set out below with the figure this report uses and the reason it changed. Posting dates for the memorandum, page and downloads are the dates of the website's recorded versions. The page and the executive summary were revised on September 15, 2026, and the page carries its own dated correction note recording what it previously said. The same figures also appeared in a briefing document and a short summary prepared in July 2026 and sent to staff at the Academy of Nutrition and Dietetics. Those two documents were not published; they are reconciled in G.4 below, and the figures below replace them.

G.1 The memorandum, web page and downloads.

Earlier text, where and when	Figure this report uses	What changed and why
"42%", initial wording. "ACEND reports enrollment in Didactic Programs in Dietetics fell from 24,423 (2014) to 14,170 (2024)" and "a 42% collapse in ACEND DPD enrollment over a decade" (memorandum, posted May 29 to June 26, 2026); "FEM-reclassification adjusted", beside the same figure (poster, posted May 29 to June 26, 2026).	Enrollment in all ACEND-accredited program types, 24,423 (2014) to 14,170 (2024), down 42.0 percent; didactic programs alone, 17,719 to 7,732, down 56.4 percent (ACEND program statistics, 2025 edition).	The 42 percent is ACEND's total across all program types, not the didactic programs, which fell further. The totals are ACEND's printed sums, which include Future Education Model graduate programs from 2020, with no adjustment. The memorandum's label was corrected on June 26, 2026.
"42%", later wordings. "total enrollment across its accredited dietetics programs fell from 24,423 (2014) to 14,170 (2024)" (memorandum, posted June 26, 2026 and still posted on September 15, 2026); "ACEND program enrollment is down 42% over a decade" (web page, posted May 29 to September 15, 2026); "has contracted 42% over the decade" (executive summary, posted June 26 to September 15, 2026); "−42%" (poster, posted May 29, 2026 and still posted on September 15, 2026).	The arithmetic stands: down 42.0 percent from 2014 to 2024, and down 41.3 percent to 14,336 in 2025 (−42.0 to −39.2 percent across base years 2013 to 2015 and end years 2024 to 2025). This report's output measures are graduates and degree completions: graduates of ACEND programs delivering didactic preparation fell 33.8 percent from 2014 to 2024 (7,491 to 4,960; −36.7 to −27.9 percent across the same neighbouring years), and IPEDS dietetics completions fell 30.4 percent (95 percent interval −35.3 to −25.1; provisional 2024 file).	Enrollment is a stock, not a flow (Appendix F): longer programs raise it at constant intake, so a 42 percent fall in enrollment is not a 42 percent fall in the number of people completing training. The page and the executive summary did not say that the figure counts every program type until both were revised on September 15, 2026.
"2,405". "Unfilled Dietetic Internship positions rose from 905 (2019) to 2,405 (2024), the first year in modern record that unfilled DI positions exceeded filled ones." (memorandum, posted May 29 to June 26, 2026); "unfilled > filled (2024)" (poster, posted May 29 to June 26, 2026); "rose from 905 (2019) to 2,405 in the 2023 computer match (combined April and November rounds: 4,202 openings minus 1,797 matched)" (memorandum, posted June 26, 2026 and still posted on September 15, 2026); "Unfilled dietetic-internship slots exceed filled for the first time in modern record." (web page, posted May 29 to September 15, 2026).	April and November rounds combined, 2023: 4,202 positions, 1,797 filled and 2,405 unfilled (positions less filled); 2019 on the same basis, 1,064 unfilled. April round alone: 905 unfilled in 2019 and 1,892 in 2023, when 1,695 were filled. On each basis 2023 is the earliest year with more unfilled than filled positions in ACEND's published series, which runs from 1993 to 2023 for the combined rounds and from 2007 to 2024 for the April round (ACEND computer match trends, file dated April 26, 2024). These are complete counts, so no interval applies.	Three corrections. The 2,405 is a 2023 count, not a 2024 one. The rise "from 905" set an April-round count against a combined-round count; like for like, the rise is 1,064 to 2,405, or 905 to 1,892. The phrase modern record is replaced by the series' published span. ACEND ended the match after the spring 2024 round, so the series is closed.
"2030". In every recorded version of the memorandum, page, executive summary, abstract and poster, the string appears only inside document titles, such as "Dietary Guidelines for Americans 2025–2030" and, in the memorandum's references, "U.S. Dietary Supplements Market 2024–2030".	No figure for 2030 appears in any recorded version (text search of every recorded version of all five documents, September 15, 2026).	Nothing to reconcile.

G.2 Data record version 2.1.0. Version 2.1.0 of the data record (https://doi.org/10.5281/zenodo.22135172, issued August 27, 2026) included a script for the permutation test of the rank correlation between each field's May 2025 mean wage and its 2014 to 2024 change in completions across the thirteen fields. That script returned p = .229. The correct two-sided value is .043: exactly 0.0425 over all 6,227,020,800 orderings, for a rank correlation of +0.58 (95 percent interval −0.01 to +0.87 by the method in Appendix A; May 2025 wages, provisional 2024 file). The script, as published on August 27, 2026, used only the first 2,000,000 orderings of a lexicographic enumeration, and in every one of them the three lowest-paid fields (Athletic training, Dietetics and Orthotics and prosthetics) kept their observed ranks for change in completions, so the reference distribution was conditioned on part of the pattern under test. Rerunning that truncated enumeration on the same inputs returns 0.2295. Version 2.2.0 (https://doi.org/10.5281/zenodo.22167152, issued August 29, 2026) replaced it with 2,000,000 uniform random orderings, which return 0.0425, within Monte Carlo error of the exact value (standard error 0.0001). The correction cuts against this report's argument rather than for it: a p-value of .229 would have given no evidence of an association between wage and change in completions across the thirteen fields, while .043 does, and the Results set out how far that association weakens when the two contracting fields are removed.

G.3 The essay of September 1, 2026. The essay reported changes in completions from 2014 to 2024, and stated the vintage of its endpoint: "the 2024 file is the provisional Fall 2024 release". That endpoint was, and on September 15, 2026, still is, the provisional file. When the National Center for Education Statistics file server was checked on September 15, 2026, the 2024 file was last modified on September 21, 2025 and no revised 2024 file or 2025 file had been posted. This report uses the same provisional file and labels it in the same way, so the differences set out below come from a change of measure or of basis, not from a revision to the underlying file.

Essay text	Figure this report uses	What changed and why
"Between 2014 and 2024, completions fell by thirty percent or more in exactly two of the thirteen." "Dietetics, down 30.4 percent, and athletic training, down 32.4 percent."	Dietetics −30.4 percent (95 percent interval −35.3 to −25.1) and athletic training −32.4 percent (−39.4 to −24.5), 2014 to 2024, provisional 2024 file. To the revised 2023 file: −23.4 (−28.9 to −17.6) and −29.8 (−37.1 to −21.7).	The point estimates stand. Both 2014 to 2024 intervals include a 30 percent fall, and the two fields cannot be ranked against each other, so "thirty percent or more" is a statement about point estimates that also depends on the base year (Appendix A). This report's claim is narrower: from the 2014 base, these were the two largest declines of the thirteen fields, with intervals clear of the next-largest.
"One other credential fell at all, acupuncture, and it fell 10.8 percent. Nothing else fell more than eleven percent."	Acupuncture −10.8 percent (−24.2 to +4.9), 2014 to 2024, provisional 2024 file. The point estimates for the other ten fields are increases, the smallest audiology at +0.3 percent.	The figure stands, but its interval includes no change, so the fall is not distinguishable from zero.
"Completions across the health professions as a whole grew 3.1 percent over the same decade"	CIP 51 at all award levels +3.1 percent (−1.4 to +7.7); degree levels only +16.5 percent (+13.1 to +19.9); 2014 to 2024, provisional 2024 file.	The figure stands. As the essay itself noted, the all-levels total spans the 2020 recoding of certificate categories, so this report uses the degree-level figure.
"The comparison is against master's-level completions, the degree level both professions moved to, which grew 53.1 percent over the same years."	2014 to 2024, provisional 2024 file: CIP 51 master's +53.1 percent (+43.7 to +63.1) and bachelor's +24.3 percent (+16.7 to +32.5); dietetics master's +95.5 percent (+63.9 to +133.2) and bachelor's −46.3 percent (−51.7 to −40.2); athletic training master's +258.6 percent (+220.9 to +300.6) and bachelor's −81.1 percent (−83.1 to −78.8).	Withdrawn as support. Master's completions in both contracting fields grew faster than the 53.1 percent benchmark, so that comparison runs against the essay's reading. The comparison that bears on the finding is at the bachelor's level, the level that no longer qualifies for entry, where the health professions grew and both fields fell.
"the accreditor's own program series, which involves no federal course coding at any point, fell 32.3 percent over the same years."	Graduates of ACEND programs delivering didactic preparation, 7,491 (2014) to 4,960 (2024), −33.8 percent (−36.7 to −27.9 percent across base years 2013 to 2015 and end years 2024 to 2025); 5,068 in 2025, −32.3 percent from 2014 (ACEND program statistics, 2025 edition).	The 32.3 percent ran from 2014 to 2025, not over the same years as the federal figures. From 2014 to 2024 the fall is 33.8 percent, so the corroboration stands.

G.4 The July 2026 task force material. A briefing document of fourteen pages and a short summary of three pages were prepared on July 29, 2026 and sent the same day to staff at the Academy of Nutrition and Dietetics. Neither was published. Both carry the 42 percent enrollment figure and the 2,405 unfilled-position figure in the wordings already reconciled in G.1, and, among the figures this appendix covers, both carry one further statement that appears nowhere in the published material.

Earlier text, where and when	Figure this report uses	What changed and why
"As of July 1, 2025". "As of July 1, 2025, the OBBBA caps federal graduate borrowing at $100,000 for programs not on the professional-degree list at 34 C.F.R. §668.2" (briefing document and summary, July 29, 2026).	The provisions apply to periods of instruction beginning on or after July 1, 2026 (Public Law 119-21, section 81001, enacted text, read September 15, 2026). Outside the professional degree category the limits are $20,500 a year and $100,000 in aggregate; inside it, $50,000 a year and $200,000 in aggregate, within a lifetime limit of $257,500.	The effective date was wrong by a year. The $100,000 aggregate figure and the category are right. A student enrolled in a program and borrowing for it on June 30, 2026, keeps the earlier limits for the lesser of three academic years or the rest of the program, so the change does not reach every borrower at once. The argument is unaffected: it turns on which category a program sits in, not on when the limits began.

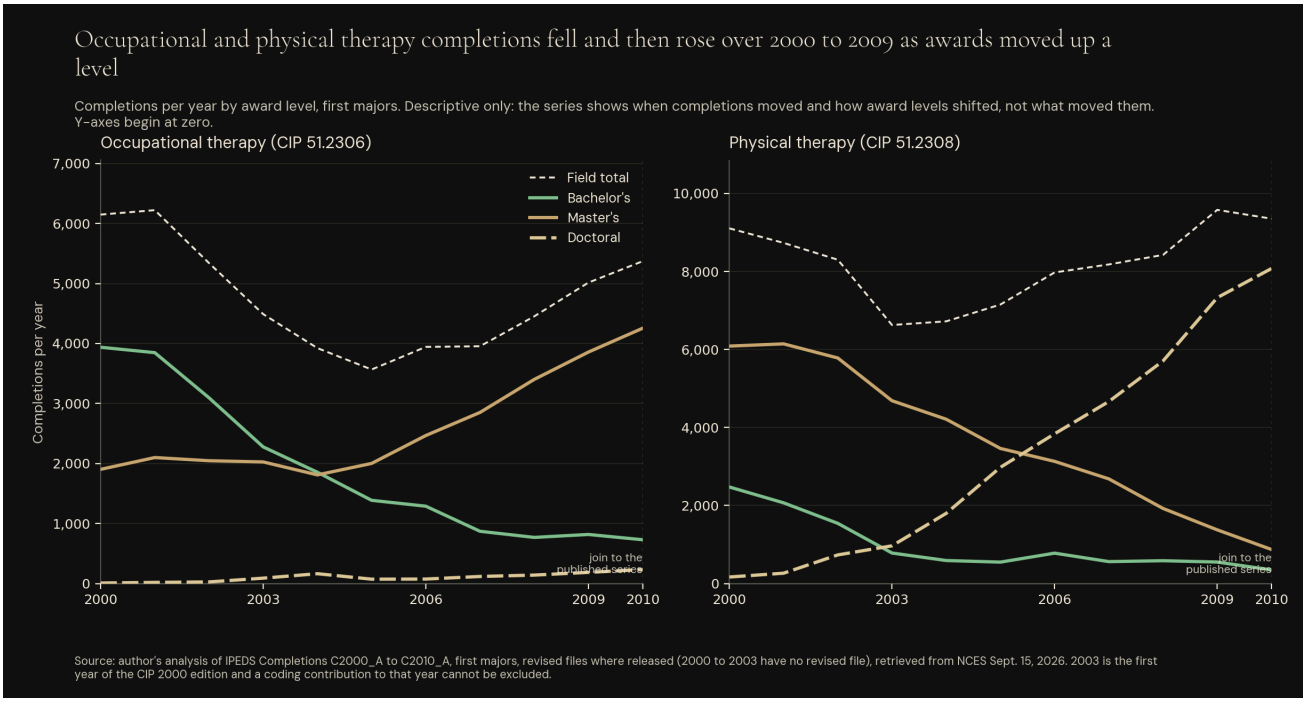
Whether the argument survives. The fall in dietetics and athletic training completions from 2014 to 2024, and their place as the two largest declines of the thirteen fields from the 2014 base, survive every change above. Five statements do not: that 2,405 unfilled internship positions was a 2024 figure; the rise "from 905", which mixed two bases; the use of the 42 percent enrollment fall as a measure of didactic programs or of people completing training; the master's-level benchmark as support; and the date on which the federal graduate borrowing limits took effect. The corrected p-value establishes an association between wage and change in completions across the thirteen fields, which works against this report's argument, and the Results treat wage as a competing explanation.

Appendix H. Occupational therapy and physical therapy completions, 2000 to 2009

This appendix extends the occupational therapy (CIP 51.2306) and physical therapy (CIP 51.2308) completions series to survey years 2000 to 2009, built as the 2010 to 2024 series is built: first majors, all award levels, from the National Center for Education Statistics IPEDS Completions files C2000_A to C2009_A (retrieved September 15, 2026), using the revised file for 2004 to 2009 and, for 2000 to 2003, the single data file in each release. The 2001 to 2003 file dictionaries define a survey year as the awards conferred from July 1 of the preceding year to June 30; survey year 2003, for example, covers July 1, 2002 to June 30, 2003. The tables describe when completions in the two fields fell and rose and how the award levels shifted; they do not test what caused either movement.

Classification and construction. Both six-digit codes are unchanged across the three editions of the Classification of Instructional Programs that these files use: CIP 1990 in 2000 to 2002, CIP 2000 in 2003 to 2009 and CIP 2010 from 2010. In the NCES CIP 1990 to CIP 2000 crosswalk (National Center for Education Statistics, 2002, Table 3, and the agency's online version of that crosswalk) and the NCES CIP 2000 to CIP 2010 and CIP 2010 to CIP 2020 crosswalk files, each code maps to itself, and a search of each crosswalk on September 15, 2026, for other codes mapping into either returned none. The edition used in each year was confirmed from the files themselves: codes that exist in CIP 1990 but not CIP 2000 appear in 2000 to 2002, and codes introduced in CIP 2000 and in CIP 2010 appear from 2003 and from 2010. Three details differ from the later files. Total completions are the sum of the grand totals for men and for women in 2000 and 2001 and the grand total in 2002 to 2007; the two measures agree on every occupational and physical therapy record in 2002 to 2007. The 2000 file does not identify second majors; in 2001 to 2009, counting second majors would add at most six completions a year to either field. Doctoral awards are reported under the older doctor's degree code through 2009 and under the three current doctoral codes from 2008, and the tables combine them. Revised and original releases differ by at most 137 completions in any year (physical therapy, 2009), and imputed values account for five completions across both fields and all ten years.

Fig. H1 Occupational therapy (CIP 51.2306) and physical therapy (CIP 51.2308) completions by award level, survey years 2000 to 2010, first majors. Both fields fell and then rose while their awards moved from the bachelor's level to the master's and doctoral levels. The panels show when completions moved and how the award levels shifted; they do not test what moved either. Survey year 2003 is the first year of the CIP 2000 edition and a coding contribution to that year cannot be excluded. Y-axes begin at zero. *Source* Author's analysis of IPEDS Completions C2000_A to C2010_A, first majors, revised files where released (2000 to 2003 have no revised file), retrieved from the National Center for Education Statistics on September 15, 2026



Occupational therapy completions fall from 6,222 in 2001 to 3,566 in 2005 and recover to 5,015 by 2009 as bachelor's awards drop from 3,847 to 817 and master's awards grow; physical therapy falls from 9,106 in 2000 to 6,628 in 2003 and reaches 9,580 in 2009 as doctoral awards rise from 166 to 7,329.

Table H1 Occupational therapy (CIP 51.2306) completions by award level, survey years 2000 to 2010. First majors. Other levels are awards below the bachelor's degree and post-degree certificates. 2010 is the join to the published series and equals it exactly. *Source* Author's analysis of IPEDS Completions, C2000_A to C2010_A, revised files where released, retrieved September 15, 2026

Survey year	Bachelor's	Master's	Doctoral	Other levels	Total	Bachelor's share
2000	3,937	1,902	8	301	6,148	64.0%
2001	3,847	2,099	18	258	6,222	61.8%
2002	3,095	2,046	26	173	5,340	58.0%
2003	2,276	2,026	89	98	4,489	50.7%
2004	1,854	1,810	163	96	3,923	47.3%
2005	1,386	2,001	72	107	3,566	38.9%
2006	1,288	2,466	74	115	3,943	32.7%
2007	870	2,851	117	116	3,954	22.0%
2008	768	3,401	140	143	4,452	17.3%
2009	817	3,857	185	156	5,015	16.3%
2010 (join)	729	4,254	233	155	5,371	13.6%

Table H2 Physical therapy (CIP 51.2308) completions by award level, survey years 2000 to 2010. Construction and source as in Table H1

Survey year	Bachelor's	Master's	Doctoral	Other levels	Total	Bachelor's share
2000	2,474	6,087	166	379	9,106	27.2%
2001	2,068	6,144	264	257	8,733	23.7%
2002	1,542	5,782	733	244	8,301	18.6%
2003	781	4,686	966	195	6,628	11.8%

Survey year	Bachelor's	Master's	Doctoral	Other levels	Total	Bachelor's share
2004	589	4,212	1,799	122	6,722	8.8%
2005	548	3,462	2,979	164	7,153	7.7%
2006	778	3,131	3,839	228	7,976	9.8%
2007	561	2,682	4,666	272	8,181	6.9%
2008	584	1,924	5,707	210	8,425	6.9%
2009	550	1,375	7,329	326	9,580	5.7%
2010 (join)	348	872	8,076	58	9,354	3.7%

Continuity at 2010. The downloaded 2010 revised file reproduces the published 2010 counts record for record (5,371 and 9,354); the 2010 to 2024 series by award level is in Appendix D. From 2009 to 2010, occupational therapy completions rose 7.1 percent and physical therapy completions fell 2.4 percent; the median absolute year-to-year change across the rest of 2000 to 2024 is 6.3 percent in occupational therapy and 3.7 percent in physical therapy. Audiology's series shows a reporting or coding discontinuity between 2010 and 2011: completions fell from 1,570 to 1,045 in one year, almost wholly at the doctoral level (1,241 to 734), and the doctoral series then held steady. Every year-to-year change from 2000 to 2024 in both fields was tested for that pattern with a rule taken from it: a change of at least 25 percent in one year, with at least 80 percent of the summed absolute changes across award levels at one level, and that level staying within 20 percent of its new value for the next three years. The rule flags audiology's 2010 to 2011 change and none of audiology's other years, and it flags neither occupational therapy nor physical therapy in any year. Of eighty combinations of the three thresholds (changes of 15 to 30 percent, concentrations of 60 to 90 percent, plateau tolerances of 10 to 30 percent), the forty-eight that flag audiology's 2010 to 2011 change and none of its other years also flag neither field.

Movements at the classification changes. Two movements coincide with a change of classification and are reported as caveats. At the 2010 recoding, physical therapy awards below the bachelor's degree fell from 216 to 38, under 3 percent of the field's total in either year; of a decline of 184 at the institutions that reduced or stopped these awards, at most 103 was at eight institutions that newly reported a physical therapist assistant or aide code at that level. In 2003, the year CIP 2000 replaced CIP 1990, physical therapy completions fell 20.2 percent (8,301 to 6,628), the largest year-to-year change in the field between 2000 and 2024. Master's awards fell by 1,096 and bachelor's awards by 761; about 91 percent of the net fall was at institutions that reported physical therapy completions in both years; master's awards kept falling in every year to 2009 while doctoral awards rose; and at most 575 of the 1,673 fewer completions can be matched to the same institutions newly reporting a related program code in 2003, at the same award level where the institution kept reporting physical therapy (codes searched: CIP series 51.23, 51.08, 51.02, 51.00, 51.99, 31.05, 26.09 and 30). Occupational therapy completions fell 15.9 percent in 2003, after falling 14.2 percent in 2002, the year before the classification changed. The files cannot rule out a coding contribution to the 2003 values in either field, and neither field shows the audiology pattern.

Appendix I. Frameworks, earlier studies and context

The main text keeps the human capital account, the one the wage comparison tests. This appendix gives the other frameworks, the two studies of athletic training's degree levels before its 2015 decision, and the dietetics pay difference by highest degree, each as context rather than as a finding of this report.

Signaling theory suggests a second channel (Spence, 1973). In Spence's model the required education level is an entrance requirement for the higher-paying job, productive for the individual while not raising his real marginal product; employers pay the premium, but raising the required level does not improve the sorting it performs and consumes real resources to clear. The cost of clearing a raised threshold falls on the entrant. Credentialist accounts reach a similar place from a different direction: Collins (2019) describes credential requirements as rising for reasons of professional standing and closure rather than of task demand, and as resistant to reversal. That last property has a bound. Occupational therapy's accreditor announced a move to doctoral entry and then did not carry it through: the profession's representative assembly voted in 2019 to retain both master's and doctoral entry, and the field is not among the in-window mandate fields here (American Occupational Therapy Association, 2019); its earlier move to post-baccalaureate entry is described in Appendix J. Mandates of this kind are not inevitable once announced, which is part of what makes the ones that do take effect worth measuring.

Who raises the requirement, and why, has been examined directly. Zusman (2017) traces the creation of new professional practice doctorates across more than a dozen fields, programs for which grew from near zero in 2000 to roughly 650 by 2015, and finds through comparative case study of three professions that professional associations and professional school administrators drove the new credentials primarily to raise the standing, autonomy and income of the profession or the institution rather than in response to labor market need, after which many programs converted from master's to doctoral awards despite the cost. Zusman's account concerns doctorates in three other fields; this study does not observe why any body in its sample raised its requirement. It stops at the point where the credential is established; what follows here is a measurement of what degree production then did, in fields where the same kind of body raised the floor to a graduate degree rather than to a doctorate.

Employer-set requirements behave differently, and the difference matters here. Modestino et al. (2020) find that posted education requirements respond to labor market slack rather than to the content of the work, but that response is cyclical rather than secular, and the same authors find it largely reverted as the labor market tightened (Modestino et al., 2016). A requirement set by an accreditor differs in exactly this respect: it does not relax when the labor market does.

Athletic training's own literature examined the two degree levels before the field's 2015 decision. Bowman et al. (2015) surveyed program directors from program lists as of January 2011 (177 of 343 bachelor's-level and 15 of 25 master's-level directors responded) and found that directors of master's-level programs reported higher mean student retention over the preceding five years (88.70 percent, 95 percent confidence interval 83.71 to 93.69, against 80.98 percent, 78.30 to 83.66) and higher placement of graduates in athletic training careers (88.50 percent, 82.33 to 94.67, against 71.32

percent, 68.54 to 74.10); these are directors' own reports, compared across programs that had chosen their degree level. Mazerolle et al. (2015), in a qualitative study of 50 students, faculty and preceptors at 14 programs, found 31 participants in favor of a move to graduate-level education, 14 opposed and 5 neutral or undecided; the reasons given for it included alignment with other health care professions and improved student retention, and the reasons against it included limited time for autonomous practice, financial concerns and a lack of evidence for the transition. Both studies were conducted before the decision, and neither measured degree production.

As context only, the 2024 Compensation and Benefits Survey of the Dietetics Profession reported that registered dietitian nutritionists whose highest degree was a bachelor's earned a median $1.00 an hour less than those whose highest degree was a master's, in any major, for wages as of January 1, 2024 (Dosedel, 2025, pp. 109, 113). The difference is unadjusted and is published without an interval, the interquartile ranges the survey shows for the two groups largely overlap (p. 117), and it rests on self-reported wages from 5,652 usable responses, a 12 percent response rate; because practitioners who choose graduate study also differ in experience, position and setting, it does not measure what the degree itself adds to pay.

Appendix J. Treatment timing, pre-window mandates and the award-level decomposition

This appendix gives the detail behind the treatment definition in Data and methods: which cohorts each rule bound, the fields that made the same move before 2014, and the decomposition of each mandate field's change by award level reported in Table 2.

The rules bound different cohorts: the physician assistant rule applied to students who first enrolled in physician assistant coursework on or after January 1, 2021, in programs accredited before 2013 that did not already confer a graduate degree (Accreditation Review Commission on Education for the Physician Assistant, 2011); the athletic training rule barred baccalaureate programs from admitting, enrolling or matriculating students into the athletic training program after the start of the fall 2022 term, and when the decision was announced in 2015 the accreditor stated that students then enrolled would not need a master's degree to be eligible for the certification examination (Commission on Accreditation of Athletic Training Education, 2015, 2022); and the dietetics rule applies to anyone seeking eligibility for the registration examination for the first time on or after January 1, 2024, while those who established eligibility on or before December 31, 2023, are not required to hold a graduate degree (Commission on Dietetic Registration, 2026). The Commission on Dietetic Registration set the 2024 date by allowing students entering a didactic program in 2014 five to six years to complete it, two years to find and complete supervised practice and two years as a cushion, and it states that the graduate degree, like the bachelor's, may be in any area: "Just as the current bachelor's degree requirement may be met in any area, the same holds for the graduate degree," provided the degree is granted by an accredited institution or a foreign equivalent (Commission on Dietetic Registration, 2023).

Pre-window mandates. The same bachelor's-to-graduate move came before the 2014 base year in several fields coded here without an in-window mandate. Occupational therapy's accreditor required post-baccalaureate entry from January 1, 2007, under a vote the accreditor took in August 1999 (Accreditation Council for Occupational Therapy Education, 2020). Physical therapy's awards had moved from the bachelor's level to the master's and doctoral levels before the observation window began (Appendix H). In nurse-midwifery a graduate degree has been required for entry to practice since 2010 (American College of Nurse-Midwives, 2022), and orthotics and prosthetics had largely left the bachelor's level by 2014, when 16 of its 334 completions were bachelor's degrees. Audiology, already graduate-entry, is a doctoral escalation, described above. Occupational therapy grew 50.8 percent in the window, from 2014 to 2024, which is what production looked like in that field a decade or more after the rule. In the IPEDS Completions files for survey years 2000 to 2009 (revised files where released), both fields fell and then rose: occupational therapy completions fell from 6,222 in 2001 to 3,566 in 2005 and reached 5,015 in 2009, while its bachelor's awards fell from 3,847 in 2001 to 817 in 2009, and physical therapy completions fell from 9,106 in 2000 to 6,628 in 2003, the year the program classification changed, and reached 9,580 in 2009, while its doctoral awards rose from 166 in 2000 to 7,329 in 2009 (Appendix H). The data cannot tell whether dietetics and athletic training are on the same path, and dietetics differs in that its rule binds candidates while its bachelor's programs stay open.

The decomposition is an identity on the counts: the change in a field's total completions from 2014 to 2024, expressed as a percentage of its 2014 total, is the sum over award-level groups of each group's change in completions divided by that 2014 total, which equals the group's 2014 share multiplied by its own rate of change. Five groups are used: bachelor's degrees; master's degrees; doctoral degrees; post-baccalaureate and post-master's certificates; and associate's degrees together with sub-baccalaureate certificates. Achieved graduate-level growth is the change in master's and doctoral completions together; flat-holding growth is the change in those completions that, with every other group at its observed 2024 count, would have left the 2024 total equal to the 2014 total. From 2014 to the provisional 2024 file, graduate-degree completions rose 96 percent (95 percent interval 37 to 199) in dietetics against the 363 percent (209 to 614) that would have held its total flat, and 272 percent (173 to 452) in athletic training against 538 percent (366 to 845); in physician assistant studies they rose 92 percent (69 to 122) against 10 percent (4 to 17) needed. Counting post-baccalaureate and post-master's certificates as graduate-level output, which in dietetics fell from 455 to 195, puts dietetics at 23 percent (−17 to 82) against 161 percent (92 to 261). Intervals here and in Table 2 are 95 percent percentile intervals from 100,000 resamples of the institutions reporting each field's program code in 2014 or 2024, which treats each institution's award mix as the unit that varies. A second approach, applying physician assistant studies' own level-specific rates of change to the 2014 award mix of the other two fields to estimate how much of each decline the mix alone implies, is not used: across the four groupings of award levels tried, it attributes between 16 and 100 percent of dietetics' decline (on the log scale) and between 42 and 82 percent of athletic training's to mix, and for the two coarsest groupings its resampling intervals run below zero and above 100 percent.

Appendix K. Audiology and the limits of the window

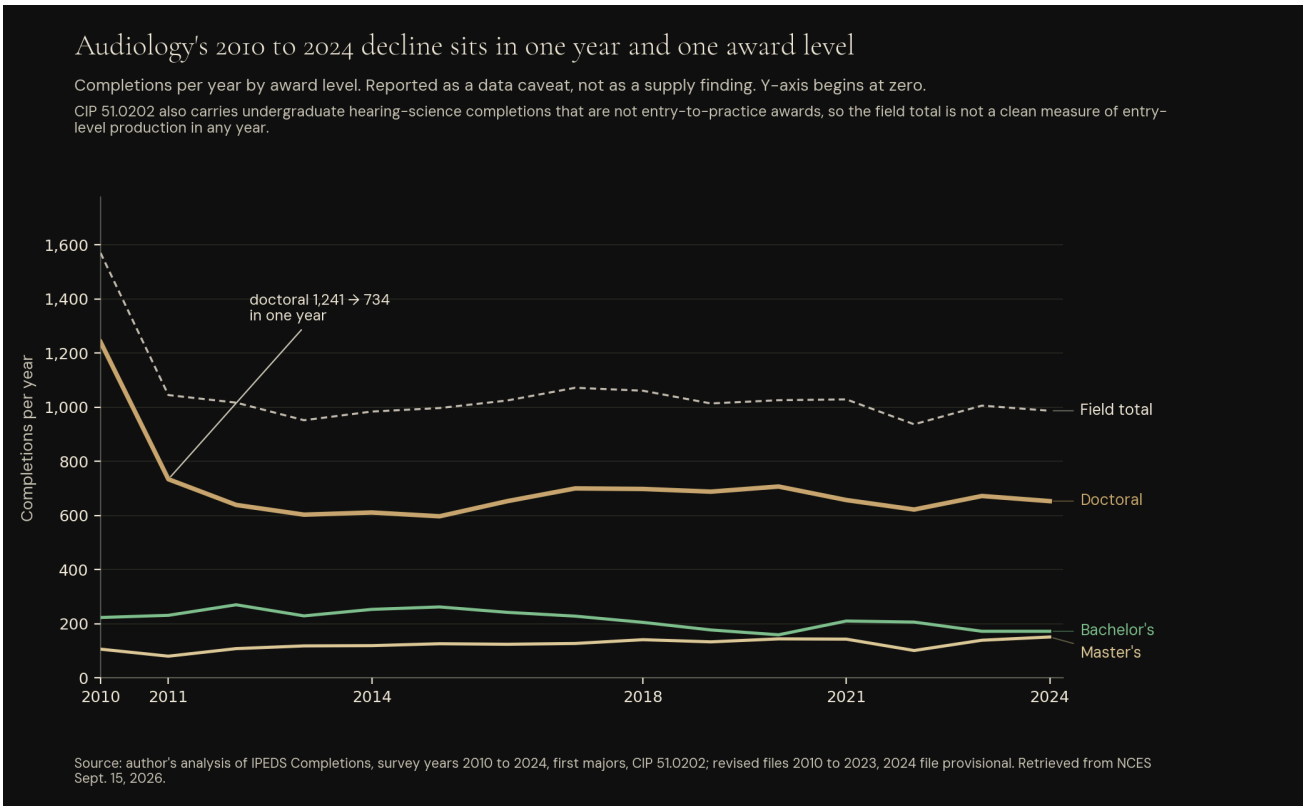
Audiology requires separate treatment: its entry-credential escalation was the largest in scope in the set, and this design cannot measure the effect. Master's programs fell from 102 in 2001 to zero by 2007 (Peterson et al., 2025). A transitional standard requiring 75 post-baccalaureate graduate semester hours took effect on January 1, 2007, still permitting a master's, doctoral or other recognized degree, and the doctorate became mandatory for certification on January 1, 2012 (American Speech-Language-Hearing Association, 2026). The first date falls before the observation window and the second two years into it, before the 2014 base year.

Within IPEDS, audiology completions fell 37.1 percent between 2010 and 2024, from 1,570 to 987, the largest decline in the set on a 2010 base. **That figure should not be read as a supply finding, and the present analysis does not treat it as one.** Three features of the series argue against it (Fig. K1). The entire decline occurs between 2010 and 2011, from 1,570 to 1,045; it is confined almost wholly to the doctoral award level, which falls from 1,241 to 734 in that single year while bachelor's and master's completions stay flat; and the doctoral series is then stable between roughly 600 and 710 for the following thirteen years, growing 6.9 percent from 2014 to 2024. A genuine one-year collapse of two-fifths in entry-level production would not restore to a stable plateau immediately and remain there. This is the signature of a reporting or coding discontinuity at the 2010 boundary. CIP 51.0202 also carries undergraduate hearing-science completions that are not entry-to-practice awards, so the field total is not a clean measure of entry-level production in any year.

This bounds the robustness claim available from these data. Against bases 2010 to 2018, dietetics is 30 percent or more below its base on four bases and athletic training on six (2024 provisional); no field without an entry-credential escalation meets the condition on any base, and audiology does so only on the 2010 base for the reason given above. The largest declines from peak are 38.3 percent in dietetics (from 2016) and 44.1 percent in athletic training (from 2018). Against 2011 to 2013 means, dietetics is 15.6 percent lower in 2024 and athletic training 25.8 percent lower, while no other field is more than 3 percent lower. Those counts describe point estimates. The 95 percent interval lies wholly beyond a 30 percent fall on two of the nine bases for dietetics (2016 and 2017) and on four for athletic training (2015 to 2018), and includes a 30 percent fall on three (2014, 2015 and 2018) and three (2012 to 2014) respectively. On degree-level completions alone the counts of bases 30 percent or more below are three and seven, and measured to the revised 2023 file they are one and four (Appendix A, Tables A2, A3 and A9). Against the 2011 to 2013 means, the intervals are 10.4 to 20.5 percent lower for dietetics and 18.9 to 32.2 percent lower for athletic training, while acupuncture's runs from 14.9 percent lower to 11.0 percent higher and overlaps dietetics' (Table A6). The National Center for Education Statistics had posted no revised 2024 Completions file when its data server was checked on September 15, 2026. Its revision of the 2023 file left both fields' counts unchanged, and across the 2010 to 2022 file pairs the largest revision to dietetics was thirty-seven completions, in 2010, with no later revision larger than six, against the 15.2 completions by which dietetics clears the 30 percent threshold on the 2014 base (Table A8).

The point belongs in the limitations rather than the findings: the largest escalation in scope in the set lies outside the observation window and is not visible in this design. The external evidence is Peterson et al. (2025), whose entry-level figures of 856 in 2000 falling to 568 in 2014 are drawn from outside IPEDS and are not subject to the discontinuity described here.

Fig. K1 Audiology completions by award level, 2010 to 2024. The 2010-to-2024 decline in this field is confined to a single year and a single award level, the doctoral series falling from 1,241 to 734 between 2010 and 2011 while bachelor's and master's completions remain flat, after which the doctoral series is stable for thirteen years. Presented as a data caveat rather than as a finding. Y-axis begins at zero. *Source* Author's analysis of IPEDS Completions, 2010 to 2024



Audiology's doctoral completions fall from 1,241 in 2010 to 734 in 2011 while bachelor's and master's completions stay flat, and the doctoral series then holds between about 600 and 710 for thirteen years, the signature of a reporting or coding discontinuity rather than a collapse in production.

Appendix L. The dietetics pipeline and entry to practice

This appendix gives the accreditor, examination and match series summarized under Field-internal corroboration and Entry to practice in the Results, with the qualifications each carries.

Why the central comparison uses federal counts

Two field-specific confounds motivate the choice of federal completions data over accreditor reporting for the central comparison. The first is consolidation. Dietetics' accreditor approved accreditation standards for a Future Education Model in August 2017, initially for demonstration programs (Accreditation Council for Education in Nutrition and Dietetics, n.d.), and that model's graduate programs deliver didactic coursework and supervised practice in one program, the design recommended in the 2013 report that preceded the graduate-degree rule (Kicklighter et al., 2013). The accreditor's tables first report these programs in 2020 and include them in every total, so movement into them does not remove students from the total. It does move students between program-type series, and a student who completes a combined program without first completing a didactic program is counted in one program where the older route counted the same student in two in turn, so several program-type series, and enrolled headcounts, can fall without any change in production. The second is duration: annual completions equal enrolled stock divided by time in program, so completions fall at constant intake when programs lengthen, and enrolled stocks equal intake multiplied by time in program, so stocks are not duration-free either. Both confounds are internal to one field's program accounting and neither touches federal completion counts in the other twelve.

Qualifications to the accreditor series

Three qualifications go with that series, each computed from the accreditor's 2000 to 2025 tables (Table 3; Fig. 3). The first is the base year. The series fell in the early 2000s, rose to peaks in 2014 and 2015 and fell after, so its decline is a fall from that peak toward earlier levels rather than below them: in 2025, didactic-program graduates were 8.7 percent below their 2000 level of 3,813 and total enrollment 6.0 percent below its 2000 level of 15,247, while graduates of the three program types that deliver didactic preparation were 14.8 percent above their 2000 level of 4,415. This report calls that three-type sum, graduates of didactic programs, coordinated programs and Future Education Model graduate programs, didactic-stage output; dietetic internship graduates are left out of it because internship entrants have already completed didactic preparation and would be counted a second time. On the base year of the federal counts, didactic-stage output fell 32.3 percent, from 7,491 in 2014 to 5,068 in 2025, and 33.8 percent to 4,960 in 2024, the federal endpoint; across base years 2013 to 2015 and endpoints 2024 and 2025 the fall runs from 27.9 to 36.7 percent. The tables do not state how a year is defined, so their years align with the federal academic years only approximately. The 1.2 percent rise in total enrollment in 2025 is inside the series' ordinary annual movement before 2014 (standard deviation of annual changes 3.9 percent, 2001 to 2014) and is not read as a turn.

The second is that enrollment is a stock, not a flow. Didactic-program enrollment fell 56.3 percent from 2014 (17,719) to 2025 (7,748). That fall is the product of two parts: didactic-program graduates fell 47.1 percent (6,578 to 3,480), and the ratio of enrolled students to graduates fell 17.3 percent (2.69 to 2.23). The ratio equals time in program only when intake is steady and no students leave; with program length unchanged it runs above that length while intake grows and below it while intake falls, so the turn from growth before 2014 to contraction after lowers the ratio by itself, and its fall is not read as shorter programs. Graduates, not enrollment, are the output measure in this section.

The third is overlap. Coordinated-program and Future Education Model graduates are counted in didactic-stage output and again in the supervised-practice series under Entry to practice: 1,588 graduates in 2025 (551 coordinated, 1,037 Future Education Model), 31.3 percent of didactic-stage output that year, against 913 in 2014, so the two accreditor series are not independent. A didactic-program graduate who later completes a Future Education Model program is counted twice in didactic-stage output, in different years. The tables do not report how often that happens; to the extent it does, it inflates the years from 2020, when Future Education Model graduates first appear in the tables, relative to 2014, and so understates the decline in the number of people completing didactic preparation.

In the opposite direction, supervised-practice enrollment was essentially unchanged from 2019 (6,354) to 2025 (6,359) while completions fell 27.5 percent, with implied time in program rising from 1.30 to 1.80 years. The sequence lengthened, and the flows and stocks reported here carry that adjustment explicitly.

Movement before a rule binds can come from programs as well as students: the accreditor's tables show 224 accredited didactic programs in 2014 and 210 in 2023, the year before the requirement's effective date, 6.3 percent fewer (204, or 8.9 percent fewer, by 2025), while enrollment in those programs fell 53.2 percent over the same years, from 17,719 to 8,297 (56.3 percent, to 7,748, by 2025), and average enrollment per program fell from seventy-nine students to forty (thirty-eight by 2025), so most of the contraction is in enrollment per program rather than in the number of programs, and enrollment per program reflects program decisions as well as student ones. Enrollment counts students enrolled rather than new entrants, so it reflects time in program as well as admissions; on a logarithmic scale, about nine-tenths of the fall in didactic enrollment is in enrollment per program and one-tenth in the number of programs, over 2014 to 2023 and over 2014 to 2025 alike.

Entry to practice

Degree completions are one step removed from entry to the credential. Three closer series exist for dietetics, and each measures something different.

The accreditor's tables also count graduates of the three program types that include supervised practice: dietetic internships, coordinated programs and Future Education Model graduate programs. Dietetic technician programs, which lead to the technician credential, are excluded, and the tables carry no separate row for individualized supervised practice pathways. Summed, supervised-practice graduates numbered 4,870 in 2019 and 3,533 in 2025, 27.5 percent fewer (24.8 to 30.2 percent across base years 2018 to 2020 and endpoints 2024 and 2025), while enrollment in the same programs was 6,354 in 2019 and 6,359 in 2025 (Table 3; accreditor tables, 2000 to 2025 edition). Most of the fall came in one year: graduates went from 4,498 in 2023 to 3,419 in 2024, 24.0 percent fewer, against a standard deviation of annual changes of 3.0 percent over 2001 to 2014, as dietetic internship graduates fell from 3,209 to 2,097. That is the year the graduate-degree requirement took effect; these tables cannot show whether the requirement,

program conversions or other changes produced the drop. The ratio of enrollment to graduates rose from 1.30 in 2019 to 1.80 in 2025, the implied time in program given above, but it is not a measured duration: Future Education Model enrollment was still growing, by 12.3 percent in 2025, which raises the ratio by itself, and the dietetic internship ratio alone rose from 1.07 to 1.42. Depending on the order of the decomposition, 31 to 51 percent of the rise comes from the change in the mix of program types, mainly the growth of Future Education Model programs, and the rest from higher ratios within program types. Coordinated and Future Education Model graduates, 1,588 of the 3,533 in 2025, are also counted in didactic-stage output, so this series and that one overlap.

The dietetic internship computer match is a closed series. It paired graduates of didactic programs with dietetic internships each spring and fall. ACEND's page on the application process stated in June 2024 that the match "was discontinued after the spring 2024 match," and by November 2024 it described the process that replaced it, a centralized application service with a code of conduct and traffic rules, as updated "to ensure an equitable process among all supervised practice programs." Before the change, the same page stated that coordinated programs and Future Education Model graduate programs did not take part in the match (Accreditation Council for Education in Nutrition and Dietetics, Application process for students, Internet Archive captures of September 30, 2023, June 6, 2024 and November 7, 2024; the live page did not load for scripted retrieval on September 15, 2026). ACEND published match results on two bases that count different rounds, and they are kept apart here (Fig. L1). On the April first-round basis, 50.2 percent of April applicants were matched or preselected in 2015 (50 to 56 percent from 2013 to 2017). In the April 2019 round, 2,764 of 3,669 internship positions were filled and 905 were not; in the April 2023 round, 1,695 were filled and 1,892 were not; and in the April 2024 round, the last, 1,410 of 3,209 were filled and 1,799 were not, while 86 percent of that round's 1,647 applicants were placed. April-round applicants fell 60.8 percent from 2019 to 2024, from 4,201 to 1,647, while April-round positions fell 12.5 percent, and April-round preselected placements rose from 199 to 325 (5 and 20 percent of April applicants). On the basis combining the April and November rounds, which ACEND published through 2023, 49.0 percent of combined-round applicants were matched in 2015 (47 to 55 percent from 2013 to 2017), and combined-round positions left unfilled, derived as openings less matched, rose from 1,064 of 4,108 in 2019 to 2,405 of 4,202 in 2023, when 1,797 were filled. On each basis, unfilled positions first outnumbered filled ones in 2023. The counts include preselected placements, treat positions filled after the match date as unfilled, and do not state whether an applicant who entered both rounds is counted twice; the April table's unfilled column also disagrees with openings less matched in 2008, 2010 and 2011, years not used here. The inversion is consistent both with a fall in applicants and with a change in how internship places were filled before the match ended, and these tables cannot separate the two, so the series is a record of the match rather than a measure of supply.

The Commission on Dietetic Registration publishes registration examination counts by eligibility pathway in two forms that count different groups (Commission on Dietetic Registration, RD and DTR exam pass and fail statistics pages and the summaries linked from them, retrieved September 15, 2026, with earlier summaries read from Internet Archive captures of the same pages). Its one-year summary for the "period ending 2025" (data as of January 29, 2026) lists 3,411 examinees: 2,016 from dietetic internships, 725 from Future Education Model graduate programs, 530 from coordinated programs, 76 from individualized supervised practice pathways, 23 through foreign equivalency and 41 through reciprocity agreements. Those counts match CDR's first-attempt counts for calendar 2024 to within 1.1 percent in each of the three program pathways (2,026, 726 and 536; 3,432 in all), and the summary for the period ending 2024 matches calendar 2023 to within 1.3 percent, so the one-year files appear to follow candidates whose first attempt came in the preceding calendar year; the files do not define the period. Counted by calendar year of first attempt, candidates from the three program pathways numbered 4,689 in 2023, 3,288 in 2024 and 3,633 in 2025, and all first attempts 4,886, 3,432 and 3,709. First attempts from the program pathways fell 29.9 percent in 2024, the year the graduate-degree requirement took effect and supervised-practice graduates fell, and rose 10.5 percent in 2025, still 22.5 percent below 2023; these counts cannot show what produced either movement. The first half of 2026 is close to the same months of 2025: 1,350 first attempts from the program pathways from January to June 2026, against 1,314 in the same months of 2025, 1,509 in 2024 and 1,799 in 2023. Within the totals, graduate program first attempts rose from 527 in 2023 to 992 in 2025 while dietetic internship first attempts fell from 3,420 to 2,082. These are complete counts of examinations, not samples, so no sampling interval applies, and three full calendar years are too few to show how much the count ordinarily moves from year to year. The pathway names are CDR's; its May 2024 answers to frequently asked questions state that the didactic and supervised practice requirements (coordinated program, dietetic internship, graduate program or individualized supervised practice pathway) and the foreign degree equivalency requirement remain in effect under the graduate-degree rule (Commission on Dietetic Registration, 2024). One inconsistency in CDR's files matters to anyone reusing them: the summary page of the July to December 2024 file repeats the January to June graduate program row (246 first attempts), while the detailed table in the same file gives 480, which is used here.

For athletic training, the Board of Certification's annual exam reports, retrieved on September 15, 2026, count first-time examinations, those taken by candidates who had never sat any form of the exam (Board of Certification, exam reports for the 2013-14 to 2024-25 exam years). First-time examinations numbered 3,768 in the 2014-15 exam year, peaked at 4,119 in 2016-17 and numbered 2,256 in 2024-25, 40.1 percent below 2014-15 (37.9 to 44.4 percent across base years 2013-14 to 2015-16 and endpoints 2023-24 and 2024-25). They fell 22.4 percent in 2020-21, when the first exam window was cancelled during the pandemic, and fell again in each of the four exam years after. The reports include paper-and-pencil accommodation administrations from 2018-19 and not before, between two and nine candidates a year where a report states the number, and the 2022-23 report's text gives 2,654 first-time examinations for 2021-22 where its own table and the other reports give 2,625, which is used here. These are counts of candidates sitting a national examination, not of accredited program graduates.

These counts are not projections. The national projections commissioned by the Commission on Dietetic Registration (Gellar et al., 2026) take the credential registry as their supply base and project it forward at its 2020 to 2025 compound growth rate without estimating entrants and exits separately (pp. 8–9), so the series above can be set beside those projections rather than substituted for them.

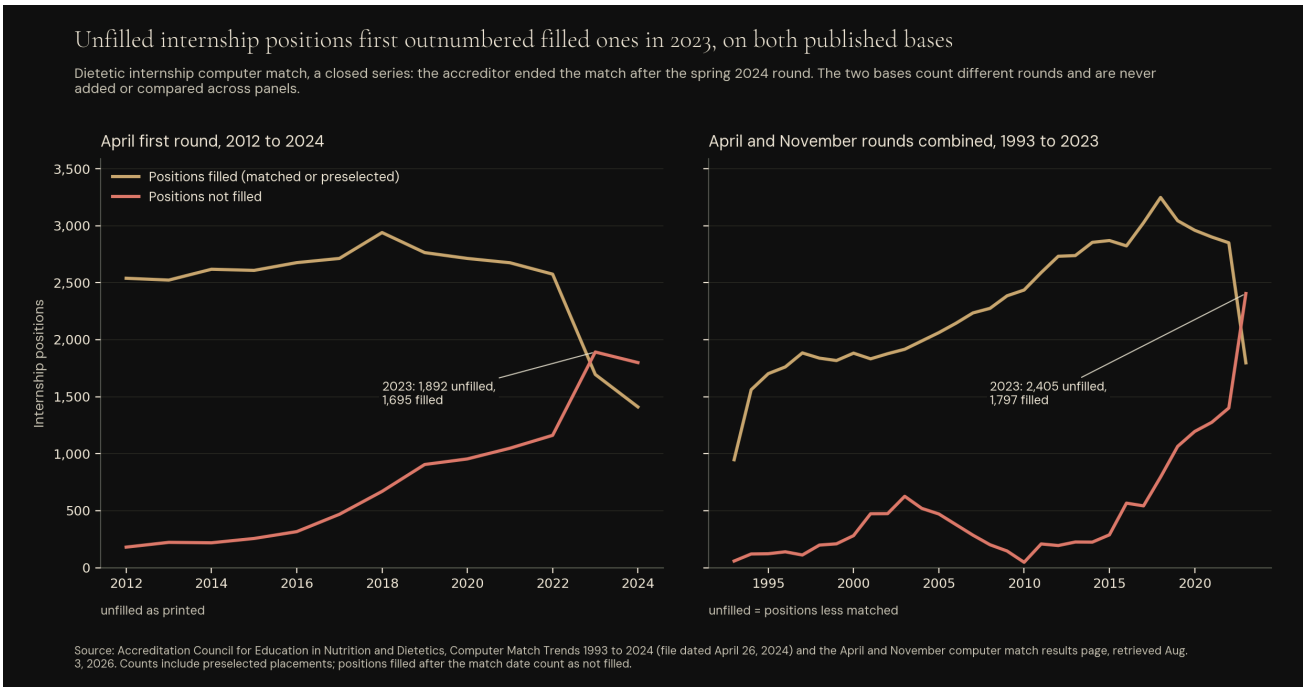
Pipeline composition. The accreditor's tables also count enrolled students, across all accredited program types, by gender and by race and ethnicity (Accreditation Council for Education in Nutrition and Dietetics, 2026). Women were 86.9 percent of the 14,336 students enrolled in 2025 and 87.4 percent of 24,423 in 2014; the gender table has no row for students whose gender was not reported, and from 2020 it adds an other or non-binary row (180 students in 2025). The race and ethnicity table carries a row for students whose race or ethnicity could not be reported, and that row more than doubled in the final year, from 912 students in 2024 (6.3 percent of enrollment) to 1,938 in 2025 (13.5 percent), against 1,236 (5.1 percent) in 2014.

Counts fell in the three largest groups from 2014 to 2025: White, not Hispanic, from 17,055 to 7,682 (55.0 percent fewer), Black or African American from 1,454 to 791 (45.6 percent fewer) and Hispanic or Latino of any race from 2,741 to 1,990 (27.4 percent fewer). Among students whose race or ethnicity was reported (all but 5.1 percent in 2014 and 13.5 percent in 2025), the White share fell from 73.6 to 62.0 percent, the Hispanic share rose from 11.8 to 16.1 percent, and the Black share was 6.3 percent in 2014 and 6.4 percent in 2025. Those shares assume the students not reported resemble those reported. At the other extreme, if all 1,938 students not reported in 2025 belonged to one group, the Black share could have been as high as 19.0 percent and the Hispanic share 27.4 percent, and the 2014 to 2025 change in Black enrollment could lie anywhere from a fall of 70.6 percent to a rise of 87.7 percent (Hispanic enrollment, from a fall of 50.0 percent to a rise of 43.3 percent); only the fall in White, not Hispanic enrollment, 43.6 to 58.0 percent at the extremes, holds whatever the non-response contains. Two further limits apply. In 2020 the table separated Asian from Native Hawaiian and Other Pacific Islander students and added a row for two or more races, which can draw students from every other row, so any comparison across 2020 carries that break; American Indian and Alaska Native enrollment, for example, went from 102 in 2019 to 319 in 2020. And these are enrolled students rather than graduates, so they do not measure the change in graduates' composition that Herring et al. (2024) documented after the physician assistant transition.

The technician pathway. The nutrition and dietetics technician, registered credential sits outside the graduate-degree rule: CDR's answers on the rule state that it did not raise technician eligibility to a baccalaureate minimum (Commission on Dietetic Registration, 2023). Its flow is small. CDR's technician examination files list 238 examinees in the one-year summary for the period ending 2025, 194 through the pathway CDR labels didactic program in dietetics and 44 from dietetic technician programs, and count 288 first attempts in calendar 2023, 272 in 2024 and 267 in 2025; from January to June 2026 there were 128, of which 105 were by bachelor's graduates of didactic programs and 23 came from technician programs, against 1,379 first attempts at the dietitian examination in the same months. The registry held 3,215 technician credentials and 114,391 dietitian credentials on September 28, 2026 (Commission on Dietetic Registration, registry statistics, retrieved September 29, 2026), so technicians were 2.8 percent of the dietitian count. In the registry series behind the CDR-commissioned projections, technician credentials fell from 4,916 in 2020 to 3,260 in 2025, 7.9 percent a year, while dietitian credentials grew 1.3 percent a year (Gellar et al., 2026). None of the CDR files read for this report, retrieved September 15, 2026, shows how many technicians later sit the dietitian examination, so the size of that route is not known from them. In an adjacent field, 96.1 percent of respondents to the Physician Assistant Education Association's 2022 Matriculating Student Survey reported prior health care employment (Physician Assistant Education Association, 2024); a search of the association's website on September 15, 2026, found no later student report.

Reconciling growing employment with a contracting pipeline. Employment in the dietitians and nutritionists occupation rose 14.6 percent from May 2019 to May 2025, from 67,670 to 77,570 (95 percent interval 9.1 to 20.2 percent, from the published relative standard errors of the two estimates; U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2019 and May 2025). The Bureau's Occupational Outlook Handbook projects employment in the occupation to grow 8 percent from 2025 to 2035, from 86,300 to 93,000, with about 5,700 openings a year on average, many of them to replace workers who move to other occupations or leave the labor force (U.S. Bureau of Labor Statistics, Occupational Outlook Handbook, 2025 to 2035 projections, page last modified August 27, 2026, read from an Internet Archive capture of September 4, 2026, because the live page refused scripted retrieval). Its 2025 base exceeds the survey estimate partly because it counts self-employed workers, 9 percent of those jobs, whom the wage survey excludes. A growing stock and a shrinking inflow are compatible, for three reasons these data show but cannot apportion. Entrants are a small fraction of the stock: 3,709 first attempts at the dietitian examination in 2025 against 114,391 dietitian credentials in September 2026, so a fall in entrants slows the registry's growth gradually, and in the registry counts behind the CDR-commissioned projections annual growth slowed in each year from 1.9 percent in 2021 to 0.3 percent in 2025 (calculated here from Gellar et al., 2026, Table 6.1), while the projections carry forward the 2020 to 2025 average of 1.3 percent. The occupation and the credential are different populations: the occupation includes nutritionists who hold no dietitian credential, and credential holders may work in other occupations or not at all, which is consistent with the registry count exceeding occupational employment. And the pipeline leads the workforce by the length of supervised practice and the examination, so a fall in completions or first attempts reaches employment only after a lag. Because openings are jobs in an occupation and first attempts are people seeking a credential, setting 5,700 openings a year beside 3,709 first attempts does not measure a shortfall.

Fig. L1 Dietetic internship computer match, a closed series (the accreditor ended the match after the spring 2024 round). Left: April first round, 2012 to 2024, unfilled as printed. Right: April and November rounds combined, 1993 to 2023, unfilled derived as positions less matched. Filled counts include preselected placements; positions filled after the match date count as unfilled. The two bases count different rounds and are not compared across panels. *Source* Accreditation Council for Education in Nutrition and Dietetics, *Computer match trends 1993–2024* (file dated April 26, 2024) and the April and November computer match results page, retrieved August 3, 2026



In the April round, unfilled internship positions rose from about 200 in 2012 to 1,892 in 2023 and passed the 1,695 filled; across the April and November rounds combined, unfilled positions reached 2,405 in 2023 against 1,797 filled.

Appendix M. The federal professional degree borrowing category

This appendix answers a supplementary, descriptive question: where do the thirteen fields fall relative to the federal professional degree borrowing category, and what federal borrowing difference does that placement produce? It locates each field against the federal professional degree borrowing category on the interim list in force as of September 29, 2026, published under a court stay, which sets a two-year federal borrowing difference of $59,000 between fields inside and outside it. The $59,000 gap is a difference in federal borrowing capacity, not a measure of what students borrow or owe. Reports 6 and 7 of this series examine the category and the rulemaking behind it.

Prior research on federal borrowing limits

Work on federal loan policy establishes that changes to statutory borrowing limits change how much students borrow and from which lenders, though that evidence comes from undergraduate limits. Denning and Jones (2021) find that access to a higher annual limit raised borrowing for at least a quarter of borrowers while leaving grade point average, credits, persistence and graduation unchanged. Lee et al. (2020) find that an increase in Stafford limits did not raise aggregate borrowing at all, because students substituted federal dollars for private and parent borrowing. Neither examines graduate limits. The graduate evidence comes from the 2006 removal of the cap: Black et al. (2023) find that uncapped Grad PLUS borrowing raised federal borrowing and shifted it from private to federal lenders without improving access or completion, and raised prices in the programs most exposed; Kelchen (2020) finds little price response in medical and business schools. This literature frames the placement question in this appendix as one about the composition and price of available credit rather than about student demand. Other studies of the 2006 change qualify these findings. Bhole (2017) finds that graduate students replaced private loans with Grad PLUS loans nearly one for one but did not borrow more in total, so the evidence on whether total borrowing rose is mixed; Denning and Turner (2023) find no effect on underrepresented students' access to high-earnings graduate programs; and Kelchen (2019) finds only modest relationships between the change and law school tuition and debt. The research this search located on the limits set by Public Law 119-21, in force since July 1, 2026, is descriptive. Turner (2026) finds that in physical therapy, social work and counseling psychology, program earnings do not rise with the share of borrowers above the $20,500 graduate annual limit, which leaves private lenders little program-level basis for pricing risk; that analysis treats physical therapy under the graduate limit, as the Department's rule did before the June 24, 2026, court order placed it on the interim professional list. Field studies tabulate costs of attendance above the new annual limits in pharmacy (Chisholm-Burns & Spivey, 2026) and graduate accounting (Bernhardt, 2026), survey physician assistant students and practitioners in January 2026 about a $20,500 annual limit (Snyder et al., 2026), and describe educational debt across nursing careers (Muench et al., 2026); a survey of applicants to health professions programs for 2025-26 reports funding gaps, reliance on private loans, especially in dentistry, and shifts in career and enrollment choices (Chuck, 2026). These studies were identified by a search run on September 15, 2026, of ERIC, OpenAlex, Crossref, Semantic Scholar and the NBER working paper series, using five query sets (Grad PLUS; graduate and professional loan limits; the Bennett hypothesis in graduate and professional education; the 2025 act's graduate limits; graduate borrowing and credit constraints) and forward citations of Black et al. (2023) and both Kelchen studies. Of 1,127 unique records, 87 met a stated keyword rule and were screened by title and abstract; the search log and screening decisions are deposited with this report. None of the screened studies of the 2025 limits estimates their causal effect on enrollment, borrowing or prices. RePEc, SSRN and Google Scholar did not return results to scripted queries and were not searched.

Measures

Membership in the federal professional degree borrowing category was read from Federal Student Aid's interim list published after the June 24, 2026, court order and updated July 10, 2026 (U.S. Department of Education, Federal Student Aid, 2026), checked as in force on September 29, 2026, when the announcement carried no revision after July 10, 2026 and both challenges to the rule were open on the court record. The **federal-access gap** is the difference in federal credit available over a sequence of given length inside versus outside the category, computed from the statutory annual limits set by the reconciliation act of July 4, 2025 (Public Law 119-21, 2025). Over two years it is $100,000 less $41,000.

For scale only, a stipulated principal of $161,000, explicitly not an estimate of what students in any field borrow, is used to show how a two-year sequence outside the category divides between federal and private credit. Wages are each field's May 2025 national mean annual wage (U.S. Bureau of Labor Statistics, 2026). The federal-access gap depends on the statutory limits alone, not on any assumed principal, interest rate, tax treatment or living-cost budget.

Placement of the thirteen fields

Seven of the thirteen fields are enumerated by name on Federal Student Aid's interim professional degree list and borrow against a $200,000 aggregate federal limit rather than $100,000. Two more, nurse practitioner and nurse midwifery, fall inside under a July 10, 2026, provision extending the nursing entries to programs in the same four-digit code awarding the same credential; the strict enumerated-only reading moves both outside. No dietetics or nutrition program code appears under either reading. That dietetics sits outside the category while several of the credentials it is compared against sit inside was noted in two earlier commentaries by the author (Fee, 2026a, 2026b); what follows is its systematic placement across the thirteen fields and the quantification of the resulting difference in federal credit.

Membership is loosely associated with pay: the included nine average $125,886 against $88,128 for the excluded four, and in 29 of 36 cross-group comparisons the better-paid field is the included one. What the association does not explain is the boundary's anomaly at its lower end (Fig. M1). Ranked by wage, the excluded four occupy positions 2, 3, 4 and 8 of 13, while position 1, the lowest-paid field in the set, is inside. Athletic training, at a May 2025 mean of $66,620, borrows against the professional degree limits; dietetics, at $77,130, does not. The definition at 34 C.F.R. § 668.2 also states that professional licensure is generally required, which cannot draw the boundary alone either, since unlicensed fields such as divinity sit among the definition's examples while the licensed athletic training credential required enumeration to enter.

The federal-access gap. For a two-year sequence the aggregate caps are unreachable and the annual limits bind: a candidate inside the category can draw $100,000 in federal credit and one outside it $41,000. The gap is $59,000. College Scorecard reports median debt for dietetics programs (CIP 51.31, June 2026 release) at $24,497 across the sixty bachelor's programs reporting debt disbursed at all institutions and $36,854 across the twenty master's programs reporting debt disbursed at the reporting institution only; master's debt is suppressed on the all-institutions measure at every institution in the field, and on the same reporting-institution measure the bachelor's median is $22,438 across fifty-eight programs (U.S. Department of Education, 2026). Measured against the master's figure, which is the level to which the mandate moves students, the gap is roughly 1.6 times the median, across the twenty reporting master's programs, of federal debt disbursed at the program's own institution to students who completed in 2018-19 and 2019-20, a figure measured before the limits that apply from July 1, 2026 and including Grad PLUS borrowing. It grows with sequence length, reaching $88,500 over three years and a maximum of $118,000 over four, where the $200,000 aggregate cap begins to bind inside the category. The balance above the federal maximum falls to private credit, which carries no income-contingent option and no forgiveness pathway. The two fields whose production contracted most therefore enter the post-2026 regime on opposite sides of the category: the lower-paid one with $100,000 of federal access, dietetics with $41,000.

Table M1 sets the two readings of category membership side by side, with the wage statistics under each and the federal credit available over two, three and four years.

Table M1 Placement of the thirteen fields in the federal professional degree borrowing category under two readings of the interim list, with May 2025 wage statistics for each group, and federal credit available by sequence length inside and outside the category

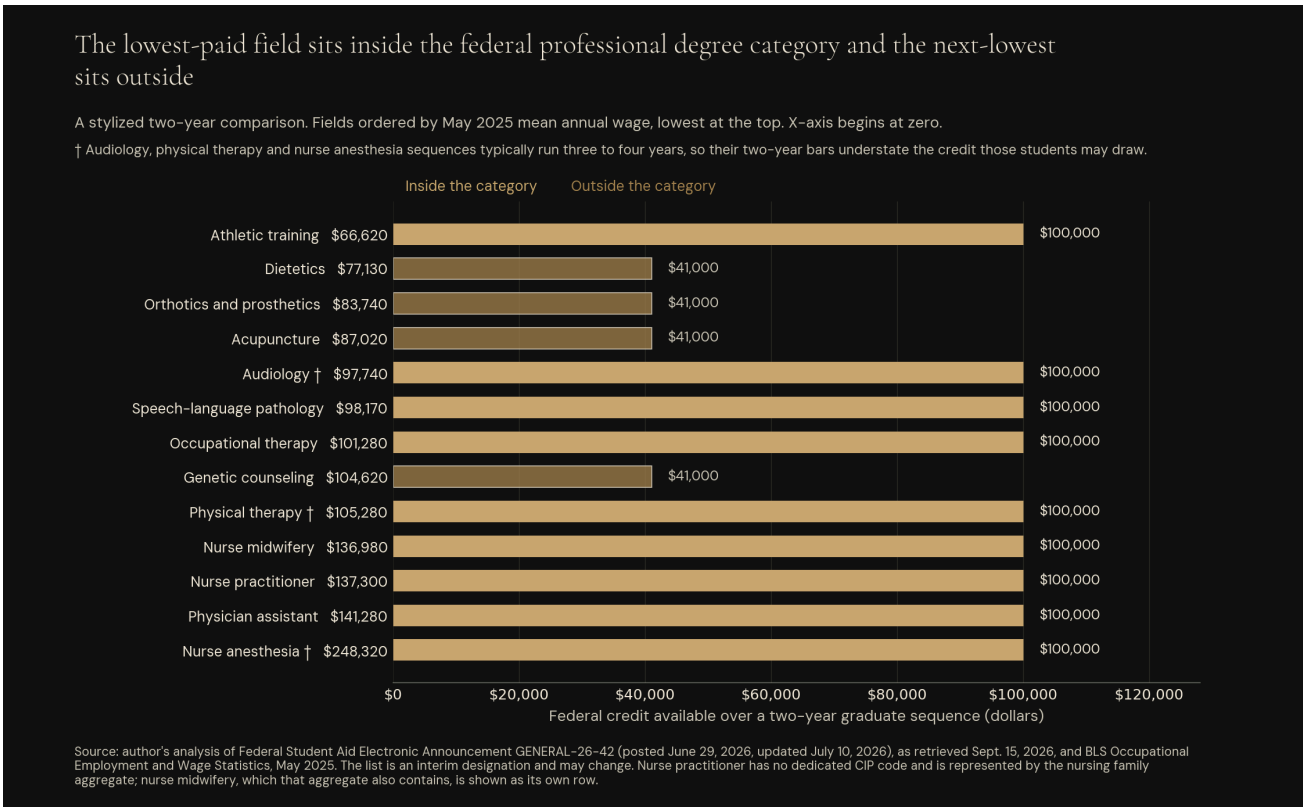
	Extended reading (used in the text)	Strict reading (codes listed by name only)
Inside the category	9: nurse anesthesia, physician assistant, nurse practitioner, nurse midwifery, physical therapy, occupational therapy, speech-language pathology, audiology, athletic training	7: nurse anesthesia, physician assistant, physical therapy, occupational therapy, speech-language pathology, audiology, athletic training
Outside the category	4: genetic counseling, acupuncture, orthotics and prosthetics, dietetics	6: nurse practitioner, nurse midwifery, genetic counseling, acupuncture, orthotics and prosthetics, dietetics
Mean of occupation mean annual wages, May 2025, inside / outside	$125,886 / $88,128	$122,670 / $104,465
Replicate standard deviation of those means (OEWS sampling error), inside / outside	$531 / $1,296	$654 / $899
Difference in means (exact permutation *p*)	$37,758 ($p = .18$)	$18,205 ($p = .61$)
Cross-group pairs in which the inside field is better paid	29 of 36	25 of 42
Share of wage replicates giving each count	29 of 36 in 66.5 percent; 28 of 36 in 31.5 percent	25 of 42 in 66.1 percent; 24 of 42 in 31.8 percent
Probability a random inside field is better paid than a random outside field (approximate 95 percent interval)	0.81 (0.56 to 1.00)	0.60 (0.28 to 0.91)
Wage ranks of the outside fields (1 = lowest of 13)	2, 3, 4, 8	2, 3, 4, 8, 10, 11
Exact rank-sum *p*, two-sided (range across wage replicates)	.11 (.11 to .15)	.63 (.63 to .73)

	Extended reading (used in the text)	Strict reading (codes listed by name only)
Lowest-paid field (athletic training) / next-lowest (dietetics)	inside / outside	inside / outside

Sequence length	Federal credit inside the category	Federal credit outside the category	Federal-access gap
2 years	$100,000	$41,000	$59,000
3 years	$150,000	$61,500	$88,500
4 years	$200,000	$82,000	$118,000

Placement is read from Federal Student Aid Electronic Announcement GENERAL-26-42 (posted June 29, 2026; updated July 10, 2026) as retrieved on September 15, 2026; the Measures section of this appendix gives the release-week check. The strict reading counts only six-digit codes listed by name. The extended reading also applies the July 10, 2026, provision that extends the registered nursing (51.3801) and nursing practice (51.3818) entries to programs in the same four-digit code awarding the same credential, which brings in nurse practitioner and nurse midwifery. Neither the list of programs treated as professional nor the list of programs not treated, as retrieved on September 15, 2026, contains a dietetics or nutrition code (CIP 51.31, 19.05 or 30.19). The list is an interim designation for the duration of a preliminary stay in consolidated cases Nos. 26-1780 and 26-1941 (D.D.C.), and Federal Student Aid states that it may change as the litigation proceeds. Wages are BLS Occupational Employment and Wage Statistics national mean annual wages for May 2025; group means are unweighted means of occupation means. Exact *p* values are computed over every assignment of the observed group sizes to the thirteen wages (715 and 1,716 assignments), treat the fields as exchangeable, and describe the pattern rather than sample from a population. Replicates redraw each mean wage from its published OEWS relative standard error, independently, 20,000 times. Neither difference is statistically significant at the 5 percent level, and the association is weaker under the strict reading. Federal credit is Federal Direct Unsubsidized borrowing under Public Law 119-21, section 81001 (20 U.S.C. 1087e(a)(4)): annual limits of $50,000 inside and $20,500 outside and aggregate limits of $200,000 and $100,000, for full-time study over whole academic years by a student with no prior graduate borrowing, no interim-exception eligibility and no lower program-level limit set by the institution. The gap is largest at four years, where the $200,000 aggregate limit binds inside the category; at five years both aggregate limits bind and the gap is $100,000. These rows do not depend on any wage, principal, interest rate or living-cost budget. *Source* Author's analysis of Federal Student Aid Electronic Announcement GENERAL-26-42; BLS Occupational Employment and Wage Statistics, May 2025; Public Law 119-21 (2025)

Fig. M1 A stylized two-year comparison: federal credit available over a two-year graduate sequence for the thirteen fields, by placement inside or outside the federal professional degree category on the interim list as of September 29, 2026; the audiology, physical therapy and nurse anesthesia doctoral sequences typically run three to four years (audiology, typically four years of graduate education including at least 12 months of full-time supervised clinical experience, under the accreditation standard in effect since October 2025 [Council on Academic Accreditation in Audiology and Speech-Language Pathology, 2025]; physical therapy, a 4+3 curricular format with a three-year professional phase in 54.1 percent of accredited programs in 2025, averaging 122.6 weeks in program with a range of 88 to 180 [Commission on Accreditation in Physical Therapy Education, 2026]; nurse anesthesia, doctoral programs of at least 36 months [Council on Accreditation of Nurse Anesthesia Educational Programs, 2025]). Fields are ordered by May 2025 mean annual wage, shown at left, lowest at the top. Placement is associated with wage (29 of 36 cross-group pairs on May 2025 point estimates) but not ordered by it: the lowest-paid field sits inside the category while the next-lowest sits outside. Nurse practitioner has no dedicated CIP code and is represented throughout by the nursing family aggregate; nurse midwifery, which that aggregate also contains, is shown as its own row. X-axis begins at zero. *Source* Author's analysis of Federal Student Aid Electronic Announcement GENERAL-26-42 (posted June 29, 2026; updated July 10, 2026) and BLS Occupational Employment and Wage Statistics, May 2025



Ranked by May 2025 mean wage, athletic training is the lowest paid of the thirteen at $66,620 and can draw $100,000 in federal credit over two years, while dietetics, the next lowest at $77,130, can draw $41,000; the four fields outside the category hold wage ranks 2, 3, 4 and 8 of 13.

The financing interface

The mandates studied here were set before the federal graduate lending architecture changed, and the architecture that now applies treats the fields unevenly for reasons the wage ordering does not explain. A field whose entry sequence lengthened by a graduate degree, and which sits outside the professional degree category, faces both the added cost and the reduced federal capacity to meet it. The undergraduate evidence on federal borrowing limits establishes that a change in the statutory limit changes how much students borrow and which lenders they borrow from (Denning & Jones, 2021; Lee et al., 2020), which makes the placement of a field relative to the category a higher education policy question rather than a professional one. The graduate evidence from the 2006 cap removal points the same way on composition (Black et al., 2023; Bhole, 2017). It finds higher prices in the programs most exposed in Texas (Black et al., 2023), but little price response in medical, business and law schools (Kelchen, 2019, 2020).

At a stipulated principal, placement determines the split between federal and private credit: for a two-year sequence outside the category, roughly three quarters of the stipulated principal falls to private credit. The 2006 evidence indicates that added federal access also raised total federal borrowing and prices in exposed programs (Black et al., 2023), although Bhole (2017) finds that total borrowing did not rise, so placement is not neutral with respect to borrowing or price. At an unchanged principal, moving the same dollars inside the federal system substitutes income-contingent repayment for private amortization.

Federal borrowing categories bear on graduate program financing. The category's boundary does not track wage or licensure consistently. It sets a $59,000 difference in federal borrowing capacity across a two-year graduate sequence, $88,500 over three years and $118,000 over four, and it is under active litigation (both challenges open on the court record as of September 29, 2026). For programs outside the category, the difference determines which credit market their students must use for the balance above the federal limit, and the evidence from the 2006 cap removal indicates that the size of federal access can also move borrowing and prices (Black et al., 2023; but see Bhole, 2017).

Report 2

Registered dietitian practice locations, chronic disease prevalence and rurality in 2,928 US counties: a cross-sectional study with a negative control

The Dietetics Workforce Reports, Report 2, version 1.1

A research report series from Vitae Arete LLC

These reports are self-published and are not journal publications; see the status note.

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Keywords: dietitians; health workforce; rural health; chronic disease; negative control

In brief

What it asks. Are dietitians scarcer where diet-related disease is common, and is that about the disease or about the kind of place?

What it finds. Within states, dietitian numbers fall about as steeply with adult smoking as with diabetes and high blood pressure. If smoking and each disease mark local conditions about equally well, the disease pattern mostly reflects the kind of place rather than nutrition need; smoking also causes diseases such as type 2 diabetes, which would push the test toward this result. Separately, 776 of 2,928 counties had no dietitian practice location in the August 2026 federal provider file.

What it adds. A map of disease against dietitian supply cannot, on its own, tell nutrition need from the kind of place. This report shows how to check, with a control, from public records.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every reported result was regenerated by running the analysis code (Data availability says what of it is deposited) and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 348 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Version 1.1, released October 22, 2026, appends dated corrections (see Corrections); no finding changed. Version 1.0 was released September 29, 2026. Report record: 10.5281/zenodo.23570355; version 1.0: 10.5281/zenodo.23044618. Data and code: Zenodo data record, concept DOI 10.5281/zenodo.22716320; version for this report 10.5281/zenodo.23570358 (the version 2.0.0 archive, 10.5281/zenodo.23044652, with a data supplement for version 1.1 of this report).

Key findings

- Dietitian supply was lower where adult obesity, diabetes and high blood pressure were more common (modeled prevalence for 2023). Within states, it fell about as steeply with adult smoking, which is not a reason to see a dietitian, as with diabetes and high blood pressure.
- Smoking itself causes diseases such as type 2 diabetes, which would push this comparison toward that result. If smoking and each disease mark local conditions such as income and rurality about equally well, the pattern mostly reflects them rather than nutrition need (need for what dietitians treat).
- In the federal provider file of August 10, 2026, 776 of 2,928 counties (26.5%), home to 2.6% of residents, had no registered dietitian practice location. An audit confirmed 17 of these zeros as artifacts of assigning ZIP codes to counties and found possible practice addresses in 19 more.
- No pattern within states was detectable in counties with fewer than 20,000 residents, which include 667 of the 776 with no dietitian practice location. The test for nutrition need and planning for access therefore concern different counties, and planning can start from the 776 whatever produced the pattern.

Plain-language summary

Registered dietitians provide nutrition therapy for conditions such as diabetes. This report asks whether dietitians are scarcer where diet-related disease is common. It also asks whether that reflects the disease or local conditions such as income and rurality.

Counties where more adults have obesity, diabetes or high blood pressure had fewer dietitians per person. Adult smoking is common in much the same places but is not itself a reason to see a dietitian. Within states, dietitian numbers fell about as steeply with smoking as with diabetes and high blood pressure. Smoking also causes type 2 diabetes, which would push the comparison toward this result. If smoking and each disease mark local conditions about equally well, the pattern mostly reflects those conditions rather than nutrition need. Physical therapists showed the same pattern, although dietitian numbers fell more steeply than theirs with obesity, diabetes, high blood pressure and smoking alike.

In the August 2026 federal provider file, 776 of 2,928 counties had no dietitian practice location. Most have fewer than 20,000 residents, where the numbers are too small to detect any pattern within states. Whether their residents can reach nutrition care is a question planners can act on now.

Abstract

Objectives: This study asked whether county dietitian supply is lower where diet-related disease is common, and whether that reflects nutrition need or local conditions.

Methods: This cross-sectional study included 2,928 counties in forty-seven states and the District of Columbia. Dietitian counts came from the August 2026 federal provider file; adult prevalence of obesity, diabetes, hypertension, and smoking, from CDC PLACES 2025. Models with state fixed effects, which compare counties within the same state, adjusted for income, poverty, food insecurity, rurality, and age. Adult smoking, not a reason for nutrition therapy, was the negative control for each disease's gradient, how steeply supply fell as prevalence rose.

Results: Within states, supply was lower where disease prevalence was higher. Per standard deviation, disease-to-smoking gradient ratios were 1.19 (95% CI, 1.01-1.39; above 1, smoking steeper) for obesity, 1.02 (0.89-1.16) for diabetes, and 0.93 (0.81-1.07) for hypertension. In an extended mean model that let counts outgrow population, the obesity ratio was 1.13 (0.96-1.31). Without fixed effects, the diabetes association was stronger than smoking's (0.77; 95% CI, 0.64-0.93). Of 2,928 counties, 776 (26.5%), home to 2.6% of residents, had no dietitian practice location in the provider file (17 confirmed and 19 possible artifacts of assigning ZIP codes to counties). In the 1,238 counties with fewer than 20,000 residents, which include 667 of the 776 with no dietitian practice location, no within-state gradient was detectable.

Conclusions: Within states, smoking tracked supply about as closely as diabetes and hypertension. But smoking causes type 2 diabetes, which would push the comparison toward this result. If smoking and each disease mark local conditions about equally well, the disease gradients are not evidence about nutrition need. The 776 counties with no dietitian practice location warrant assessment of access whatever produced the gradients.

Disclosures

Ethics

This study analyzed only publicly available, aggregate county data and provider enumeration records that the Centers for Medicare & Medicaid Services publishes for public download. It involved no intervention or interaction with any person and no identifiable private information, and therefore, in the author's own assessment, did not constitute research involving human subjects under 45 CFR 46.102(e)(1). No institutional review board reviewed or waived the study. The study involved no human participants, and the report contains no data from any identifiable person.

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of the profession whose distribution is analyzed. He owns Vitae Arete LLC, the publisher of this report series, which offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has published essays critical of venture-funded telehealth nutrition companies, with which his practice competes; this report and its supplement name no such company, and none is implied. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; the findings reported here do not by themselves support those proposals. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without

separate payment. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this work (see the Methods and How this report was checked). He is credentialed by the Commission on Dietetic Registration, which this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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Introduction

This report asks whether registered dietitians are scarcer in US counties where diet-related disease is common, and whether that is about the disease or the kind of place. By the kind of place I mean local conditions such as income and rurality. Dietitians are scarcer where diet-related disease is common. Within states, however, their numbers fell about as steeply with adult smoking as with diabetes and high blood pressure. Smoking is not a reason to see a dietitian, but it causes diseases such as type 2 diabetes, which would push the comparison toward this result. If smoking and each disease mark local conditions about equally well, the disease pattern mostly reflects the kind of place rather than nutrition need (need for what dietitians treat). A disease map alone cannot tell nutrition need from the kind of place. This report shows how to check, with a control, from public records.

Adult obesity is more prevalent in nonmetropolitan than in metropolitan counties of the United States.[1] Diagnosed diabetes is more prevalent in noncore counties, the most rural, than in other counties.[2] Medical nutrition therapy delivered by dietitians improved glycemic control and weight in randomized trials among adults with type 2 diabetes or prediabetes.[3,4] Whether dietitians practice where these conditions are most prevalent is not reported in the Health Resources and Services Administration's published county workforce data. Its Area Health Resources Files contain county counts of nine professions derived from the National Provider Identifier file but no county count of dietitians. They report dietitians and nutritionists only at the state and national levels, in categories that do not distinguish the credential.[5]

Lower supply in nonmetropolitan counties has been reported for behavioral health providers from the same provider file, and primary care shortage areas coincide with markers of economic and geographic vulnerability.[6,7] A recent county study of public health nurses paired a need index with local supply to set priority areas and found that the two were weakly correlated.[8] Such comparisons leave open why supply and need covary. A workforce can be scarcer where the conditions it treats are common because its location responds to, or avoids, that need. Or supply and prevalence can both follow local conditions that shape many health measures. An Australian atlas mapped dietitian locations against type 2 diabetes and inferred inequitable access to dietetic services,[11] the kind of inference this report tests.

A negative control can test whether the association is specific to nutrition need.[14] It is a measure that follows the same local conditions but cannot plausibly reflect nutrition need. Adult cigarette smoking tracks the same local conditions as obesity and diabetes, but it is not itself an indication for medical nutrition therapy. The gradient is how steeply dietitian supply falls as prevalence rises. Suppose supply falls about as steeply with smoking as with the diseases. If smoking and each disease also mark local conditions about equally well, the disease gradient is not evidence about nutrition need. A part due to nutrition need still cannot be ruled out, and that condition cannot be checked directly (Box 1). The research questions were how dietitians are distributed across US counties and whether supply is associated with county prevalence of obesity, diabetes, and hypertension after adjustment. The last asked how the size of each association compares with that of smoking. That comparison describes how strongly each measure marks the local conditions remaining after adjustment rather than testing nutrition need directly.

Research questions and hypotheses. The report asks three questions. First, how are dietitians distributed across US counties, and where does the provider file record none? Second, is dietitian supply lower where adult obesity, diabetes and high blood pressure are more common, after adjustment? Third, within states, is supply more strongly associated with those diseases than with adult smoking, which lies on the same socioeconomic gradient but is not itself a reason to see a dietitian? The first is descriptive. For the second, the expected result was lower supply where prevalence is higher. The third is the negative-control test: if nutrition need drove supply, the disease slopes would be steeper than the smoking slope, and slopes about as steep as smoking's count against need, on the condition that smoking and each disease mark local conditions about equally well.

Methods

This cross-sectional study used the county as the unit of analysis and followed the Strengthening the Reporting of Observational Studies in Epidemiology guideline for cross-sectional studies.[15]

Dietitian supply

The outcome was the number of persons with a Registered Dietitian taxonomy code and a practice location in each county. Records came from the Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System (NPPES) file released August 10, 2026, the federal provider file.[16] Records had to be active, with a practice location in the fifty states or the District of Columbia. The Registered Dietitian code (133V family) could be in any of fifteen taxonomy fields (n = 72,465; record flow in eFigure 1). Taxonomy codes are selected by the provider and are not verified against the dietetic registry.

I assigned each practice ZIP code to a county using the Census 2020 relationship file.[18] Each ZIP code went to the county holding the largest share of its ZIP Code Tabulation Area's land, a Census area that approximates a ZIP code. This matched 71,333 of 72,465 records (98.4%) to a county. I call this ZIP-to-county assignment the crosswalk. Under this rule, no practice location could be assigned to twenty-seven county equivalents, which were excluded. They were Connecticut's nine planning regions, so that Connecticut is not represented, and eighteen Virginia independent cities. The same rule can assign a city's practices to the county around it. I therefore audited the counties with no assigned record against the practice-city field (eMethods 7). The audit changed neither the county counts nor the analytic sample.

Prevalence measures

Adult prevalence came from the Centers for Disease Control and Prevention PLACES, 2025 release. The measures were crude county prevalence of obesity, diagnosed diabetes, high blood pressure (hypertension), and current cigarette smoking among adults. PLACES models county estimates from 2023 Behavioral Risk Factor Surveillance System data.[19,20] PLACES has no estimates for Kentucky or Pennsylvania for measures based on 2023 data,[20] so their 187 counties were excluded. Smoking served as the negative control because it is not a nutrition indication. I included binge drinking, which was more common in higher-income counties, as a contrasting measure.

Covariates

Median household income and the poverty rate came from US Census Bureau Small Area Income and Poverty Estimates for 2023.[21] Population and the share aged 65 years or older came from US Census Bureau county population estimates, Vintage 2025.[22] Food insecurity came from Feeding America Map the Meal Gap, 2026 release (2024 estimates).[23] Rurality was the US Department of Agriculture Economic Research Service Rural-Urban Continuum Code, 2023, entered as a 1-to-9 scale. Codes 1 to 3 are metropolitan, and codes 8 and 9 are nonmetropolitan counties with an urban population of fewer than 5,000.[24]

Statistical analysis

I modeled counts with negative binomial regression, a count model that allows more variation between counties than a Poisson model (eTable 2). The logarithm of county population served as an offset. Each model contained one prevalence measure and all covariates. Standard errors were clustered on state (forty-seven states and the District of Columbia). This allows counties in the same state to be correlated. Likelihood-ratio tests favored an extended mean model, reported beside the primary model (Table 3; eMethods 2). It estimates how counts scale with population instead of assuming proportional scaling, and it enters rurality as eight indicators.

Models with state fixed effects compare each county only with other counties in the same state. This report calls their results within-state estimates. I designated these models as primary during reanalysis, after models with and without state fixed effects had both been fitted. I did so because residuals from models without them were spatially clustered and because dietitian licensure and Medicaid programs are set by states. I also report small-cluster *P* values and the effective number of clusters (eTable 4). That number measures how many states the clustered variance effectively rests on.

The negative-control comparison divided each disease measure's incidence rate ratio (IRR) per standard deviation (SD) by smoking's, using the separate models. The IRR is the factor by which dietitians per population change for a stated increase in a prevalence measure. This report calls it the gradient: how steeply supply falls as prevalence rises. Scaling per SD makes measures comparable. A ratio below 1 means supply fell more steeply with the disease; above 1, with smoking. Its 95% CI allowed for the covariance of the two coefficients (eMethods 3). The ratio describes how strongly each disease measure marks, per SD, the local conditions that remain after adjustment, relative to smoking. It bears on nutrition need only if smoking and each disease mark those conditions about equally well. That cannot be checked directly, although eTable 1 reports their correlations. The SD is one choice of scale; none is uniquely correct (eTable 4). To compare the within-state ratios in counties with fewer than 20,000 residents and in larger counties, I divided one ratio by the other (Table 4). I set no equivalence margin and interpreted comparisons from their CIs.

The sensitivity analyses are listed in eAppendix R (results in eTables 3 and 4). As a negative-control outcome, which nutrition need should not affect, I used county counts of physical therapists. They were persons with taxonomy code 225100000X or any of its ten specialization codes[29] in the NPPES file released September 14, 2026. I compared their disease-to-smoking ratios with those of dietitians recounted from that file by the same rules (eMethods 12; eTable 13). Analyses used Python version 3.12.9 (Python Software Foundation) and statsmodels version 0.14.6. I used a large language model (Claude, Anthropic) to write and check the provider-extraction, analysis, and figure code. I also used it to merge the public source files into the county analytic file, to search and screen the literature, and to draft and edit text. I used it to check reported figures against source files and references against bibliographic databases. I approved the design, analyses, and interpretation and am responsible for the content. The pre-release review is described in the status note.

Results

The 2,928 counties had 320,118,748 residents and 66,495 dietitians with a practice location in the provider file, or 20.77 per 100,000 (county median, 9.95; interquartile range, 0.00-19.11).

Overall, 776 of 2,928 counties (26.5%), home to 8,354,700 residents (2.6%), had no dietitian practice location in the provider file (Table 1). The audit in eMethods 7 confirmed 17 of these zeros as artifacts of assigning ZIP codes to counties. They were 13 of the 313 counties with at least 10,000 residents and 4 of the 463 smaller ones. Geocoded practice addresses placed a practice address in 19 further counties with none, so more artifacts are possible.

Counties with no dietitian practice location were concentrated among nonmetropolitan counties with an urban population of fewer than 5,000 (Figure 1). Among them, 216 of 437 counties adjacent to a metropolitan area (49.4%) and 341 of 562 not adjacent (60.7%) had none, together 557 of the 776 counties with no dietitian practice location (71.8%). Metropolitan counties (codes 1 to 3; 1,097 counties) had 21.89 dietitians per 100,000 and 138 (12.6%) with none. Nonmetropolitan counties (codes 4 to 9; 1,831 counties) had 13.48 per 100,000 and 638 (34.8%) with none. The 138 metropolitan counties with no dietitian practice location had a median population of 14,557. Nonmetropolitan counties with an urban population of 20,000 or more had the lowest proportions without a dietitian practice location (4 of 184 adjacent [2.2%]; 1 of 73 not adjacent [1.4%]).

Counties with no dietitian practice location were also concentrated among the least populous counties (Vintage 2025 population). They included 121 of the 147 counties with fewer than 2,500 residents (82.3%) and 342 of the 556 with 2,500 to 9,999 residents (61.5%). By contrast, 6 of the 942 counties with 50,000 or more (0.6%) had none. Population-weighted supply ran from 10.01 to 14.28 per 100,000 across the 4 bands below 50,000 residents (eTable 8). It was 23.33 per 100,000 in the 270 counties with 250,000 or more.

Within states, supply was lower where disease prevalence was higher (Table 2; all coefficients in eTable 6). Per percentage point, the IRR was 0.933 (95% CI, 0.922-0.944) for obesity, 0.840 (95% CI, 0.815-0.866) for diabetes, and 0.899 (95% CI, 0.887-0.912) for hypertension. Without state fixed effects, the IRRs were 0.948 (95% CI, 0.936-0.959), 0.821 (95% CI, 0.797-0.846), and 0.924 (95% CI, 0.909-0.940). Unadjusted, population-weighted supply was 23.90 per 100,000 in the lowest quartile of county obesity prevalence and 13.85 per 100,000 in the highest. By smoking prevalence, it was 23.01 per 100,000 in the lowest quartile and 10.72 per 100,000 in the highest (eTable 5). Binge drinking was more common in higher-income counties. It was associated with higher supply (within-state IRR per SD, 1.25; 95% CI, 1.16-1.34).

Within states, smoking was associated with supply about as strongly as diabetes and hypertension, and more strongly than obesity (Table 3; Figure 2). The ratio of per-SD IRRs, disease to smoking, was 1.19 (95% CI, 1.01-1.39) for obesity, 1.02 (95% CI, 0.89-1.16) for diabetes, and 0.93 (95% CI, 0.81-1.07) for hypertension. In the extended mean model, which fit the data better, the ratios were 1.13 (95% CI, 0.96-1.31), 0.98 (95% CI, 0.87-1.11), and 0.92 (95% CI, 0.80-1.05). The precision of these ratios rested mainly on a few states. For the primary within-state ratios, the effective number of clusters was 5.5 (obesity), 7.9 (diabetes), and 7.5 (hypertension) of 48 state clusters. Alaska and South Dakota together contributed 56.6%, 40.3%, and 45.7% of the clustered variance. Small-cluster *P* values were .03, .80, and .34, against .03, .79, and .32 with clustered standard errors (eTable 4; eMethods 11).

Without state fixed effects, the comparison changed for diabetes. There, the diabetes gradient was steeper than smoking's (0.77; 95% CI, 0.64-0.93), whereas the intervals for obesity (1.02; 95% CI, 0.85-1.23) and hypertension (0.86; 95% CI, 0.73-1.03) included 1.

Across the sensitivity analyses, smoking's gradient stayed about as steep as those of diabetes and hypertension, and steeper than obesity's in most. Figure 3 summarizes the ratios across twenty-one of the sensitivity analyses. Across these analyses, within-state separate-model diabetes and hypertension ratios at full-sample SDs ranged from 0.81 to 1.10, all with intervals including 1. The obesity-to-smoking interval excluded 1 with Poisson quasi-likelihood, which gives large counties more weight (1.42; 95% CI, 1.25-1.62). When the model estimated how counts scale with population, they rose faster than population (obesity model, 1.21; 95% CI, 1.15-1.27). With that scaling estimated and rurality entered as indicators, the within-state disease IRRs moved toward 1 by 0.013 to 0.026, and the obesity-to-smoking interval included 1 (1.13; 95% CI, 0.96-1.31). It also included 1 with either change alone and with a leave-one-state-out jackknife variance (1.19; 95% CI, 0.998-1.413). It included 1 with the dispersion parameter fixed at its value without state fixed effects (1.17; 95% CI, 0.998-1.376). The interval also included 1 in the 1,238 counties with fewer than 20,000 residents (1.06; 95% CI, 0.79-1.42).

In the counties with fewer than 20,000 residents, which included 667 of the 776 with no dietitian practice location, every within-state disease and smoking IRR had an interval including 1. Their ratios did not differ significantly from those in larger counties (Table 4; *P* for the difference, .10-.23). In the larger counties, smoking was steeper than obesity (1.35; 95% CI, 1.21-1.50), but the diabetes (1.10; 95% CI, 0.98-1.24) and hypertension (1.06; 95% CI, 0.93-1.20) intervals included 1.

Physical therapists, the negative-control outcome, showed the same disease-to-smoking pattern as dietitians, but dietitian supply fell more steeply than theirs. Physical therapist counts (file released September 14, 2026; 267,218 in analytic counties) were lower within states where each disease measure and smoking were more prevalent. Their IRRs per SD were 0.77 (95% CI, 0.73-0.81) for obesity, 0.67 (95% CI, 0.62-0.73) for diabetes, 0.63 (95% CI, 0.58-0.68) for hypertension, and 0.67 (95% CI, 0.59-0.76) for smoking. Their disease-to-smoking ratios were 1.15 (95% CI, 1.005-1.312) for obesity, 1.00 (95% CI, 0.89-1.12) for diabetes, and 0.94 (95% CI, 0.84-1.06) for hypertension. For dietitians counted from the same file, they were 1.19 (95% CI, 1.01-1.39), 1.02 (95% CI, 0.89-1.16), and 0.93 (95% CI, 0.81-1.07). The dietitian ratio divided by the physical therapist ratio was 1.03 (95% CI, 0.96-1.12) for obesity, 1.02 (95% CI, 0.95-1.09) for diabetes, and 0.99 (95% CI, 0.92-1.06) for hypertension. Per SD, dietitian supply fell more steeply than physical therapist supply with obesity, diabetes, hypertension, and smoking alike. The ratios of dietitian to physical therapist IRRs per SD, 0.89-0.93 within states, each had an interval that excluded 1. Without state fixed effects, the physical therapist diabetes gradient was steeper than smoking's, as it was for dietitians, with a ratio of 0.82 (95% CI, 0.69-0.97) (eTable 13).

Discussion

Dietitian supply was lower where diet-related chronic disease was more prevalent, the expected result for the second question. Within states, however, smoking was associated with supply about as strongly as diabetes and hypertension, which for the third question is the result that counts against nutrition need driving supply. Smoking itself causes diseases such as type 2 diabetes, which would push the comparison toward this result. If smoking and each disease mark local conditions about equally well, those gradients are not evidence that dietitians locate in response to, or away from, nutrition need. Separately, answering the first, descriptive question, 776 of 2,928 counties had no dietitian practice location in the August 2026 federal provider file. No within-state gradient was detectable in counties with fewer than 20,000 residents, where 667 of the 776 are. The test for nutrition need and the planning message therefore concern different counties.

What this means for dietetics

For dietetics, a map of dietitian supply against diet-related disease cannot, by itself, tell nutrition need from the kind of place. Studies that relate a workforce to the conditions it treats can add a negative control at little cost.

For the credentialing and professional bodies, the provider file is one way to count the workforce. It records practice locations, not practitioners. A count of practice locations from registry data would show how far provider-file zeros reflect missing practice rather than missing identifiers. Registrant addresses, where they are home addresses, record where dietitians live rather than where they practice. Telehealth reach across county lines was not measured here, nor was service by part-time or consultant dietitians based in other counties, an arrangement Medicare's conditions of participation allow for hospitals and nursing homes (42 CFR 482.28 and 483.60). As the Disclosures state, these findings do not by themselves support a shortage designation. Any use of them in that discussion should rest on the counties with no dietitian practice location, not on the gradient.

What this means for planners

Planners can act on the counties with no dietitian practice location without resolving why the gradient exists. The Health Resources and Services Administration could add a county count of dietitians to the Area Health Resources Files by using the taxonomy codes applied here. State offices of rural health, Medicaid programs, and health departments planning nutrition services could start from the 776 counties with no dietitian practice location in the provider file. Of these, eMethods 7 confirms 17 as crosswalk artifacts and finds possible practice addresses in 19 more. They are listed in eTable 10 with their populations and centroid distances to the nearest county with a dietitian practice location. Planners could then assess whether residents reach nutrition services in neighboring counties or by telehealth.

Strength of the comparison

The within-state comparisons had limited precision. With 80% power at the 5% level, they could detect a departure from a ratio of 1 only to about 0.83 or 1.21 for diabetes (eTable 1). Bounds for hypertension and obesity were similar. The result also depends on accounting for differences between states: without state fixed effects, the diabetes gradient was steeper than smoking's.

The obesity gradient was shallower than smoking's in the primary model and most sensitivity analyses. That direction is what supply partly tracking obesity-related need would produce. It is also what another tie between smoking and supply would produce. This design cannot distinguish the two. The direction also did not survive the extended mean model, which fit the data better (1.13; 95% CI, 0.96-1.31).

The gradients are consistent with supply and all of these measures following local conditions that the covariates did not capture. These could include where hospitals and other employers of dietitians are located, educational attainment, or racial and ethnic composition. Within states, the measures stayed correlated after adjustment (smoking with obesity, 0.47 [95% CI, 0.43-0.52]; with diabetes, 0.54 [0.48-0.64]; with hypertension, 0.63 [0.58-0.69]; eTable 1). Even so, each pair shared less than half of that remaining variation.

Physical therapists, counted by the same rules, showed the same within-state pattern. Their disease-to-smoking ratios did not differ detectably from those of dietitians (eTable 13). That suggests the pattern reflects where clinicians practice generally, although per SD, dietitian supply fell more steeply than physical therapist supply with obesity, diabetes, hypertension and smoking alike.

Limitations

The cross-sectional ecological design supports no causal inference. Provider identifiers are not routinely deactivated when providers stop practicing, so counts may overstate active supply. Practice addresses may be organizational, crediting urban centers with dietitians who serve wider areas. Dietitians without an identifier, who may include many who do not bill for services, are not counted. Whether identifier coverage differs by rurality or prevalence within states was not assessed. The crosswalk can misplace practices near county lines, and more artifacts than the 17 confirmed are possible (eMethods 7). The models used the county counts as assigned; reassigning the fifty-seven records behind the confirmed artifacts moved no within-state disease-to-smoking ratio by more than 0.011.

PLACES estimates are modeled, not measured directly. Each draws on a shared set of candidate inputs that includes county poverty and respondents' age, sex, race and ethnicity, and education.[32] Part of the similarity between the smoking and disease gradients may therefore be built into the estimates. Their uncertainty was not propagated, and they describe 2023, three years before the provider file.

The negative control assumes that smoking and each disease mark the local conditions they share about equally well. It also assumes that smoking has no path to dietitian supply through nutrition need. Neither can be checked directly. The second may not hold fully, because smoking causes type 2 diabetes, chronic obstructive pulmonary disease, and several cancers.[33] Such a path would bias the comparison toward finding no difference due to nutrition need.

The analysis did not measure access, utilization, telehealth across county lines, or outcomes. It was conducted by a single author who is a registered dietitian. Further limitations are in eAppendix R.

Conclusions

Dietitian supply was lower where diet-related chronic disease was more prevalent. Within states, adult smoking, which is not an indication for nutrition therapy, was associated with supply about as strongly as diabetes and hypertension. Smoking itself causes type 2 diabetes, which would push the comparison toward this result. If smoking and each disease mark local conditions about equally well, these gradients are not evidence about nutrition need. Still, the intervals do not show that the gradients are equal. Of 2,928 counties, 776 had no dietitian practice location in the August

2026 federal provider file. No within-state gradient was detectable in counties with fewer than 20,000 residents, which include 667 of those 776. Whether residents of the 776 counties can reach nutrition services is a planning question whatever produced the gradient. Workforce studies should test a negative control before reading such a gradient as evidence about need.

Acknowledgments

No person provided writing or editing assistance. The use of generative artificial intelligence tools, including for drafting text and for the pre-release review, is described in the Methods and in the status note.

Data availability

All primary sources are public, and each is identified with its location and access date in the references or, for the last one listed, in eMethods 12 of the supplement: the Centers for Medicare & Medicaid Services NPPES file released August 10, 2026, which is replaced monthly, so county counts from it are deposited; the Census 2020 ZIP Code Tabulation Area to county relationship file; CDC PLACES, 2025 release; Census Small Area Income and Poverty Estimates, 2023; Census county population estimates, Vintage 2025; USDA Economic Research Service Rural-Urban Continuum Codes, 2023; the Census 2023 Gazetteer; the American Community Survey 2020-2024 five-year estimates; the HUD-USPS ZIP code crosswalk for the second quarter of 2026; and the NPPES file used for the physical therapist outcome released September 14, 2026.

Deposited in the Zenodo data record (concept DOI 10.5281/zenodo.22716320; version for this report 10.5281/zenodo.23570358, which keeps the version 2.0.0 archive, 10.5281/zenodo.23044652, unchanged and adds a data supplement for version 1.1 of this report): the county analytic file with the variables of the primary models other than food insecurity, including a column that flags counties whose zero is a confirmed crosswalk artifact (the variables of the record-definition and age-adjusted sensitivity analyses are not in it: the first come from person-level provider records and the second from the PLACES release file, neither deposited); the ZIP-to-county crosswalk; the provider-extraction, analysis (scripts for each analysis task), figure and gate code; the result files of each analysis task; the dated verification sheet; and SHA-256 manifests of the record's files and of the archived input files. Two scripts that handle person-level provider records are not carried. The analysis scripts read input files, intermediate files and code modules that the record does not carry; the script that rebuilds the county file and the checks of the report text run from the record alone. Version 1.0.0 of the data record (doi:10.5281/zenodo.22716321) remains available as the record of an earlier build; its county file codes Harrisonburg city and Radford city, Virginia, as having no dietitian, which the audit in eMethods 7 found to be crosswalk artifacts along with 15 other counties.

Not redistributed: Feeding America Map the Meal Gap county estimates and County Health Rankings & Roadmaps estimates from the 2025 Annual Data Release, which are third-party data, and person-level provider records. The deposit includes a script that merges the food insecurity estimates into the county file and the SHA-256 checksum of the Map the Meal Gap county extract used (county level, 2024 data year). The manifest of the archived input files lists pulls of Feeding America's public map data endpoint (map.feedingamerica.org/mapdata) for the 2022 and 2023 data years and none for 2024, so how the 2024 extract was obtained is not recorded.

The report record (the report and its supplement, each a PDF): 10.5281/zenodo.23570355; version 1.0 (the report only): 10.5281/zenodo.23044618.

How this report was checked

The status note describes the checking. The validity gate ran 348 checks on the final text of version 1.1 on October 22, 2026, and the verification sheet, dated September 16, 2026, with addenda of September 25 and 29, 2026, and October 22, 2026, is deposited with the data (version 1.0: 278 checks on September 29, 2026). The use of a large language model is described in the Methods.

Corrections

Corrections to this report are dated, labelled and appended to it, and are listed in the version history in the series Introduction; the argument is never silently rewritten. Errors can be reported to jason@vitaearetehealth.com.

Correction, version 1.1, October 22, 2026. Data availability said that the report record, 10.5281/zenodo.23044618, holds the PDF, the HTML source and the figure files. It holds one file, the PDF of the report. The figure files for Figures 1 to 3 (PDF), eFigure 1 and Box 1 (PNG) are in the folder `figures` of the archive in the data record (version 2.0.0, 10.5281/zenodo.23044652). A search of the file lists of both records found no HTML source in either. The record for this version holds the report and its supplement, each a PDF, and Data availability now says so. An AI agent the author directed found the error on October 2, 2026, while building this version. This error affects no number and no finding.

Correction, version 1.1, October 22, 2026. The report and its supplement described the data record inexactly in eight places. They concerned the code behind the results, the county file's variables, the analysis code, the result tables, the manifest of archived inputs, the Map the Meal Gap extract, the HUD-USPS crosswalk and the registry pages. Version 2.0.0 of the data record held only part of what they said. The data supplement of this version adds analysis scripts, the manifest of the archived input files, the checksum and the log of the September 29, 2026 gate run. The text now says what the record holds. A read-only AI audit the author directed found these on October 2, 2026. These errors affect no number and no finding.

Updated October 22, 2026: the supplement is now published with this report. Its eTable 10 note said that the distances were between population centroids. They are between the internal points that the Census Bureau's 2023 Gazetteer file gives for each county. The alt text of Figure 1 gave the rate in the largest metropolitan counties as about 22; it is 22.57, so it now says about 23. The declaration of conflicting interest, the status note and the AI-use statement were updated, and the check count was refreshed. None of this changes a finding.

Using the county file

- `rdn_count` is the number of persons with a Registered Dietitian taxonomy code whose practice ZIP code was assigned to the county in the NPPES file of August 10, 2026. A zero means no such record was assigned to the county. It is neither a floor nor a ceiling on the nutrition services residents receive.
- The file is not updated when CMS replaces the NPPES file each month.
- Do not rank small counties by dietitians per 100,000: one record moves a small county's rate by a large amount.
- The twenty-seven county equivalents that no ZIP code area reaches are in the file but outside the analysis, and their zeros are structural.
- Counties flagged as confirmed crosswalk artifacts should not be read as having no dietitian (`zero_confirmed_crosswalk_artifact` = True).
- Taxonomy codes are chosen by providers and are not checked against the registry.
- Food insecurity is not included; it must be obtained from Feeding America or County Health Rankings & Roadmaps.

Glossary

- **Clustered standard errors.** Standard errors that allow counties in the same state to be correlated with each other.
- **Confidence interval (CI).** A range of values compatible with the data at the stated level; an interval that includes 1 for a ratio means the data cannot distinguish the ratio from no difference, which is not the same as showing no difference.
- **Effective number of clusters.** A measure of how many states the clustered variance effectively rests on; it is smaller than the number of states when a few states dominate.
- **Extended mean model.** The model that estimates how dietitian counts scale with population instead of assuming proportional scaling, and enters rurality as separate categories.
- **Incidence rate ratio (IRR).** The factor by which dietitians per population change for a stated increase in a prevalence measure; below 1 means fewer dietitians where prevalence is higher.
- **Jackknife.** A variance estimate formed by leaving out one state at a time and refitting.
- **Moran I.** A statistic for whether model errors in neighboring counties resemble each other.
- **Negative binomial regression.** A model for counts that allows more variation between counties than a Poisson model.
- **Negative control.** A measure that shares the suspected confounding but cannot plausibly reflect the mechanism of interest; here, adult smoking.
- **Negative-control outcome.** A different outcome that the mechanism of interest should not affect; here, physical therapist counts.
- **NPPES and taxonomy codes.** The federal National Plan and Provider Enumeration System lists providers with a National Provider Identifier; each provider selects taxonomy codes describing their field.
- **PLACES.** CDC estimates of county adult prevalence produced by statistical models from national survey data, not direct county measurements.
- **Per standard deviation (SD).** Scaling each prevalence measure by how much it varies across counties, so that measures on different ranges can be compared; other scales are possible and none is uniquely correct.
- **Poisson quasi-likelihood.** A count model that gives larger counties more weight than the negative binomial model.
- **Ratio of rate ratios.** A disease measure's IRR per SD divided by smoking's; below 1, supply falls more steeply with the disease, above 1, more steeply with smoking.
- **Rural-Urban Continuum Code.** The USDA classification of counties from 1 (large metropolitan) to 9 (nonmetropolitan, urban population under 5,000, not adjacent to a metropolitan area).
- **Small-cluster P value.** A P value from a wild-cluster bootstrap or sign-flip procedure that stays accurate when the variance rests on few clusters.
- **Within states (state fixed effects).** Comparing each county only with other counties in the same state.
- **ZIP Code Tabulation Area and crosswalk.** Census areas that approximate ZIP codes; the crosswalk assigns each to a county.

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Table 1. Registered dietitians with a practice location in the federal provider file, and counties with no dietitian practice location, by Rural-Urban Continuum Code, 2,928 US counties in 47 states and the District of Columbia, National Plan and Provider Enumeration System, August 2026[a]

Rural-Urban Continuum Code, 2023	Counties, No.	Population, Vintage 2025	Dietitians with a practice location, No.	Counties with no dietitian practice location, No. (%)	Dietitians per 100,000, county median	Dietitians per 100,000, population weighted
1: Metro, 1 million or more	407	185,395,343	41,838	36 (8.8)	13.31	22.57
2: Metro, 250,000 to 1 million	354	63,596,866	12,787	50 (14.1)	11.56	20.11
3: Metro, fewer than 250,000	336	28,600,514	6,139	52 (15.5)	14.08	21.46
4: Nonmetro, urban 20,000 or more, adjacent	184	12,263,684	1,947	4 (2.2)	14.09	15.88
5: Nonmetro, urban 20,000 or more, not adjacent	73	4,028,124	759	1 (1.4)	17.77	18.84
6: Nonmetro, urban 5,000 to 20,000, adjacent	347	10,758,879	1,142	52 (15.0)	8.73	10.61
7: Nonmetro, urban 5,000 to 20,000, not adjacent	228	5,469,095	938	24 (10.5)	12.33	17.15
8: Nonmetro, urban fewer than 5,000, adjacent	437	5,791,702	506	216 (49.4)	3.33	8.74
9: Nonmetro, urban fewer than 5,000, not adjacent	562	4,214,541	439	341 (60.7)	0.00	10.42
All counties	2,928	320,118,748	66,495	776 (26.5)	9.95	20.77

[a] Data sources: Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System, file released August 10, 2026 (persons with a Registered Dietitian taxonomy code); US Department of Agriculture Economic Research Service Rural-Urban Continuum Codes, 2023; US Census Bureau county population estimates, Vintage 2025. Codes 1 to 3 are metropolitan; codes 4 to 9 are nonmetropolitan, grouped by urban population and adjacency to a metropolitan area. Kentucky (120 counties) and Pennsylvania (67 counties) are excluded because the Centers for Disease Control and Prevention PLACES 2025 release has no estimates for them for measures based on 2023 data; Loving County, Texas, which has no PLACES estimate, and Kalawao County, Hawaii, which has no food insecurity estimate, are also excluded, as are 27 county equivalents that no ZIP code area could be assigned to (all 9 Connecticut planning regions, so Connecticut is not represented, and 18 Virginia independent cities). Median per 100,000 is the median of county rates; population-weighted per 100,000 is the dietitian total divided by the population total. A zero means that no Registered Dietitian record was assigned to the county; it is not a count of services. The largest-land-share rule produced confirmed false zeros, including Harrisonburg city and Radford city, Virginia (17 counties in all under the practice-city rule applied to the 776 counties with none, 13 of them among the 313 with at least 10,000 residents; eMethods 7). eTable 11 gives this table under the HUD-USPS crosswalk, and eTable 12 with ZIP codes holding 100 or more records capped.

Table 2. Associations between county adult prevalence of chronic diseases and health behaviors (Centers for Disease Control and Prevention PLACES, 2025 release, 2023 data) and the number of registered dietitians (Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System, August 2026), negative binomial regression with and without state fixed effects, 2,928 US counties in 47 states and the District of Columbia[a]

Adult prevalence measure	With state fixed effects (primary), IRR per percentage point (95% CI)	With state fixed effects, IRR per SD (95% CI)	Without state fixed effects, IRR per percentage point (95% CI)	Without state fixed effects, IRR per SD (95% CI)
Adult obesity	0.933 (0.922-0.944)	0.720 (0.681-0.762)	0.948 (0.936-0.959)	0.774 (0.730-0.821)
Diagnosed diabetes	0.840 (0.815-0.866)	0.617 (0.568-0.671)	0.821 (0.797-0.846)	0.581 (0.535-0.630)
High blood pressure (hypertension)	0.899 (0.887-0.912)	0.564 (0.523-0.609)	0.924 (0.909-0.940)	0.654 (0.596-0.717)
Current smoking (negative control)	0.866 (0.825-0.909)	0.607 (0.513-0.718)	0.923 (0.874-0.975)	0.757 (0.626-0.916)

Adult prevalence measure	With state fixed effects (primary), IRR per percentage point (95% CI)	With state fixed effects, IRR per SD (95% CI)	Without state fixed effects, IRR per percentage point (95% CI)	Without state fixed effects, IRR per SD (95% CI)
Binge drinking	1.100 (1.065-1.137)	1.246 (1.155-1.344)	1.088 (1.046-1.131)	1.214 (1.110-1.327)

Abbreviations: IRR, incidence rate ratio; SD, standard deviation.

[a] Data sources: Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System (August 10, 2026); Centers for Disease Control and Prevention PLACES, 2025 release (Behavioral Risk Factor Surveillance System 2023 data); US Census Bureau Small Area Income and Poverty Estimates, 2023, and county population estimates, Vintage 2025; Feeding America Map the Meal Gap, 2026 release; US Department of Agriculture Rural-Urban Continuum Codes, 2023. Each prevalence measure was fitted in 2 models, 1 with and 1 without state fixed effects; the per-percentage-point and per-SD columns come from the same model. Each model contains that measure and median household income, poverty rate, food insecurity, Rural-Urban Continuum Code, and share aged 65 years or older, with the logarithm of county population as an offset. Prevalence is crude (not age-adjusted) adult prevalence. An IRR below 1 indicates fewer dietitians per population where prevalence is higher. Current smoking is the negative control; binge drinking, more common in higher-income counties, is a contrasting measure. The 95% CIs use standard errors clustered on state (48 clusters; with state fixed effects, the single-county District of Columbia contributes no information to the clustered variance) with the dispersion parameter held at its maximum-likelihood value, found by profile likelihood in the models with state fixed effects. SDs of county prevalence (percentage points): obesity, 4.74; diabetes, 2.76; hypertension, 5.40; current smoking, 3.47; binge drinking, 2.30.

Table 3. Association of county adult prevalence of obesity, diabetes, and hypertension with the number of registered dietitians compared with that of adult current smoking (negative control), ratios of per-standard-deviation incidence rate ratios in the primary and extended mean models, 2,928 US counties in 47 states and the District of Columbia; Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System (August 2026) and Centers for Disease Control and Prevention PLACES (2025 release, 2023 data)[a]

Comparison	Separate models, ratio (95% CI)	*P*	One model, ratio (95% CI)	*P*	Extended mean model, separate models, ratio (95% CI)	*P*
With state fixed effects (primary)						
Adult obesity vs smoking	1.19 (1.01-1.39)	.03	1.23 (0.95-1.59)	.11	1.13 (0.96-1.31)	.13
Diagnosed diabetes vs smoking	1.02 (0.89-1.16)	.79	1.17 (0.88-1.54)	.28	0.98 (0.87-1.11)	.79
High blood pressure (hypertension) vs smoking	0.93 (0.81-1.07)	.32	1.04 (0.73-1.49)	.82	0.92 (0.80-1.05)	.22
Without state fixed effects						
Adult obesity vs smoking	1.02 (0.85-1.23)	.81	0.96 (0.70-1.31)	.78	0.98 (0.82-1.17)	.85
Diagnosed diabetes vs smoking	0.77 (0.64-0.93)	.006	0.62 (0.47-0.82)	<.001	0.76 (0.63-0.91)	.003
High blood pressure (hypertension) vs smoking	0.86 (0.73-1.03)	.10	0.71 (0.53-0.95)	.02	0.85 (0.714-1.004)	.055

Abbreviations: IRR, incidence rate ratio; SD, standard deviation.

[a] Data sources: Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System (August 10, 2026); Centers for Disease Control and Prevention PLACES, 2025 release (Behavioral Risk Factor Surveillance System 2023 data); US Census Bureau Small Area Income and Poverty Estimates, 2023, and county population estimates, Vintage 2025; Feeding America Map the Meal Gap, 2026 release; US Department of Agriculture Economic Research Service Rural-Urban Continuum Codes, 2023. Every disease and smoking IRR per SD in Table 2 is below 1, meaning fewer dietitians per population where prevalence is higher. The ratio divides the disease measure's IRR per SD by that of adult current smoking: below 1, supply falls more steeply with the disease measure than with smoking; above 1, more steeply with smoking. SDs of county prevalence (percentage points): obesity, 4.74; diabetes, 2.76; hypertension, 5.40; current smoking, 3.47. Separate models: each measure in its own model, as in Table 2; the 95% CI uses the covariance of the 2 coefficients across models, estimated from state-clustered influence functions. One model: both standardized measures entered together with the same covariates, so each association is adjusted for the other; 95% CI from standard errors clustered on state (48 clusters). In both columns the dispersion parameter is held at its maximum-likelihood value. *P* values are from 2-sided tests of the null hypothesis that the ratio equals 1. No equivalence margin was specified, so an interval that includes 1 does not show that the gradients are equal. Extended mean model: the logarithm of population entered as a covariate with the offset retained, and the Rural-Urban Continuum Code entered as 8 indicators; likelihood-ratio tests favor it over the primary model (eMethods 2). Effective numbers of clusters and small-cluster *P* values for these comparisons are in eTable 4.

Table 4. Within-state associations and negative-control ratios in counties with fewer than 20,000 residents and in counties with 20,000 or more, 2,928 US counties in 47 states and the District of Columbia; registered dietitians with a practice location in the National Plan and Provider Enumeration System (August 2026); adult prevalence from PLACES (2025 release, 2023 data); population, Vintage 2025[a]

Estimate, with state fixed effects	Fewer than 20,000 residents: 1,238 counties, 667 with no dietitian practice location (95% CI)	20,000 or more residents: 1,690 counties, 109 with none (95% CI)	Ratio of the two ratios, smaller to larger (95% CI)	*P*
Adult obesity, IRR per percentage point	0.986 (0.943-1.032)	0.930 (0.919-0.941)		
Diagnosed diabetes, IRR per percentage point	0.938 (0.826-1.065)	0.821 (0.797-0.845)		
High blood pressure, IRR per percentage point	0.939 (0.869-1.015)	0.897 (0.881-0.912)		
Current smoking, IRR per percentage point	0.965 (0.882-1.055)	0.831 (0.803-0.860)		
Adult obesity vs smoking, ratio of per-SD IRRs	1.06 (0.79-1.42)	1.35 (1.21-1.50)	0.79 (0.58-1.07)	.13
Diagnosed diabetes vs smoking, ratio of per-SD IRRs	0.95 (0.77-1.17)	1.10 (0.98-1.24)	0.86 (0.67-1.10)	.23
High blood pressure vs smoking, ratio of per-SD IRRs	0.81 (0.62-1.06)	1.06 (0.93-1.20)	0.76 (0.56-1.05)	.10

Abbreviations: IRR, incidence rate ratio; SD, standard deviation.

[a] Values from eTable 3. Models as in Table 2, fitted separately in each subset with state fixed effects; ratios use full-sample SDs. The smaller subset has 42 state clusters, 4 of which contribute no within-state information; the larger has 48. The ratio of the two ratios and its *P* use the 4 models' state-summed influence functions. In the smaller counties every within-state disease and smoking interval includes 1, so no within-state gradient was detectable there; the difference from larger counties is not statistically significant for any measure. Without state fixed effects, the smaller counties' diabetes and hypertension ratios were 0.64 (0.48-0.86) and 0.65 (0.49-0.85). Data sources as in Table 3.

Box 1. How the negative control works

If dietitians were scarce where diabetes is common because their location responds to diabetes, or avoids it, the shortfall should be specific to conditions dietitians treat. If instead dietitians, like many clinicians, are scarcer in places that are poorer, more rural or different in other ways, supply should fall just as steeply with any health measure that tracks those places, whether or not dietitians treat it. Adult smoking is such a measure: across counties it follows much the same socioeconomic pattern as obesity, diabetes and high blood pressure, but smoking is not a reason to see a dietitian. So this report asks how steeply supply falls with each disease compared with how steeply it falls with smoking, comparing counties within the same state. Similar slopes mean the disease slope cannot be read as evidence about nutrition need. A disease slope clearly steeper than smoking's would point to something specific to that disease; a shallower one is what supply partly tracking that need would produce, and also what confounding specific to smoking would produce. Two cautions apply. The comparison assumes smoking and each disease are about equally good markers of the place characteristics they share, which cannot be checked directly. And smoking causes type 2 diabetes, which would push the comparison toward similar slopes.

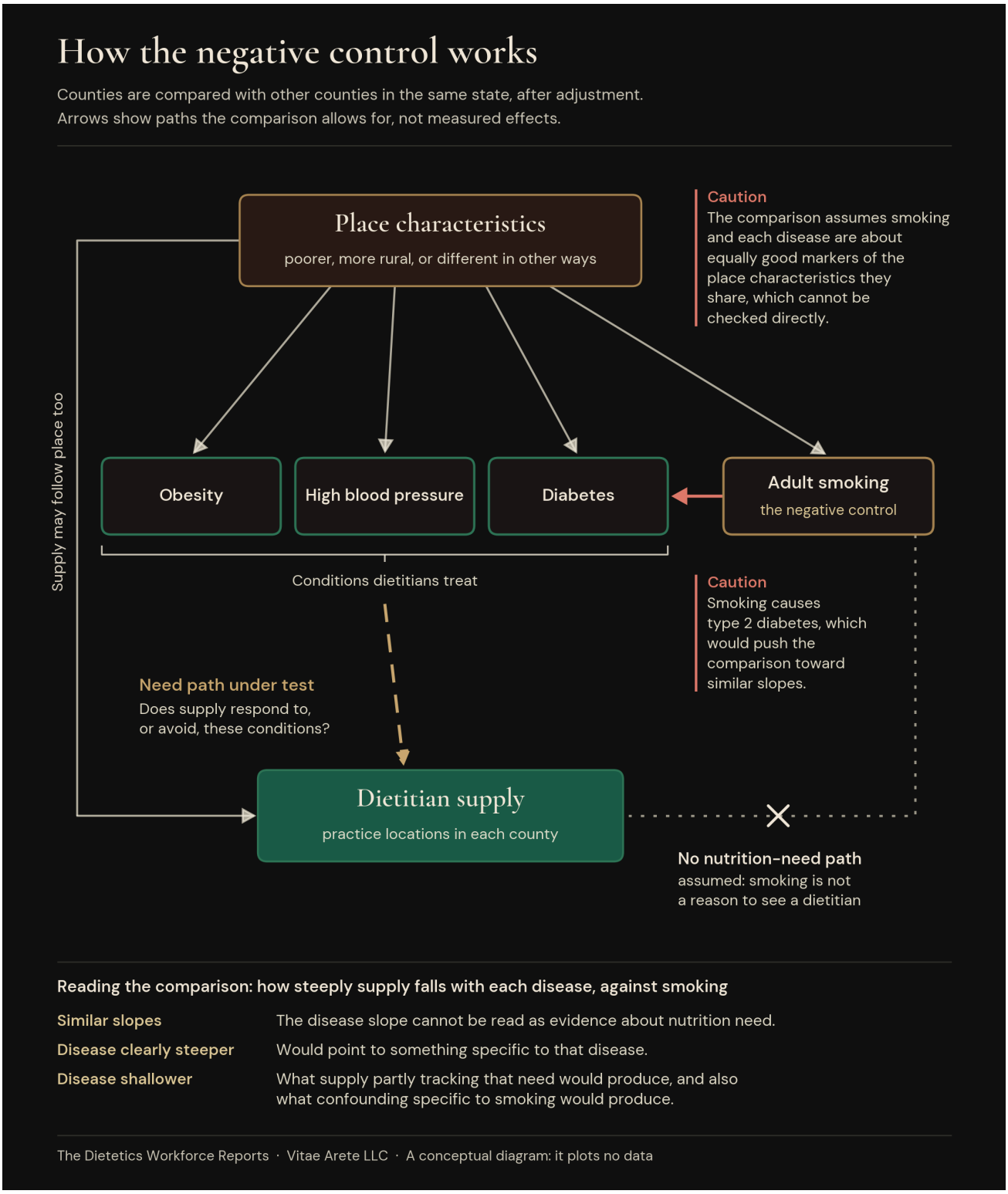
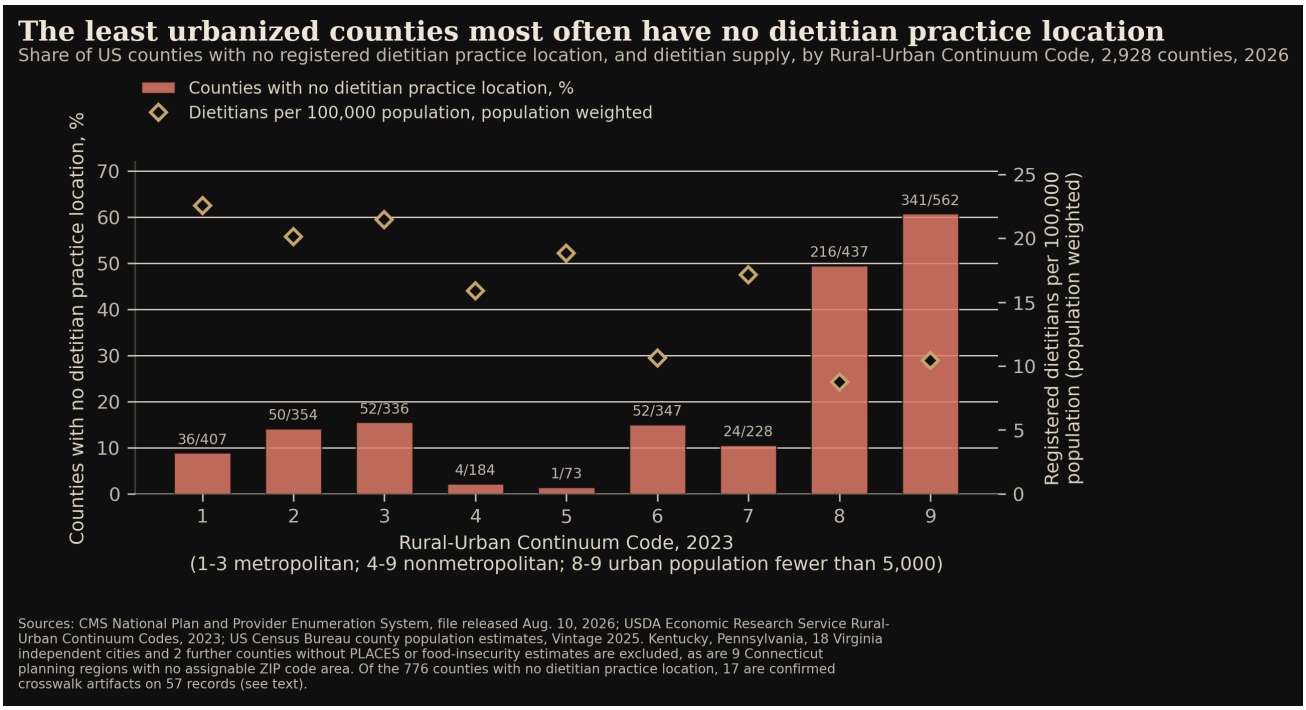


Diagram for Box 1: dietitian supply and each prevalence measure may both follow place characteristics, so a disease slope similar to smoking's cannot be read as evidence about nutrition need

Alt text: Dietitian supply and each prevalence measure may both follow place characteristics, such as being poorer or more rural, so a disease slope similar to smoking's cannot be read as evidence about nutrition need. The diagram shows place characteristics with paths to dietitian supply and to county adult prevalence of obesity, high blood pressure, diabetes and smoking. The path under test runs from the three conditions dietitians treat to dietitian supply. Smoking, the negative control, is assumed to have no nutrition-need path to supply, because smoking is not a reason to see a

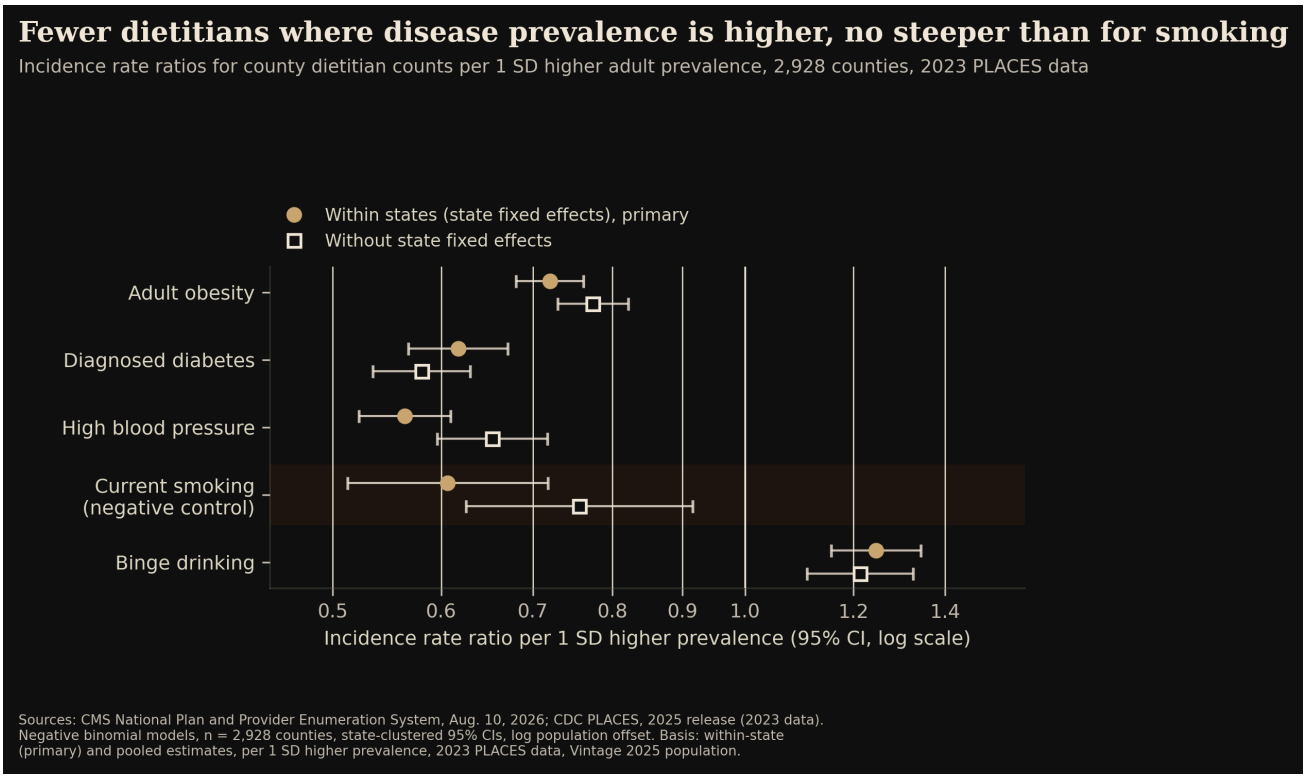
dietitian. Two cautions are marked: the comparison assumes smoking and each disease are about equally good markers of the place characteristics they share, which cannot be checked directly; and smoking causes type 2 diabetes, which would push the comparison toward similar slopes. A disease slope clearly steeper than smoking's would point to something specific to that disease; a shallower one is what supply partly tracking that need would produce, and also what confounding specific to smoking would produce. Counties are compared with other counties in the same state, after adjustment; the diagram plots no data.



Counties with no registered dietitian practice location in the federal provider file rise from 9 percent in the largest metropolitan counties to 61 percent in the least urbanized nonmetropolitan counties, while dietitian supply falls from about 23 to 10 per 100,000 population, 2,928 US counties, 2026.

Figure 1. Percentage of counties with no registered dietitian practice location in the federal provider file (bars; labels give counties with none over all counties) and registered dietitians per 100,000 population (markers; population weighted, all dietitians in each code divided by the code's total population; county medians are in Table 1), by Rural-Urban Continuum Code, 2,928 US counties in 47 states and the District of Columbia, 2026. Absence was concentrated in nonmetropolitan counties with an urban population of fewer than 5,000 (codes 8 and 9). Data sources: Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System, file released August 10, 2026; US Department of Agriculture Economic Research Service Rural-Urban Continuum Codes, 2023; US Census Bureau county population estimates, Vintage 2025. Kentucky and Pennsylvania are excluded because the Centers for Disease Control and Prevention PLACES 2025 release has no estimates for them for measures based on 2023 data; Loving County, Texas, which has no PLACES estimate, and Kalawao County, Hawaii, which has no food insecurity estimate, are also excluded, as are 27 county equivalents that no ZIP code area could be assigned to (all 9 Connecticut planning regions, so Connecticut is not represented, and 18 Virginia independent cities). Counties with no practice location include confirmed crosswalk artifacts, among them Harrisonburg city and Radford city, Virginia (17 counties in all; eMethods 7).

Alt text: Counties with no registered dietitian practice location in the federal provider file rise from 9 percent in the largest metropolitan counties to 61 percent in the least urbanized nonmetropolitan counties, while dietitian supply per 100,000 population falls from about 23 to 10 over the same range, 2,928 US counties, 2026. Of the 776 counties with no dietitian practice location, 17 are confirmed crosswalk artifacts on 57 records.



Dietitian counts are lower in counties with higher prevalence of adult obesity, diagnosed diabetes, high blood pressure and current smoking, but the smoking negative control shows a gradient about as steep as diabetes and high blood pressure, so within-state comparisons alone do not distinguish these conditions from smoking; binge drinking runs the opposite way. 2,928 US counties, 2023 prevalence data.

Figure 2. Incidence rate ratios (95% CIs) for the number of registered dietitians per 1 standard deviation higher county adult prevalence of each measure, from negative binomial models with state fixed effects (primary; filled circles) and without them (open squares), 2,928 US counties in 47 states and the District of Columbia; dietitian counts from the Centers for Medicare & Medicaid Services National Plan and Provider Enumeration System, August 2026, and adult prevalence from Centers for Disease Control and Prevention PLACES, 2025 release (2023 data). Current smoking (shaded row) is the negative control. Values below 1 indicate fewer dietitians where prevalence is higher; the horizontal axis is logarithmic. Overlap between the intervals for a disease measure and for smoking does not test whether their associations differ, and the 2 models share the same counties; Table 3 gives that comparison: within states, smoking's gradient was about as steep as those of diabetes and high blood pressure and steeper than obesity's (obesity to smoking, 1.19; 95% CI, 1.01-1.39). Each model adjusts for median household income, poverty rate, food insecurity, Rural-Urban Continuum Code, and share aged 65 years or older, with the logarithm of county population as an offset; 95% CIs use standard errors clustered on state. SDs of county prevalence (percentage points): obesity, 4.74; diabetes, 2.76; high blood pressure, 5.40; current smoking, 3.47; binge drinking, 2.30. Covariate sources: US Census Bureau Small Area Income and Poverty Estimates, 2023, and county population estimates, Vintage 2025; Feeding America Map the Meal Gap, 2026 release; US Department of Agriculture Economic Research Service Rural-Urban Continuum Codes, 2023.

Alt text: Dietitian counts are lower where adult obesity, diagnosed diabetes, high blood pressure or current smoking prevalence is higher; the smoking negative control's gradient is about as steep as diabetes and high blood pressure, within states. Binge drinking runs the opposite way. 2,928 US counties, 2023 PLACES data.

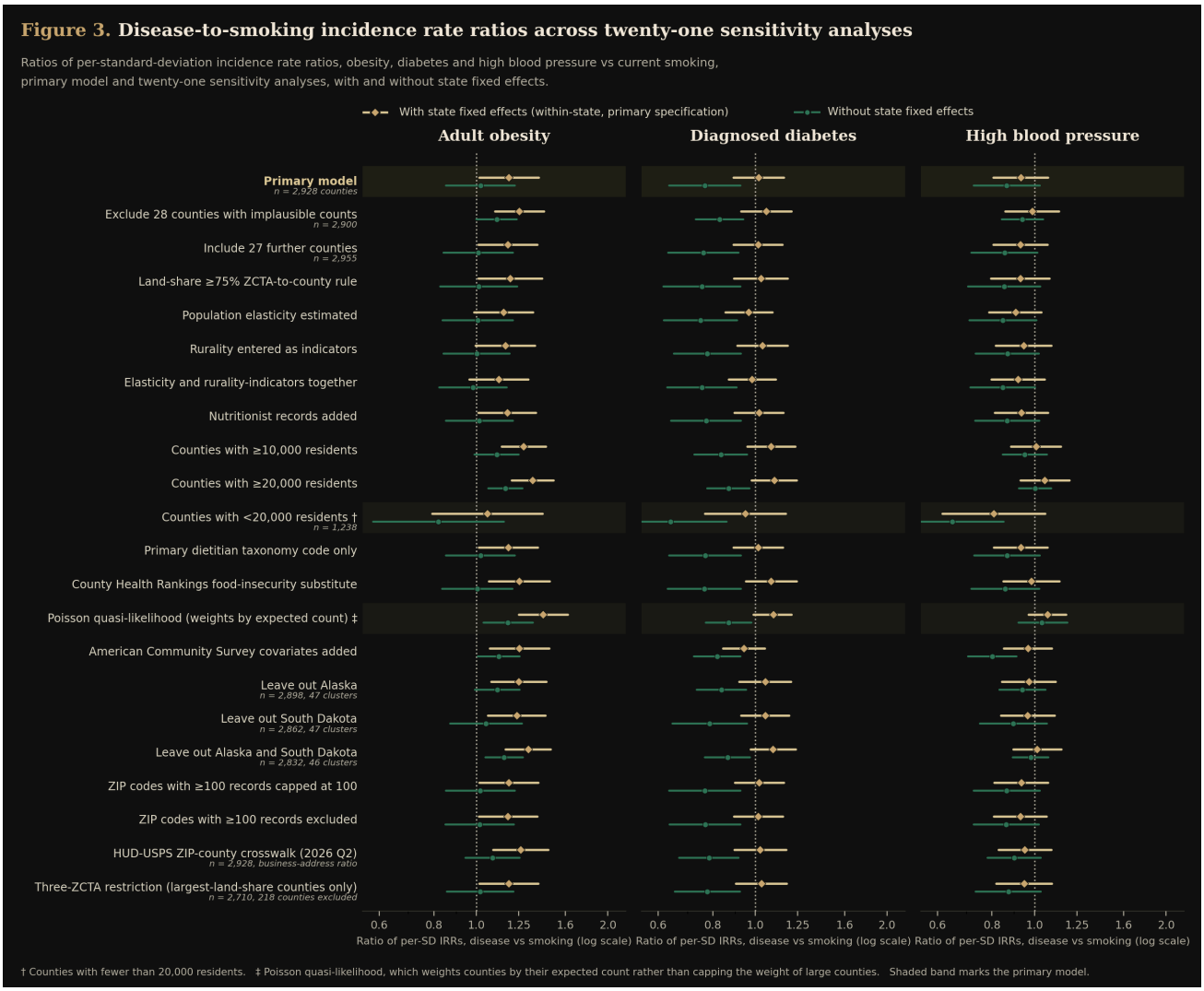


Figure 3. Ratios of per-standard-deviation incidence rate ratios, each disease measure to adult smoking, primary model and twenty-one sensitivity analyses, with and without state fixed effects.

Figure 3. Ratios of per-standard-deviation incidence rate ratios, each disease measure to adult smoking, with 95% CIs, in the primary model and twenty-one sensitivity analyses (the jackknife variance and the alternative scales, among others, are in eTable 4), with and without state fixed effects; rows for counties with fewer than 20,000 residents and for Poisson quasi-likelihood are marked. Ratios with state fixed effects are within-state, per 1-SD higher county prevalence, from negative binomial models with dietitian counts from the CMS National Plan and Provider Enumeration System file released August 10, 2026, adult prevalence from CDC PLACES, 2025 release (2023 data), and Census Vintage 2025 (July 1, 2025) population as the offset; ratios without state fixed effects use the same data and are shown for comparison (eTable 3). Sources for the added analyses: American Community Survey 2020-2024 5-year estimates and the Alaska and South Dakota leave-outs (eTable 4); the ZIP-code cap and exclusion (eTable 12); the HUD-USPS ZIP-to-county crosswalk, second quarter of 2026 (eTable 11); and the three-ZCTA restriction (eTable 3). The one qualification: most of these analyses reweight or restrict the same 2,928 counties rather than draw an independent sample, so the number of analyses in agreement is not a count of independent replications.

Alt text: Across the primary model and twenty-one sensitivity analyses, the obesity-to-smoking ratio of per-standard-deviation incidence rate ratios stays above 1 with state fixed effects, although its interval includes 1 in four of them, while every diabetes and hypertension interval includes 1; without state fixed effects, diabetes is consistently steeper than smoking.

Report 3

The Dietetics Workforce Reports *A research report series from Vitae Arete LLC*

Report 3 · Version 1.2 · October 22, 2026

Where the limits live

Statute, regulation and coverage determination in Medicare's nutrition therapy benefit, with an analysis of fee-for-service claims for 2010 to 2025

These reports are self-published and are not journal publications; see the status note.

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In brief

What it asks. Which legal document sets each limit on Medicare's medical nutrition therapy benefit, and which limits can the agency that runs Medicare change without Congress?

What it finds. Congress set the covered diagnoses in statute. The Centers for Medicare & Medicaid Services set the hours in 2002 and who may bill for dietary counseling in 2011, and has not formally reconsidered either.

What it adds. Anyone seeking to change the benefit needs to know which limits take an act of Congress and which the agency can reopen on its own. This report maps each limit to the document that holds it.

Status of this report. This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every reported number was regenerated by running the analysis code (Data availability says what of it is deposited) and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 741 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Abstract

Background. Medicare's medical nutrition therapy benefit limits who is covered, who may bill, how many hours are covered and what is paid, and each limit sits in a legal instrument that changes by its own procedure. Earlier work placed the hours in a coverage determination; a search on September 29, 2026, found no study mapping every limit to its instrument.

Objective. To identify the instrument holding each limit, what reopening it would require and whether it has been formally reconsidered, and to describe its claims for 2010 to 2025.

Methods. Documentary and legal analysis of the statute, regulations, coverage determinations, decision memoranda, Federal Register notices and bill records, read at their issuing sources in August and September 2026, and a descriptive tabulation of the CMS Physician/Supplier Procedure Summary for 2010 to 2025, with exact bounds for unpublished counts.

Results. The covered conditions, referral requirement, practitioner standard and payment percentages are in statute, and 16 bills to broaden the benefit since 2000 have not been enacted. The hours are set in National Coverage Determination 180.1 and who may bill preventive dietary counseling in Determinations 210.11 and 210.12; CMS can reconsider these without Congress, and as of September 11, 2026, none had been formally reconsidered since 2002 and 2011. Allowed charges were about $13.4 million in 2025 and fell in constant dollars after 2019, mostly through a lower allowed charge per service. In 2025 at least 72 percent of submitted group nutrition therapy services were denied, against at most 39 percent for group diabetes self-management training, a gap that holds on the bounds in every year from 2010; the file records no reason for denial.

Conclusions. The hours and who may bill preventive dietary counseling sit in determinations the agency can reconsider on its own. Legal revisability is not political revisability.

Keywords. Medicare coverage; national coverage determinations; administrative law; medical nutrition therapy; policy drift; claims data

Key findings

- **Where the limits sit (as of September 11, 2026).** The covered conditions, referral requirement, practitioner standard and payment percentages are in statute. The hours are in National Coverage Determination 180.1, and who may bill preventive dietary counseling is in Determinations 210.11 and 210.12, although independent billing by dietitians would also depend on qualification and payment rules written for medical nutrition therapy.
- **Reconsideration.** Bills under the Medical Nutrition Therapy Act titles have been introduced 16 times since the benefit was created, none enacted. The hours have not been formally reconsidered since 2002, or the counseling determinations since 2011, although the US Preventive Services Task Force recommendations underlying the counseling determinations have each been replaced twice.
- **Spending (2019 to 2025).** Allowed charges on fee-for-service carrier claims were $13,405,259 in 2025, 31.8 percent below their 2019 peak in constant 2025 dollars, mostly through a lower allowed charge per service rather than fewer services: 76 percent of the decline on the published cells, and at least 58 percent across the bounds.
- **Denials (2010 to 2025).** In 2025 at least 72 percent of submitted group nutrition therapy services were denied, against at most 39 percent for group diabetes self-management training, and the lowest group nutrition therapy rate consistent with the file exceeded the highest group training rate in every year from 2010. Individual nutrition therapy (codes 97802 and 97803 together) was denied more often than individual diabetes self-management training (code G0108) in 15 of 16 years on the published-cell estimator, by at most 17.7 points (2021), and the difference survives the bounds only from 2014 through 2022; in 2025 it was 5.3 points (from 2.8 points lower to 11.9 points higher across the bounds). The group-code difference between 97804 and G0109 exceeded it in every year on that estimator and in every year but 2020 on the bounds. These are services on fee-for-service carrier claims, not beneficiaries, and the file records no reason for denial. The group-code gap is registered as a prediction for the 2026 claims.

Plain-language summary

Medicare's nutrition therapy benefit, the one Congress wrote for services by registered dietitians and nutrition professionals, covers only diabetes and certain kidney disease. Congress created it in 2000. Several limits sit on it: which diagnoses qualify, who may refer, who may bill, how many hours are covered and what Medicare pays.

This report asks, for each limit, which legal document holds it and what changing it would take. Some limits are in the statute, so changing them takes an act of Congress; bills to broaden the benefit have been introduced sixteen times since 2000, and none has passed. The number of covered hours is not in the statute. It sits in a coverage decision that the agency running Medicare can reconsider on its own, and the agency has not formally reconsidered it since 2002, or its decisions on who may bill preventive diet counseling since 2011.

In Medicare's claims from 2010 to 2025, group nutrition therapy was denied far more often than group diabetes education in every year. The claims file does not record why.

The one sentence to repeat: the hours and who may bill diet counseling sit in decisions Medicare can reopen without Congress, and it has not formally reconsidered them.

Disclosures

Declaration of conflicting interest. The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida. The benefit this report examines is furnished by registered dietitians and nutrition professionals, and the administrative changes the report identifies as legally available would benefit that profession, including the author. He owns Vitae Arete LLC, under which this work was done, which offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. Neither he nor Vitae Arete LLC bills Medicare for any of the codes this report tabulates. He has published essays critical of venture-funded telehealth nutrition companies, with which his practice competes; this report does not identify any biller, and none is implied. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce and has advocated for changes in dietetics workforce and Medicare payment policy; he has written publicly, including in posts available only to paid subscribers of his newsletter, in support of broadening Medicare coverage of medical nutrition therapy. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; this report does not address those proposals, and its findings neither support nor test them. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. This report was prepared independently and does not represent the views of AdventHealth; his employer had no role in it, and no employer data or nonpublic data were used.

He filed two public comments, in an individual capacity, to Docket CMS-2026-2377 (CMS-1848-P), the calendar year 2027 physician fee schedule proposed rule that this report discusses in one section: on August 6, 2026, on the shared medical appointment and rural health clinic provisions (tracking number msh-p900-yypp, posted August 10, 2026, as CMS-2026-2377-2453); and on September 8, 2026, on the health coaching codes (tracking number mts-siej-rskk, posted September 11, 2026, as CMS-2026-2377-27103). Two further comments, on the request for information about the Current Procedural Terminology coding system and on diabetes self-management training in rural health clinics, were drafted and not filed. One of those filed comments contains a statement this report corrects (see Prior dissemination and corrections); neither is cited as evidence here. In

August and September 2026 he asked the Academy of Nutrition and Dietetics to encourage other professional organizations to file their own comments on that proposed rule. On September 1, 2026, he posted a guide to commenting on the rule on his company's website, since removed; as of September 16, 2026, it returned no content at that address or at five sampled permalinks of earlier deploys of the site. On September 10, 2026, he posted on LinkedIn on how to write such a comment.

He has shared workforce analyses with the Academy of Nutrition and Dietetics, has given informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo. He holds no paid position with and has received no funding from the Academy or its affiliated bodies, and he holds no office in and receives no payment from any organization he asked to comment. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He applied to Anthropic's AI for Science program and is enrolled in a university study of AI in scientific research drawn from its applicants, whose participants are entered in a lottery for Claude credits or a subscription; no credits or subscription from the study were used in this work; Anthropic makes Claude, the AI tool used in this work (see How this report was checked). He is credentialed by the Commission on Dietetic Registration, which this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from this report's findings, and no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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Prior dissemination. Material in this report that appeared earlier in the author's own writing and public comments, and the corrections this report makes to it, are listed under Prior dissemination and corrections, after the Conclusion.

Introduction

Medicare's medical nutrition therapy benefit is limited in who is covered, who may bill, how many hours are covered and what is paid, and each limit sits in a legal instrument that changes by its own procedure. This report asks which instrument holds each limit, what reopening it would require, whether it has been formally reconsidered, and what the benefit's claims show. In short, Congress fixed the covered conditions in statute, while the agency set the hours in 2002 and who may bill preventive dietary counseling in 2011, in coverage determinations it can reconsider without Congress and has not formally reconsidered. Dietitians and others who want to change the benefit need to know which limits take an act of Congress and which the agency can reopen on its own. Earlier work in the dietetics literature placed the hours in a coverage determination set on expert opinion and questioned the covered dose,[106] and the Academy of Nutrition and Dietetics published the request for expanded coverage it made to CMS in 2011;[105] a search of PubMed and OpenAlex on September 29, 2026, found no study that maps every limit to the instrument that holds it, what reopening it would require and whether it has been reconsidered.

A health benefit is seldom defined in one legal instrument. Its scope may be written into statute, its conditions into regulation, its quantities into an agency coverage determination, and its price into an annual payment rule. Each instrument changes by a different procedure: an act of Congress; notice-and-comment rulemaking, whether in a standing regulation or in the payment rule issued every year; or a reconsideration the agency may accept or decline. This report uses "instrument" for the legal form in which a limit is recorded, and "route" for an authority that could change a limit without amending the instrument that holds it. Where a benefit's limits sit should therefore shape what it would take to change any one of them.

The point matters because a benefit whose limits were set once and never reconsidered can look, in retrospect, like a settled legislative judgment, even when many of its boundaries were never put to a vote. Political scientists call one form of change without formal revision drift: a policy's effects change because its terms stay fixed while the circumstances around it move.[1] That literature already treats drift as a property of rules, including the rules that policies set. This report follows one benefit's limits into the separate legal instruments that hold them and asks three descriptive questions: which instrument holds each limit, and what reopening it would require; whether each limit has been formally reconsidered, and when; and what fee-for-service claims for 2010 through 2025 show about the benefit's spending and denials, including where the rules that couple it to diabetes self-management training and set its price bear on them. The study is descriptive and makes no causal or predictive claim.

Susan Bartlett Foote's study of Medicare's failed attempt to promulgate a national coverage rule supplies the necessary caution.[2] A route that administrative law leaves open can be closed in practice. Legal revisability and political revisability are different things, and this report maps only the first. It does not show that a limit held in an administrative instrument would be easy to change.

Legal and health policy scholarship has examined the choice of instrument in benefit design before: the announcement of the Affordable Care Act's essential health benefits policy in a posted agency bulletin, and whether that sidestepped notice and comment;[3] a new Medicare coverage approach introduced through guidance documents posted on the agency's website;[4] and Medicare coverage denials based on manual provisions and other guidance that appeared to contradict the program's own regulations, until a settlement in which the agency agreed to revise its manuals.[5] Work on entrenchment asks why some parts of enacted health legislation endure while others are repealed or scaled back.[6] This report contributes an inventory at the level of a single benefit.

Medicare's medical nutrition therapy benefit (in the rest of this report, the nutrition therapy benefit) suits this inquiry because the documentary record of each step in its design survives, and the steps are few. Congress created the benefit in section 105 of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, effective January 1, 2002, for beneficiaries with diabetes or a renal disease.[7] The coverage provision has not been amended since. Allowed charges for the benefit's services on fee-for-service physician and supplier claims were about $13.4 million in

2025. Since the benefit was created in 2000, bills to broaden it under the Medical Nutrition Therapy Act titles have been introduced 16 times without enactment; seven earlier bills, the first in 1995, sought to create the coverage, which section 105 then did. The clinical case for expansion is not the subject here. The number of hours the benefit covers and its restriction on who may bill preventive dietary counseling are set not in statute but in national coverage determinations, the agency's statements of whether and on what terms an item or service is covered nationwide, which the agency could reconsider without Congress, although independent billing by dietitians would also depend on qualification and payment rules written for medical nutrition therapy. In this report a determination has been "formally reconsidered" when CMS has opened a national coverage analysis of it, as recorded in its Medicare Coverage Database. By that test, as of September 11, 2026, the hours had not been formally reconsidered since the original analysis of 2002, or the counseling determinations since their original analyses of 2011.

This report does three things. It reconstructs from primary documents how each of the benefit's limits was set, and identifies the instrument that now holds each one (**Table 1**). It measures what the benefit has done over 16 years of claims, including a denial pattern in its group service that its comparator, the group service of the adjacent diabetes self-management training benefit, does not share. And it sets out the standard and procedure for reopening such a determination. It does not argue that any particular decision was wrong on the merits.

On this record the answer to the first two questions is mixed. The price moves with each year's payment rule, through relative values the agency sets and a conversion factor whose annual update Congress fixes in statute; Congress raised Medicare's share of payment for these services to 100 percent from 2011; and the agency amended the regulation's referral and renal eligibility terms in its payment rule for 2022 and removed the glucose-test criteria from the regulation's definition of diabetes in its payment rule for 2024. The covered conditions, held in statute, and the limits on hours, held in a coverage determination for this benefit and in a regulation for the comparison benefit, have stood since they were set. Whether the instrument that holds a limit bears on whether it is reopened is a question two cases cannot settle.

Research questions and hypotheses. The report asks which legal instrument holds each limit on the benefit (the covered diagnoses, the referring practitioner, who may bill, the hours covered and the price); what reopening each limit would require; whether each limit has been formally reconsidered, and when; and what fee-for-service claims for 2010 to 2025 show about the benefit's spending and denials. These are documentary and descriptive questions, and the report answers them descriptively. The claims question is answered descriptively for 2010 to 2025; its central pattern, the group-code denial gap, is also registered as a prediction for the 2026 claims (Denials).

Documentary and legal sources

A limit, for this inventory, is a national legal term that restricts who is covered, who may furnish or bill a service, how much of it is covered, or at what price it is paid. For each limit the inventory identifies the instrument that holds it and the procedure that would change it, from the text of the United States Code, the Code of Federal Regulations and its annual editions, the eCFR and its version histories, the Federal Register, the Medicare Coverage Database and its national coverage analysis reports, CMS transmittals and program manuals, and the Government Publishing Office's bill texts, bill status files and Congressional Record, each read at the source that issues it in August and September 2026; the readings that could change before release, for the coverage determinations, the two current bills and a final physician fee schedule rule for 2027, were repeated on September 29, 2026 (record of the re-check: task R3-T20), except that the coverage analyses behind the two 2011 counseling determinations (not the determinations themselves) could not be re-read that day, so what the report says about those analyses rests on its reading of September 11, 2026. A determination is counted as formally reconsidered when a national coverage analysis of it has been opened in the Medicare Coverage Database; CMS's own "last reviewed" dates are quoted as CMS states them and are not counted as reconsiderations. The comparison benefit, diabetes self-management training, is used because it is coupled to nutrition therapy by rule, serves an overlapping population and holds its own hours in a different instrument; the claims comparator is set out under Claims data and methods.

The national rules considered and excluded, with the reason for each, are listed in Appendix C.

How the limits were set

The expert review recommended coverage on referral

The Balanced Budget Act of 1997 directed the Secretary of Health and Human Services to request that the National Academy of Sciences analyze the expansion of preventive and other Medicare benefits, including their costs to the program, and required the resulting report to address at least five named benefits, the first of them "[n]utrition therapy services, including … the provision of such services by a registered dietitian."[8] The Institute of Medicine report that answered the request appeared in 2000.[9]

Its first recommendation was structural:

> Based on the high prevalence of individuals with conditions for which nutrition therapy was found to be of benefit, nutrition therapy, upon referral by a physician, should be a reimbursable benefit for Medicare beneficiaries.[10]

The committee found consistent evidence, from limited data, that nutrition therapy is effective as part of the management of dyslipidemia, hypertension, heart failure, diabetes, and kidney failure, and found the data lacking or insufficient for cancer and osteoporosis.[11] It declined to tie coverage to that list, and said why:

> [I]t may be administratively more efficient for the Health Care Financing Administration (HCFA) to base coverage on physician referral rather than on specific diagnoses…. [B]y basing nutrition therapy on referral from a physician, it will prevent self-referral for conditions for which evidence of efficacy is not available. For these reasons it is recommended to Congress that reimbursement for nutrition therapy be based on physician referral rather than on a specific medical condition.[12]

HCFA became the Centers for Medicare & Medicaid Services (CMS) in 2001.[13] Two further passages bear on what followed. The committee described the registered dietitian as "currently the single identifiable group with standardized education, clinical training, continuing education, and national credentialing requirements necessary to be directly reimbursed as a provider of nutrition therapy."[14] And it made no recommendation on the number of visits "because it is within the appropriate role of HCFA to establish reasonable limits in accordance with accepted practice," leaving that limit to the agency.[15] As its mandate required, the committee also estimated costs: $1.43 billion as the Medicare portion of estimated charges for 2000 through 2004, with low and high utilization scenarios of $873 million and $2.63 billion, undiscounted; after adjusting for copayments and a potential increase in premiums, its economic analysis put the baseline at $1.069 billion, within a range of $740 million to $1.97 billion.[16] These estimates are not compared here with the claims series.

Congress enacted coverage by diagnosis

Section 105 covered "medical nutrition therapy services … in the case of a beneficiary with diabetes or a renal disease," which correspond to the diabetes and kidney failure the committee had listed among the five conditions for which it found nutrition therapy effective as part of management, and defined those services as furnished "pursuant to a referral by a physician." It kept the committee's referral condition and added the diagnostic limit the committee had recommended against.[17] The materials that accompanied the bill do not say why. The conference report explains the provision without giving a reason for the diagnostic limit: it says the provision "would establish, effective January 1, 2002, Medicare coverage for medical nutrition therapy services for beneficiaries who have diabetes or a renal disease," and then describes the definition, the payment rate, the assignment requirement and the report to Congress (H.R. Rep. No. 106-1033, at 877 (2000) (Conf. Rep.); the same paragraph appears at H.R. Rep. No. 106-1004, at 528 (2000) (Conf. Rep.) and at 146 Cong. Rec. H12378 (daily ed. Dec. 15, 2000)). A search on September 15, 2026, of the Government Publishing Office's collections for the 106th Congress, for the phrase "medical nutrition therapy" in committee and conference reports, published hearings, the Congressional Record and bill texts, returned 65 documents. Of the 65 that search returned, each read at every occurrence of the phrase, none states a reason for covering diabetes and renal disease rather than coverage on referral. Two things those texts do show. The bill the Committee on Commerce reported on October 30, 2000, would instead have run a five-year demonstration in five states, with no diagnostic limit, and the committee's explanation of it recites the committee's recommendation and the five conditions it found nutrition therapy effective for, without addressing a limit by diagnosis (H.R. Rep. No. 106-1019, pt. 1, at 38 (2000)). Bills earlier in 2000 had already limited coverage by diagnosis, over a wider list: the Medicare Wellness Act of 2000 (H.R. 3887, introduced March 9, 2000) and S. 3165 (introduced October 5, 2000) would have covered a beneficiary "with diabetes, a cardiovascular disease … or a renal disease." The narrower form "diabetes or a renal disease" appears in the bill texts from October 25, 2000 and is carried forward into the enacted section, unexplained in each. The Secretary was given authority to add criteria for coverage, not conditions.[18]

Section 105 provided for payment for services furnished by a class of practitioners defined by its own standard: a baccalaureate or higher degree with completion of an accredited nutrition or dietetics program, at least 900 hours of supervised dietetics practice, and state licensure or certification (or, where a state does not license or certify, criteria the Secretary sets), and it extended the category to "nutrition professional" as well as registered dietitian.[19] That standard is not the committee's. The committee had identified the registered dietitian as the group whose "standardized education, clinical training, continuing education, and national credentialing requirements" fitted it to be directly reimbursed (Institute of Medicine, *Role of Nutrition*, 313, 315). Congress wrote a different test: an accredited degree, 900 hours of supervised practice, and state licensure or certification, or, in a state that does not license or certify, criteria the Secretary sets; and it opened the category to the nutrition professional as well as the registered dietitian, with the degree and practice requirements waived for anyone already licensed or certified by a state on the date of enactment. A search of 42 U.S.C. § 1395x at uscode.house.gov on September 25, 2026, found no occurrence of the phrase "Commission on Dietetic Registration" (uscode.house.gov, current through Pub. L. 119-103, read September 15, 2026). The national credential enters through the regulation instead, as Table 1 records. Section 105(c) set payment at 80 percent of the lesser of the actual charge or 85 percent of the physician fee schedule amount for the same service; since 2011 the statute has raised the 80 percent to 100 percent where the services are recommended with a grade of A or B by the US Preventive Services Task Force for any indication or population and are appropriate for the individual.[20]

The same section required a report:

> Not later than July 1, 2003, the Secretary of Health and Human Services shall submit to Congress a report that contains recommendations with respect to the expansion to other medicare beneficiary populations of the medical nutrition therapy services benefit….[21]

The required report made no recommendations

The report was transmitted to the House and referred to the Committee on Energy and Commerce on April 1, 2004, 275 days after the statutory deadline; the Congressional Record lists it as "[a] letter from the Secretary, Department of Health and Human Services, transmitting a report entitled 'Medical Nutrition Therapy.'"[22] The report reviews the literature under four headings: undernutrition, including nutrition therapy for cancer patients with undernutrition; cardiovascular disease; osteoporosis; and end-stage renal disease and dialysis. Its sections are an introduction, a summary, background, the diseases reviewed, and a bibliography. It has no recommendations section.[23]

On the evidence it reviewed, the report concluded:

> Our review suggests that there may be a benefit resulting from dietary modification using medical nutrition therapy for patients with hyperlipidemia and hypertension. Supportive studies were not found for patients with heart failure…. A large number of randomly controlled trials using dietitians or nutritionists demonstrated that dietary modification was effective in treating hyperlipidemia and hypertension. However, the studies were not designed to show if dietitian/nutritionist interventions were more effective than interventions provided by physicians during office visits. Two articles did state that there was evidence that dietary modification may be more successful when patients are counseled by dietitians/nutritionists (medical nutrition therapy) in addition to receiving dietary counseling routinely provided in physician office visits.[24]

The summary continues that supportive evidence was not found for dietary modification in treating osteoporosis or undernutrition in cancer patients, that nutrition therapy furnished in dialysis centers was comparable to that furnished under the fee-for-service benefit, and that the American Dietetic Association had recommended expanding the benefit and giving the Department authority to expand it further through the national coverage determination process.[25] The report thus made findings on the conditions it reviewed, and then observed that the studies were not designed to show whether interventions by dietitians or nutritionists were more effective than those provided by physicians. Section 105(f) asked for recommendations on expanding the benefit to other beneficiary populations; it did not ask for that comparison, and the report made no recommendation on either question.

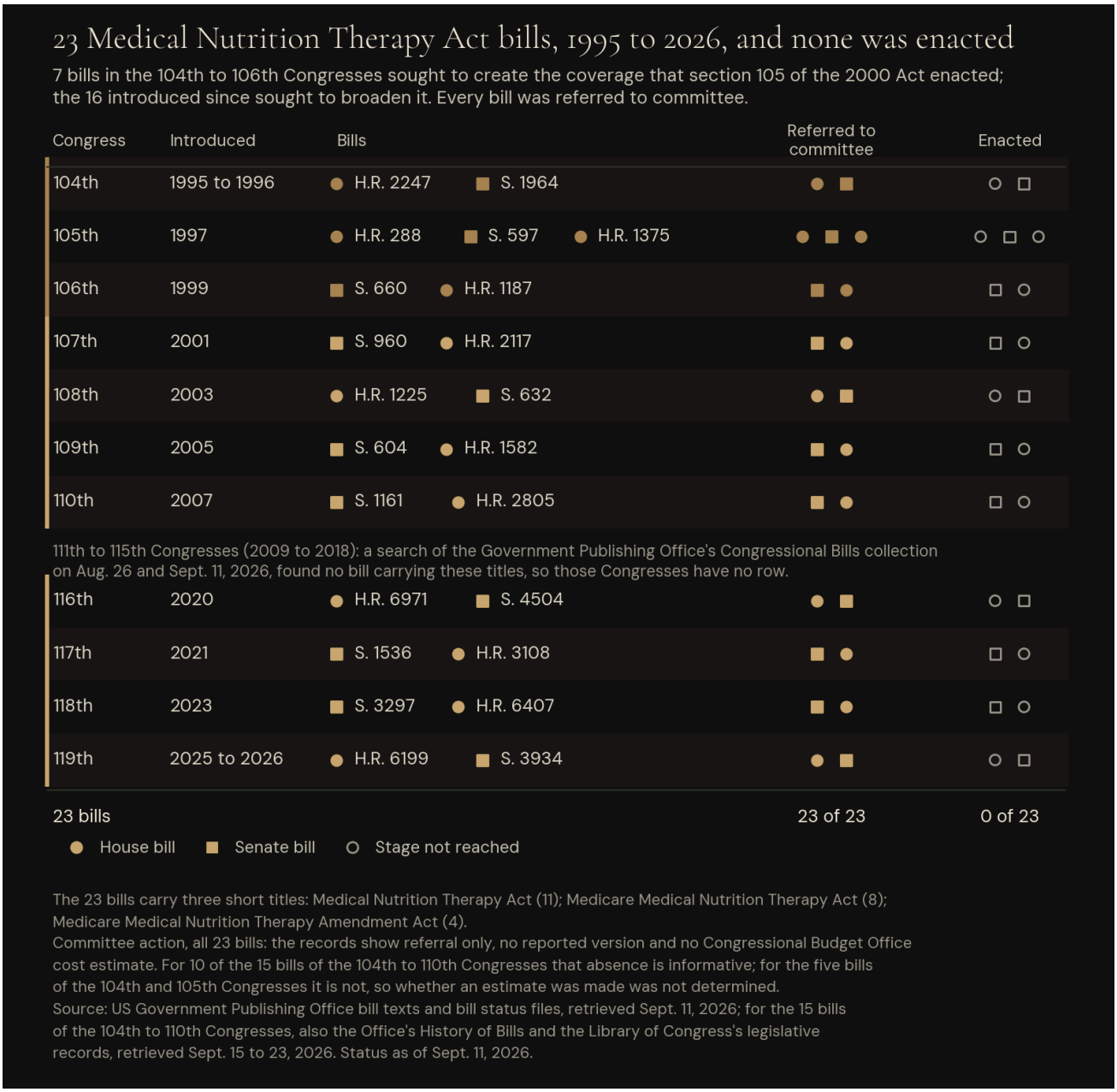
The report also describes the committee's recommendation in two ways. Its background section describes the recommendation as making nutrition therapy "a reimbursable benefit for Medicare beneficiaries." Its introduction describes it differently: it says the committee "recommended that MNT should be covered by the Medicare program for the five conditions identified in its report," which it names as undernutrition, cardiovascular disease, diabetes mellitus, renal disease, and osteoporosis.[26] The committee's first recommendation named no conditions; it tied coverage to physician referral. The Department's five correspond to the condition groups of the committee's summary table of evidence, which rates the evidence for undernutrition as supportive and, for calcium and vitamin D intake, the evidence for osteoporosis as strongly supportive, while the discussion accompanying the first recommendation places osteoporosis among the conditions for which data were lacking or insufficient to support a recommendation for nutrition therapy. The introduction thus describes a recommendation for coverage on physician referral as one for coverage of listed conditions. The difference matters to the inventory: the Department's condition-based description matches the diagnostic design Congress enacted, not the referral design the committee recommended.

Expansion was pursued in Congress

Legislation to broaden the benefit continued after it was enacted. Counting from 1995, before the benefit existed, bills titled the Medical Nutrition Therapy Act, the Medicare Medical Nutrition Therapy Act, or the Medicare Medical Nutrition Therapy Amendment Act have been introduced 23 times in 11 Congresses, 16 of them after section 105 became law, and none has been enacted (**Figure 1**).[27] For the eight bills introduced since 2020, whose bill status records (GovInfo bulk data, read September 11, 2026) were examined, none was reported by a committee and no Congressional Budget Office cost estimate is listed for any of them. The records of the 15 earlier bills, introduced in the 104th through 110th Congresses (1995 through 2008), show no committee action beyond referral. A search on September 15 to 23, 2026, found no reported version of any of the 15 in the Government Publishing Office's Congressional Bills collection, and the History of Bills entry for each, in the annual volumes for 1995 through 2008, records nothing beyond introduction, referral to committee, cosponsors and, for five of the Senate bills, the printing of the bill's text in the Congressional Record. In the Library of Congress's legislative records for all 15, referral to a committee or subcommittee is the only committee action, and no Congressional Budget Office cost estimate is listed. For 10 of the 15 that absence is informative, because those records list estimates for other bills of the same Congresses. For the five bills of the 104th and 105th Congresses it is not: those records list no estimate for the four bills of those Congresses that were reported by a committee and were used to test the field, so whether the Congressional Budget Office estimated the cost of those five was not determined. (US Government Publishing Office, History of Bills, volumes 141 to 154, and Congressional Bills collection; Library of Congress legislative records through the congress.gov application programming interface; retrieved September 15 to 23, 2026.) The most recent are H.R. 6199, introduced November 20, 2025, and S. 3934, introduced February 26, 2026; as of September 11, 2026, neither had advanced beyond referral to committee.[28] A search of the Government Publishing Office's Congressional Bills collection (August 26 and September 11, 2026) found no bill carrying any of those titles in the 111th through 115th Congresses (2009 through 2018), although bills on related subjects were introduced.[29] Three series of bills in those Congresses would have changed the benefit or extended its services. The Preventing Diabetes in Medicare Act was introduced seven times across all five Congresses, from H.R. 2590 on May 21, 2009 to H.R. 3124 on June 29, 2017; each would have extended coverage under section 1861(s)(2)(V) to beneficiaries with pre-diabetes or risk factors for type 2 diabetes. The Fit for Life Act was introduced three times, in the 111th through 113th Congresses; it would have given states a Medicaid and child health insurance option to cover medical nutrition therapy services as section 1861(vv)(1) defines them, leaving the Medicare benefit as it stood. The Expanding Access to Diabetes Self-Management Training Act followed twice in 2018; it would have struck the condition in section 1861(s)(2)(V)(i) that withholds nutrition therapy from a beneficiary who has received diabetes self-management training within a period the Secretary sets. None of the twelve was enacted, and the status records retrieved on September 15, 2026, show no action beyond referral to committee. Why advocates changed vehicles is not established by these data. (Counts re-derived on September 15, 2026, from the Government Publishing Office's bill status records and bill texts for the 111th through 115th Congresses.)

Two other bill series in the current Congress seek, by statute, changes to limits this report locates in administrative instruments; they are recorded in Appendix C.

Figure 1. Medical Nutrition Therapy Act bills by Congress, 1995 to 2026. Seven of the 23 bills, in the 104th through 106th Congresses, sought to create the coverage that section 105 of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 enacted in the 106th Congress; the 16 introduced since sought to broaden it, and none has been enacted. The 23 bills carry three short titles: the Medical Nutrition Therapy Act (11 bills), the Medicare Medical Nutrition Therapy Act (eight), and the Medicare Medical Nutrition Therapy Amendment Act (four). No bill carrying these titles was found in the 111th through 115th Congresses (searches of the Government Publishing Office's Congressional Bills collection, August 26 and September 11, 2026), so those Congresses have no row. For the eight bills introduced since 2020, the records show no committee report and no Congressional Budget Office (CBO) cost estimate. Source: US Government Publishing Office bill texts and bill status files, retrieved September 11, 2026. The figure was produced by code written with the assistance of an AI tool (see How this report was checked).



23 Medical Nutrition Therapy Act bills, 1995 to 2026, in 11 Congresses: 7 sought to create the coverage and 16 to broaden it. All 23 were referred to committee and none was enacted.

A long description of Figure 1, listing every plotted value, is in the accessibility descriptions in this report's data record.

The agency extended dietary counseling without dietitian billing

Section 101 of the Medicare Improvements for Patients and Providers Act of 2008 added section 1861(ddd) to the Social Security Act, effective January 1, 2009. Under it the Secretary may cover, through the national coverage determination process, "additional preventive services" that identify medical conditions or risk factors and that the Secretary determines are reasonable and necessary for the prevention or early detection of illness or disability, "recommended with a grade of A or B by the United States Preventive Services Task Force," and appropriate for beneficiaries.[32]

CMS used it five times in October and November 2011: National Coverage Determinations 210.8 and 210.9 took effect on October 14, 2011, 210.10 and 210.11 on November 8, 2011, and 210.12 on November 29, 2011. Two of the five, 210.11 and 210.12, reach dietary counseling. This report calls them the counseling determinations. National Coverage Determination 210.11 covers intensive behavioral therapy for cardiovascular disease, including "intensive behavioral counseling to promote a healthy diet for adults with hyperlipidemia, hypertension, advancing age, and other known risk factors for cardiovascular- and diet-related chronic disease." National Coverage Determination 210.12 covers intensive behavioral therapy for obesity, including "[d]ietary (nutritional) assessment" and "[i]ntensive behavioral counseling and behavioral therapy to promote sustained weight loss through high intensity interventions on diet and exercise."[33]

The recommendation underlying the dietary component of 210.11 was the Task Force's January 2003 statement, which the cardiovascular decision memorandum quotes verbatim:

> The USPSTF recommends intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease. Intensive counseling can be delivered by primary care clinicians or by referral to other specialists, such as nutritionists or dietitians. Grade: B recommendation.[34]

Determinations 210.11 and 210.12 both cover the counseling only when it is furnished by "a qualified primary care physician or other primary care practitioner" "in a primary care setting," defined by cross-reference to sections 1833(u)(6) and 1833(x)(2)(A)(i) of the Social Security Act: general practitioners, family practice practitioners, general internists, and obstetricians or gynecologists under the first; and physicians with a primary specialty designation in family, internal, geriatric, or pediatric medicine, together with nurse practitioners, clinical nurse specialists, and physician assistants, under the second.[35] Registered dietitians are not among them.

The distinction that matters is between furnishing and billing. A registered dietitian may furnish this counseling as auxiliary personnel incident to a primary care practitioner's service, under that practitioner's direct supervision, with the practitioner billing.[36] That supervision may now be virtual. Under 42 C.F.R. § 410.26(a)(2), as amended effective January 1, 2026 (90 Fed. Reg. 49,266, 50,007 (Nov. 5, 2025)) and corrected effective March 12, 2026, applicable from January 1, 2026 (91 Fed. Reg. 12,071, 12,079 (Mar. 12, 2026)), the presence of the physician or other practitioner required for direct supervision "may include virtual presence through audio/video real-time communications technology (excluding audio-only) for services without a 010 or 090 global surgery indicator" (eCFR, current as of September 11, 2026). The text in force in 2025 allowed virtual presence through December 31, 2025 and, after that date, only for two categories of service (42 C.F.R. §§ 410.26(a)(2), 410.32(b)(3)(ii) (2025); 89 Fed. Reg. 97,710, 98,555 (Dec. 9, 2024)). Either way, the dietitian furnishes the service and the practitioner bills. The obesity memorandum says so expressly; the cardiovascular memorandum says that professionals working under a primary care physician's direct supervision may furnish care, with Medicare paying the physician. The determinations did not extend coverage to the second route the quoted recommendation describes, referral to other specialists such as nutritionists or dietitians. The recommendation speaks to who may deliver counseling, not to who may bill for it; the obesity memorandum states that primary care practitioners may refer beneficiaries to other practitioners or settings for counseling, while "coverage remains only in the primary care setting."[37]

Commenters raised it. The obesity memorandum records that "31 commenters requested the inclusion of registered dietitians and dietitians; 16 requested the inclusion of mental/behavioral health providers and specialists; six requested the inclusion of nutritionists," alongside about 195 comments asking that psychologists be included.[38] Its response rests on the coordinating role of primary care:

> [W]e believe it is important that these preventive services should be furnished in a coordinated approach as part of a comprehensive prevention plan within the context of the patient's total health care. Primary care practitioners are characterized by their coordination of a patient's comprehensive healthcare needs…. Other provider specialties may provide patient care in other settings but do not offer care in the context of being the coordinator of the patient's healthcare needs, not limited by problem origin or diagnosis.[39]

The cardiovascular memorandum answered a related request on authority rather than policy. Responding to a commenter who asked that referrals for medical nutrition therapy be included, it said that coverage of that benefit is limited by statute and regulation and that "Congressional action would be necessary in order to expand the medical nutrition therapy benefit to other medical indications."[40] That statement is correct as to section 1861(s)(2)(V); a separate authority, section 1834(n) of the Social Security Act, is taken up below. It does not reach the separate question of who may bill for counseling covered under section 1861(ddd), which is what the determinations decided.

The hours and the counseling determinations have not been formally reconsidered

Neither 210.11 nor 210.12 has been formally reconsidered. Each states that it was last reviewed in November 2011, each has a single national coverage analysis in CMS's coverage database, and none of the analyses open in September 2026 concerns either.[41] The Task Force has since replaced its 2003 recommendation twice, in August 2014 and in November 2020, each time at grade B for a redefined population, and an update of the topic is in progress.[42] The 2020 statement names "nurses, registered dietitians, nutritionists, exercise specialists" among the professionals who can deliver the interventions, notes that many of the studied interventions were "carried out by nonphysicians," and reports a median of 12 contacts and about six hours of contact time over 6 to 18 months.[43] Those figures describe behavioral counseling for adults with cardiovascular risk factors, not the separate nutrition therapy benefit for diabetes or renal disease. The obesity recommendation underlying 210.12 has also been replaced twice, in 2012 and 2018, each time at grade B.[44]

National Coverage Determination 180.1, which sets the nutrition therapy benefit's hours, basic coverage of three in the first year and two in each year after, with additional hours when a physician determines that a change in diagnosis, medical condition, or treatment regimen requires them during an episode of care, has had one new version, effective January 1, 2022, issued through a change request conforming it to that year's physician fee schedule rule. That rule, like the payment rules for 2004, 2008, and 2024, also amended the benefit's regulations. Stating that it acted to improve access to and use of the benefit, it removed the requirement that the referring physician be the treating physician and changed the regulation's definition of chronic renal insufficiency from a glomerular filtration rate of 13 to 50 to one of 15 to 59; it did not revisit the hours.[45] Its text now states that it was last reviewed in December 2021, but the coverage database records no national coverage analysis of it after the original, decided in February 2002, and its three-hour and two-hour limits were carried forward unchanged.[46] Whether the Department restated or revisited the 2004 report's assessment before Congress was searched; the search is reported in Appendix C.

The public record cannot show that no one has asked. CMS posts the reconsideration requests it accepts and answers those it declines by letter.[47] What the record shows, as of September 11, 2026, is that none of Determinations 180.1, 210.11 and 210.12 has been formally reconsidered.

The record does show a request. The American Dietetic Association (now the Academy of Nutrition and Dietetics) submitted to CMS on July 29, 2011, a request "to expand coverage of medical nutrition therapy (MNT) for specific diseases as part of the CMS National Coverage Determination (NCD) process," and reports that, in informal discussions, CMS asked it to respond instead to the proposed decision memoranda on intensive behavioral counseling for cardiovascular disease and obesity, which it did in September 2011.[105] A search of the coverage database on September 29, 2026, found no national coverage analysis with "nutrition" in its title other than the 2002 analysis behind 180.1. Writing in the Academy's journal in 2024, Hand and Schofield noted that the hours were set on protocols the Academy had developed from expert opinion, because CMS noted a lack of published articles on the topic at the time, and argued that the covered dose may be inadequate to achieve the desired nutrition outcomes and payer cost savings.[106]

What the claims record shows

Claims data and methods

Spending and denial figures are this report's tabulation of the CMS Physician/Supplier Procedure Summary for calendar years 2010 through 2025, covering the five nutrition therapy codes (Current Procedural Terminology codes 97802, 97803, and 97804, and Healthcare Common Procedure Coding System codes G0270 and G0271) and, as a comparison benefit, the two diabetes self-management training codes, G0108 and G0109.[48] The comparator for group nutrition therapy (97804) is group diabetes self-management training (G0109): both are group services billed in 30-minute units, the two benefits are coupled by rule (see A competing explanation, and its limits), and both are billed on the same carrier claims.[49] The series starts in 2010, the first year the procedure summary is published on data.cms.gov; earlier years were not used (CMS data catalog entry for the procedure summary, data.cms.gov, temporal coverage 2010 to 2025, as of September 15, 2026). The procedure summary covers fee-for-service Part B carrier claims. It does not include institutional claims, on which a hospital outpatient department may bill nutrition therapy when dietitians reassign their benefits to the hospital, and on which hospitals, critical access hospitals, federally qualified health centers, and skilled nursing facilities bill diabetes self-management training.[50] Because institutional billing of diabetes self-management training is excluded, carrier-billed G0109 is a residual of that benefit's use, not all of it. Each year was retrieved twice in September 2026, as the published annual file and through the CMS data application programming interface, and the two agree row for row on every quantity used here after number formats are normalized; the 2020 file as posted in November 2021 also matches the interface today, and the 2021 file now served was re-posted on May 23, 2024. The procedure summary's methodology states that "a simulated 18-month window is created" and that "[o]nly final action claims that were incurred in the previous year are included," but it does not give the window's dates.[51] A denied claim is not resubmitted: it is appealed, or reopened at the contractor's discretion.[52] A denial reversed after the window closed would therefore still appear in the file as a denial, and the file cannot show how many denials were later reversed. Dollars are deflated with Consumer Price Index for All Urban Consumers annual averages, base 2025, and enrollment denominators are from CMS Medicare Monthly Enrollment.[53] Allowed charges are the amounts Medicare recognizes for payment, including the beneficiary's share. Data retrieval, tabulation, and checking were done with the assistance of an artificial intelligence (AI) tool, Claude (Anthropic; model Claude Opus 5, used through Claude Code), in August and September 2026: it wrote and ran the code that retrieved and tabulated the files, and every figure drawn from those files was then recomputed by separate code. Its other uses are described under How this report was checked.

The files publish no count below 11 and no zero; a count from 0 to 10 appears as a blank (2010–2020) or an asterisk (2021–2025). Each unpublished count is treated here as at most 10, the file's stated suppression threshold. Published counts include fractional values and the smallest published value is 11.0, so an unpublished value between 10 and 11 cannot be ruled out; recomputing every bound with a cap of 11 leaves every conclusion in this report unchanged except that at a cap of 11 the lowest 97802 rate no longer exceeds the highest G0108 rate in 2020 (it falls short by 0.5 points), which removes that year from 97802's years on the bounds and from the years in which the group-code difference exceeds 97802's on the bounds (Table 2, Panels B and C). At a cap of 11 the lowest 97804 rate still exceeds the highest G0109 rate in every year, by 8.1 points in 2010 and 34.8 in 2025; the 2019 to 2025 change in that gap runs from a 6.4-point narrowing to a 33.9-point widening and is still not established, while the change since 2010 is still at least 4.0 points; Appendix A gives the denial rates, their differences, and the gap and its change at both caps. In the two group codes compared below, 46 to 75 percent of rows in a given year carry no published denial count. Denial rates are therefore reported on a published-cell estimator, which counts every unpublished denial as zero and drops rows whose submitted count is unpublished, together with their exact bounds, the lowest and highest rates consistent with the unpublished cells. Because it drops rows, the rate it gives can lie above the lowest rate the file allows, which is why the bounds are reported with it. Payment amounts are published in every row. Allowed charges go unpublished in the same small cells, which carried 0.24 to 0.80 percent of the benefit's allowed charges in each year, measured by what Medicare paid in them. Counts are services as submitted; for the time-based group codes, 97804, billed "each 30 minutes," and G0109, billed "per 30 minutes," a service is a unit of time.[54] The file records no reason for denial. It records a carrier number, which identifies the Medicare contractor jurisdiction that processed a claim; a pricing locality, a geographic area within which fee schedule amounts are adjusted; a place-of-service code; and billing modifiers. It does not identify billing practitioners or organizations. Services are counted as coded as telehealth when they carry a telehealth place of service or modifier (place of service 02 or 10, or modifier 95 or GT in either of the two modifier positions the file records). In CMS's place-of-service code set, 02 is telehealth provided other than in the patient's home and 10 is telehealth provided in the patient's home; code 10 took effect on January 1, 2022 and became available to Medicare on April 1, 2022, the same dates from which 02 carries its present description.[55] For 2024, CMS's claims manual limits Medicare telehealth billing to places of service 02 and 10, paired with modifier 95 for audio and video or modifier 93 for audio-only services, and the same manual records the elimination of modifier GT for telehealth services from January 2, 2018, although critical access hospitals that have elected payment Method II still submit telehealth claims with it.[56] Modifiers 93, FQ and GQ, which also appear in the file, are not in the definition; adding them moves no rate, bound or share in Tables 4 and 5 by more than 0.7 percentage points. The definition records how claims were coded, not how services were delivered.

Spending

Allowed charges for the five nutrition therapy codes, summed over published cells, totaled $13,405,259 in 2025. In constant 2025 dollars they peaked in 2019 at $19.7 million, and the 2025 figure is 31.8 percent below that peak. Fee-for-service Part B enrollment fell 15.0 percent over the same years as enrollment in Medicare Advantage and other health plans grew, and per fee-for-service enrollee the decline in constant dollars is 19.8 percent (19.5 percent if the unpublished cells are counted at what Medicare paid in them).[57]

The decline is predominantly a payment-rate effect. On the published cells, 76 percent of the decline since 2019 is price and 24 percent volume, and all of the decline since 2016 is price; allowing the unpublished cells their full range, price accounts for at least 58 percent of the decline since 2019 and at least 74 percent of it since 2016. Allowed services rose 42.3 percent between 2010 and 2025 on the published cells (29.7 to 58.4 percent across the bounds). Nothing in these series supports an inference about demand or access.

A confound runs against the per-enrollee result. The eligible population is people with diabetes or renal disease, and section 17006 of the 21st Century Cures Act opened Medicare Advantage to beneficiaries with end-stage renal disease for plan years beginning on or after January 1, 2021.[60] If eligible renal beneficiaries left fee-for-service faster than enrollment fell overall, part of the per-enrollee decline reflects a shrinking eligible population rather than less service to it. The overlap is partial: the statute excludes beneficiaries receiving maintenance dialysis from the benefit, and the regulation defines renal disease as chronic renal insufficiency, end-stage renal disease when dialysis is not received, or the 36 months after a kidney transplant, so much of the population that section 17006 moved was never eligible.[61] The procedure summary cannot bound the remainder. The same assumption applies to beneficiaries with diabetes: the per-enrollee figure assumes they left fee-for-service at the rate of enrollment overall, which these data cannot test.

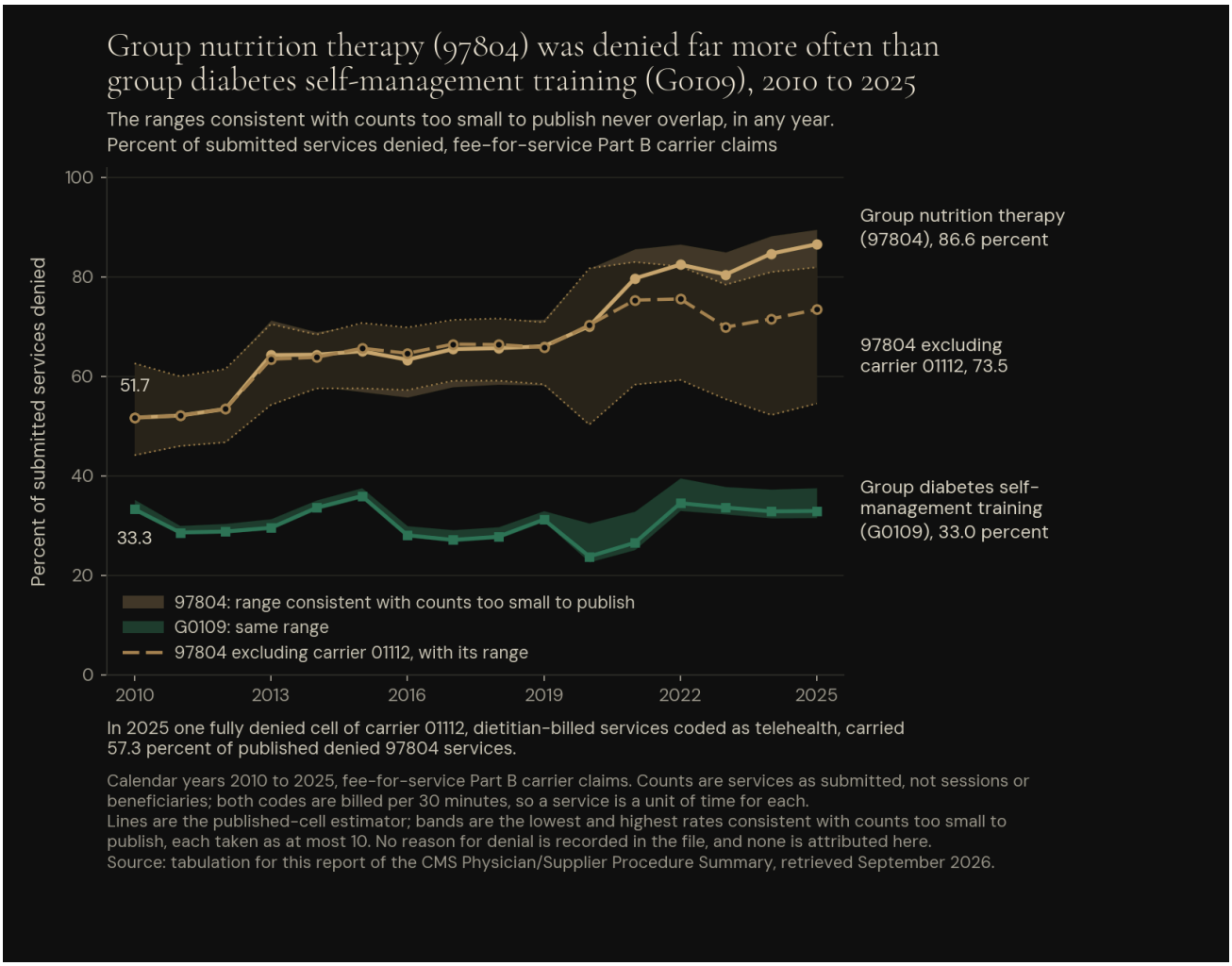
A second CMS product, which counts beneficiaries and billing providers, is summarized in Appendix C: in 2024 between 48,410 and 49,978 distinct beneficiaries received initial individual nutrition therapy (code 97802) on fee-for-service non-institutional claims, a floor, because the product excludes institutional claims and Medicare Advantage.

Denials

Across all five codes, 44.0 percent of submitted services were denied in 2025, up from 30.0 percent in 2010, on the published-cell estimator (41.8 to 47.6 percent in 2025 and 28.4 to 34.8 percent in 2010 across the bounds). Diabetes self-management training moved in the same direction, from 31.8 percent to 40.1 percent (30.7 to 35.7 percent and 37.3 to 45.6 percent across the bounds), so the all-codes figure supports no claim specific to nutrition therapy.

The group codes diverge (**Figure 2**). Group nutrition therapy, code 97804, carried at least 12,087 submitted services in 2010, with at least 6,250 denied, 51.7 percent on the published-cell estimator (44.2 to 62.6 percent across the bounds); in 2025 it carried at least 17,874, with at least 15,474 denied, 86.6 percent (73.9 to 89.5 percent across the bounds). Group diabetes self-management training, code G0109, carried at least 204,528 submitted services in 2010, with at least 68,128 denied, 33.3 percent (32.9 to 35.3 percent); in 2025 it carried at least 57,269, with at least 18,874 denied, 33.0 percent (31.6 to 37.6 percent), having ranged between 23.8 and 36.0 percent on the published-cell estimator in the years between. The volumes differ in scale and moved in opposite directions: published submitted services rose 47.9 percent for 97804 (26.3 to 73.3 percent across the bounds) and fell 72.0 percent for G0109 (70.8 to 72.4 percent). The gap between the codes on that estimator is positive in all 16 years, from 18.4 to 53.6 percentage points, and it survives the bounds: the lowest 97804 rate consistent with the file exceeds the highest G0109 rate in every year, by 8.9 points in 2010 and 36.3 points in 2025.

Figure 2. Share of submitted services denied, group nutrition therapy (code 97804) and group diabetes self-management training (code G0109), calendar years 2010 to 2025, fee-for-service Part B carrier claims. Lines show the published-cell estimator, which counts every unpublished denial count as zero and drops rows whose submitted count is unpublished. Shaded bands show the lowest and highest rates consistent with cells too small to publish, treating each unpublished count as at most 10; the two bands do not overlap in any year. A second 97804 line excludes carrier 01112. In 2025 one fully denied cell of that contractor, dietitian-billed services coded as telehealth, carried 57.3 percent of published denied 97804 services; excluding that contractor, the 2025 rate for 97804 is 73.5 percent (54.6 to 81.9 percent across the bounds). Counts are services as submitted, not sessions or beneficiaries; both codes are billed per 30 minutes, so a service is a unit of time for each. The file records no reason for denial. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, retrieved September 2026. The figure was produced by code written with the assistance of an AI tool (see How this report was checked).



Group nutrition therapy (97804) denials rose from 51.7 to 86.6 percent of submitted services, 2010 to 2025; group training (G0109) stayed near a third. Excluding carrier 01112, whose fully denied 2025 cell held 57.3 percent of denials, 2025 is 73.5.

A long description of Figure 2, listing every plotted value, is in the accessibility descriptions in this report's data record.

Robustness of the group-code gap. Without the rows billed with a notice of expected denial (modifier GA, GX, GY or GZ), the gap remains positive in all 16 years, on the published-cell estimator and across the bounds; among dietitian-billed services without those rows, it is positive on the bounds in every year but 2010; and with carrier 01112 excluded from both codes it remains positive in every year on the published-cell estimator. What that estimator shows of the gap's rise since 2019 sits in claims coded as telehealth, most of them in one contractor's jurisdiction, and the bounds allow anything from a 4.4-point narrowing to a 32.7-point widening, so that change is not established (Appendix C, Tables 3 to 5).

The individual codes diverge far less. On the published-cell estimator, individual nutrition therapy code 97803 was denied more often than individual self-management training (G0108) in all 16 years, by 2.5 to 20.5 points, but its lowest rate consistent with the file exceeds G0108's highest in only 12 of them; code 97802 exceeded G0108 in 12 of the 16 years, and on the bounds only from 2015 through 2022 (and not in 2020 if an unpublished count may reach 11) (**Table 2**). Pooled, individual nutrition therapy (codes 97802 and 97803 together) was denied more often than individual self-management training in 15 of the 16 years on the published-cell estimator, by less than the group codes differ, and robustly on the bounds only from 2014 through 2022. Individual nutrition therapy is therefore denied somewhat more often than individual training but by far less than the group difference, which exceeds it in every year on that estimator and in every year but 2020 on the bounds, and not robustly on the bounds in several years: the divergence is concentrated in the group code, not confined to it.

Table 2. Submitted services, denied services, published-cell denial rates and exact bounds for the seven codes, 2010 to 2025, fee-for-service Part B carrier claims; counts are services, published-cell sums are floors, bounds treat each unpublished count as at most 10. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, retrieved September 2026.

Panel A. Services and denial rates by code and year.

Code	Year	Submitted services, at least	Denied services, at least	Denied, % (published-cell estimator)	Denied, % (bounds)
97802	2010	261,298	70,333	26.9	25.7 to 31.1
97802	2011	273,355	73,184	26.8	25.8 to 29.7
97802	2012	284,005	83,043	29.2	28.1 to 32.4
97802	2013	306,378	93,933	30.7	29.5 to 33.7
97802	2014	343,752	128,013	37.2	36.1 to 39.3
97802	2015	339,841	121,531	35.8	34.5 to 38.2
97802	2016	338,982	120,407	35.5	34.3 to 38.1
97802	2017	339,027	123,337	36.4	35.0 to 39.0
97802	2018	344,216	127,595	37.1	35.7 to 39.6
97802	2019	357,482	133,967	37.5	36.2 to 39.9
97802	2020	276,368	103,408	37.4	34.9 to 42.5
97802	2021	329,408	134,209	40.7	38.5 to 44.7
97802	2022	357,374	167,976	47.0	44.5 to 50.6
97802	2023	331,845	138,407	41.7	39.4 to 45.6
97802	2024	341,724	144,602	42.3	40.0 to 46.2
97802	2025	347,150	151,287	43.6	41.2 to 47.4
97803	2010	190,079	64,878	34.1	32.3 to 38.5
97803	2011	218,009	75,254	34.5	33.4 to 37.2
97803	2012	259,713	97,967	37.7	36.6 to 40.0
97803	2013	270,802	97,272	35.9	34.7 to 38.4
97803	2014	300,408	123,015	40.9	39.8 to 42.8
97803	2015	311,480	123,981	39.8	38.6 to 41.9
97803	2016	323,686	128,917	39.8	38.7 to 41.8
97803	2017	328,012	130,202	39.7	38.5 to 41.8
97803	2018	343,029	141,083	41.1	40.0 to 43.0
97803	2019	347,990	136,918	39.3	38.2 to 41.4
97803	2020	297,704	117,756	39.6	37.3 to 43.9
97803	2021	355,324	166,095	46.7	44.6 to 49.8
97803	2022	340,632	160,103	47.0	44.5 to 50.6
97803	2023	345,835	168,641	48.8	46.2 to 52.0
97803	2024	367,350	181,992	49.5	47.0 to 52.7
97803	2025	384,298	196,387	51.1	48.7 to 53.9
97804	2010	12,087	6,250	51.7	44.2 to 62.6
97804	2011	12,542	6,540	52.1	46.0 to 60.0
97804	2012	13,835	7,397	53.5	46.8 to 61.5
97804	2013	14,081	9,054	64.3	54.7 to 71.3
97804	2014	16,936	10,904	64.4	58.0 to 69.0
97804	2015	15,633	10,172	65.1	56.9 to 70.5
97804	2016	15,958	10,113	63.4	55.8 to 69.0
97804	2017	15,789	10,340	65.5	57.9 to 70.9
97804	2018	16,841	11,061	65.7	58.4 to 71.2
97804	2019	16,463	10,878	66.1	58.3 to 71.5
97804	2020	7,268	5,095	70.1	50.3 to 81.7
97804	2021	10,684	8,515	79.7	64.1 to 85.6
97804	2022	12,827	10,579	82.5	69.0 to 86.6
97804	2023	15,103	12,159	80.5	68.7 to 85.0
97804	2024	16,575	14,039	84.7	70.9 to 88.3

Code	Year	Submitted services, at least	Denied services, at least	Denied, % (published-cell estimator)	Denied, % (bounds)
97804	2025	17,874	15,474	86.6	73.9 to 89.5
G0270	2010	12,884	1,606	12.5	11.4 to 26.1
G0270	2011	16,859	1,816	10.8	10.1 to 19.8
G0270	2012	24,128	1,969	8.2	7.7 to 15.8
G0270	2013	33,572	3,195	9.5	9.0 to 16.3
G0270	2014	36,040	3,672	10.2	9.8 to 14.6
G0270	2015	55,683	7,558	13.6	13.2 to 17.0
G0270	2016	61,773	8,813	14.3	13.8 to 17.7
G0270	2017	61,747	5,884	9.5	9.3 to 12.8
G0270	2018	69,335	7,840	11.3	11.0 to 14.2
G0270	2019	88,619	8,812	9.9	9.7 to 12.6
G0270	2020	98,171	19,248	19.6	19.0 to 23.2
G0270	2021	93,225	16,583	17.8	17.3 to 21.6
G0270	2022	71,282	7,478	10.5	10.1 to 16.1
G0270	2023	65,803	6,820	10.4	10.0 to 15.6
G0270	2024	85,891	7,305	8.5	8.3 to 13.3
G0270	2025	97,842	9,733	9.9	9.7 to 14.2
G0271	2010	599	107	17.9	11.8 to 58.0
G0271	2011	556	234	42.1	26.7 to 68.9
G0271	2012	568	257	45.2	29.3 to 72.6
G0271	2013	1,062	366	34.5	24.0 to 60.2
G0271	2014	1,031	356	34.5	24.7 to 59.4
G0271	2015	1,555	455	29.3	24.1 to 46.9
G0271	2016	2,323	1,230	52.9	45.8 to 61.1
G0271	2017	1,706	709	41.6	34.0 to 58.0
G0271	2018	1,525	483	31.7	24.2 to 51.8
G0271	2019	1,208	461	38.2	28.5 to 58.8
G0271	2020	690	162	23.5	16.5 to 52.2
G0271	2021	559	76	13.6	8.3 to 52.9
G0271	2022	827	129	15.6	9.8 to 51.6
G0271	2023	871	309	35.5	24.1 to 60.0
G0271	2024	936	213	22.8	17.0 to 45.6
G0271	2025	699	133	19.0	12.6 to 53.2
G0108	2010	145,919	43,419	29.8	27.8 to 36.3
G0108	2011	158,942	50,955	32.1	30.6 to 36.3
G0108	2012	158,148	46,594	29.5	28.0 to 34.3
G0108	2013	167,320	50,531	30.2	28.7 to 34.8
G0108	2014	178,084	58,401	32.8	31.4 to 36.6
G0108	2015	189,266	55,548	29.3	28.1 to 33.2
G0108	2016	194,137	53,555	27.6	26.4 to 31.8
G0108	2017	206,350	58,941	28.6	27.3 to 32.8
G0108	2018	219,192	64,742	29.5	28.2 to 33.6
G0108	2019	236,552	71,433	30.2	29.0 to 33.9
G0108	2020	186,801	47,618	25.5	23.2 to 34.4
G0108	2021	209,165	54,799	26.2	24.4 to 32.9
G0108	2022	218,319	65,658	30.1	28.0 to 36.4
G0108	2023	222,084	85,604	38.5	36.1 to 43.5

Code	Year	Submitted services, at least	Denied services, at least	Denied, % (published-cell estimator)	Denied, % (bounds)
G0108	2024	197,501	83,895	42.5	39.6 to 47.5
G0108	2025	191,498	80,812	42.2	39.0 to 47.9
G0109	2010	204,528	68,128	33.3	32.9 to 35.3
G0109	2011	190,739	54,621	28.6	28.3 to 30.0
G0109	2012	180,802	52,128	28.8	28.5 to 30.4
G0109	2013	172,789	51,111	29.6	29.2 to 31.4
G0109	2014	158,403	53,231	33.6	33.2 to 35.2
G0109	2015	160,274	57,639	36.0	35.5 to 37.6
G0109	2016	150,396	42,238	28.1	27.7 to 30.0
G0109	2017	148,769	40,395	27.2	26.8 to 29.2
G0109	2018	143,133	39,780	27.8	27.4 to 29.8
G0109	2019	154,733	48,341	31.2	30.8 to 33.0
G0109	2020	52,039	12,397	23.8	22.7 to 30.5
G0109	2021	48,967	13,010	26.6	25.2 to 32.9
G0109	2022	55,608	19,200	34.5	33.0 to 39.6
G0109	2023	66,615	22,416	33.6	32.3 to 37.8
G0109	2024	62,762	20,639	32.9	31.5 to 37.3
G0109	2025	57,269	18,874	33.0	31.6 to 37.6
97802 + 97803 (individual nutrition therapy)	2010	451,377	135,211	30.0	28.5 to 34.2
97802 + 97803 (individual nutrition therapy)	2011	491,364	148,438	30.2	29.2 to 33.0
97802 + 97803 (individual nutrition therapy)	2012	543,718	181,010	33.3	32.1 to 36.0
97802 + 97803 (individual nutrition therapy)	2013	577,180	191,205	33.1	31.9 to 35.9
97802 + 97803 (individual nutrition therapy)	2014	644,160	251,028	39.0	37.8 to 41.0
97802 + 97803 (individual nutrition therapy)	2015	651,321	245,512	37.7	36.5 to 40.0
97802 + 97803 (individual nutrition therapy)	2016	662,668	249,324	37.6	36.4 to 39.9
97802 + 97803 (individual nutrition therapy)	2017	667,039	253,539	38.0	36.7 to 40.4
97802 + 97803 (individual nutrition therapy)	2018	687,245	268,678	39.1	37.9 to 41.3
97802 + 97803 (individual nutrition therapy)	2019	705,472	270,885	38.4	37.2 to 40.6
97802 + 97803 (individual nutrition therapy)	2020	574,072	221,164	38.5	36.1 to 43.2
97802 + 97803 (individual nutrition therapy)	2021	684,733	300,305	43.9	41.7 to 47.3
97802 + 97803 (individual nutrition therapy)	2022	698,007	328,079	47.0	44.5 to 50.6
97802 + 97803 (individual nutrition therapy)	2023	677,680	307,048	45.3	42.9 to 48.9
97802 + 97803 (individual nutrition therapy)	2024	709,074	326,595	46.1	43.6 to 49.5
97802 + 97803 (individual nutrition therapy)	2025	731,448	347,674	47.5	45.1 to 50.8
G0270 + G0271	2010	13,483	1,713	12.7	11.4 to 28.0
G0270 + G0271	2011	17,415	2,050	11.8	10.8 to 22.1
G0270 + G0271	2012	24,696	2,226	9.0	8.4 to 17.7

Code	Year	Submitted services, at least	Denied services, at least	Denied, % (published-cell estimator)	Denied, % (bounds)
G0270 + G0271	2013	34,634	3,561	10.3	9.6 to 18.1
G0270 + G0271	2014	37,071	4,028	10.9	10.4 to 16.3
G0270 + G0271	2015	57,238	8,013	14.0	13.5 to 18.0
G0270 + G0271	2016	64,096	10,043	15.7	15.1 to 19.4
G0270 + G0271	2017	63,453	6,593	10.4	10.1 to 14.3
G0270 + G0271	2018	70,860	8,323	11.7	11.4 to 15.3
G0270 + G0271	2019	89,827	9,273	10.3	10.1 to 13.4
G0270 + G0271	2020	98,861	19,410	19.6	19.0 to 23.5
G0270 + G0271	2021	93,784	16,659	17.8	17.2 to 21.9
G0270 + G0271	2022	72,109	7,607	10.5	10.1 to 16.7
G0270 + G0271	2023	66,674	7,129	10.7	10.3 to 16.5
G0270 + G0271	2024	86,827	7,518	8.7	8.4 to 13.8
G0270 + G0271	2025	98,541	9,866	10.0	9.7 to 14.6
Five nutrition therapy codes	2010	476,948	143,175	30.0	28.4 to 34.8
Five nutrition therapy codes	2011	521,322	157,028	30.1	29.0 to 33.4
Five nutrition therapy codes	2012	582,249	190,633	32.7	31.5 to 35.9
Five nutrition therapy codes	2013	625,895	203,820	32.6	31.2 to 35.8
Five nutrition therapy codes	2014	698,167	265,960	38.1	36.9 to 40.4
Five nutrition therapy codes	2015	724,192	263,697	36.4	35.1 to 38.9
Five nutrition therapy codes	2016	742,722	269,481	36.3	35.0 to 38.8
Five nutrition therapy codes	2017	746,281	270,472	36.2	35.0 to 38.9
Five nutrition therapy codes	2018	774,946	288,062	37.2	35.9 to 39.6
Five nutrition therapy codes	2019	811,762	291,036	35.9	34.7 to 38.3
Five nutrition therapy codes	2020	680,201	245,669	36.1	33.9 to 41.0
Five nutrition therapy codes	2021	789,201	325,479	41.2	39.2 to 45.0
Five nutrition therapy codes	2022	782,943	346,265	44.2	41.8 to 48.2
Five nutrition therapy codes	2023	759,457	326,336	43.0	40.7 to 46.9
Five nutrition therapy codes	2024	812,477	348,152	42.9	40.6 to 46.7
Five nutrition therapy codes	2025	847,863	373,014	44.0	41.8 to 47.6
G0108 + G0109 (self-management training)	2010	350,447	111,547	31.8	30.7 to 35.7
G0108 + G0109 (self-management training)	2011	349,682	105,577	30.2	29.4 to 33.0
G0108 + G0109 (self-management training)	2012	338,951	98,722	29.1	28.3 to 32.3
G0108 + G0109 (self-management training)	2013	340,109	101,643	29.9	29.0 to 33.1
G0108 + G0109 (self-management training)	2014	336,488	111,632	33.2	32.2 to 35.9
G0108 + G0109 (self-management training)	2015	349,541	113,188	32.4	31.5 to 35.2
G0108 + G0109 (self-management training)	2016	344,534	95,793	27.8	26.9 to 31.0
G0108 + G0109 (self-management training)	2017	355,119	99,336	28.0	27.1 to 31.3
G0108 + G0109 (self-management training)	2018	362,326	104,522	28.8	27.9 to 32.1
G0108 + G0109 (self-management training)	2019	391,286	119,775	30.6	29.7 to 33.6
G0108 + G0109 (self-management training)	2020	238,840	60,015	25.1	23.1 to 33.6

Code	Year	Submitted services, at least	Denied services, at least	Denied, % (published-cell estimator)	Denied, % (bounds)
G0108 + G0109 (self-management training)	2021	258,132	67,809	26.3	24.6 to 32.9
G0108 + G0109 (self-management training)	2022	273,927	84,858	31.0	29.0 to 37.1
G0108 + G0109 (self-management training)	2023	288,699	108,020	37.4	35.3 to 42.2
G0108 + G0109 (self-management training)	2024	260,263	104,534	40.2	37.7 to 45.1
G0108 + G0109 (self-management training)	2025	248,767	99,686	40.1	37.3 to 45.6

Panel B. Differences in denial rates, nutrition therapy code minus self-management training code, percentage points: published-cell estimator (bounds).

Year	97802 minus G0108	97803 minus G0108	97802 + 97803 minus G0108	97804 minus G0109
2010	-2.8 (-10.6 to +3.3)	+4.4 (-4.0 to +10.7)	+0.2 (-7.8 to +6.4)	+18.4 (+8.9 to +29.8)
2011	-5.3 (-10.5 to -0.8)	+2.5 (-3.0 to +6.6)	-1.8 (-7.2 to +2.5)	+23.5 (+16.0 to +31.7)
2012	-0.2 (-6.2 to +4.4)	+8.3 (+2.3 to +12.0)	+3.8 (-2.2 to +8.1)	+24.6 (+16.3 to +33.0)
2013	+0.5 (-5.3 to +5.0)	+5.7 (-0.1 to +9.7)	+2.9 (-2.9 to +7.2)	+34.7 (+23.3 to +42.1)
2014	+4.4 (-0.5 to +8.0)	+8.2 (+3.2 to +11.5)	+6.2 (+1.3 to +9.6)	+30.8 (+22.9 to +35.7)
2015	+6.4 (+1.4 to +10.1)	+10.5 (+5.4 to +13.7)	+8.3 (+3.3 to +11.8)	+29.1 (+19.3 to +34.9)
2016	+7.9 (+2.5 to +11.7)	+12.2 (+6.9 to +15.5)	+10.0 (+4.6 to +13.5)	+35.3 (+25.8 to +41.2)
2017	+7.8 (+2.2 to +11.8)	+11.1 (+5.7 to +14.6)	+9.4 (+3.9 to +13.1)	+38.3 (+28.7 to +44.2)
2018	+7.5 (+2.1 to +11.4)	+11.6 (+6.4 to +14.8)	+9.6 (+4.2 to +13.1)	+37.9 (+28.6 to +43.9)
2019	+7.3 (+2.3 to +10.9)	+9.1 (+4.3 to +12.4)	+8.2 (+3.3 to +11.6)	+34.8 (+25.3 to +40.6)
2020	+11.9 (+0.5 to +19.3)	+14.1 (+2.8 to +20.7)	+13.0 (+1.7 to +20.1)	+46.3 (+19.7 to +59.0)
2021	+14.5 (+5.6 to +20.3)	+20.5 (+11.7 to +25.4)	+17.7 (+8.8 to +22.9)	+53.1 (+31.3 to +60.5)
2022	+16.9 (+8.0 to +22.5)	+16.9 (+8.1 to +22.5)	+16.9 (+8.1 to +22.5)	+47.9 (+29.4 to +53.5)
2023	+3.2 (-4.1 to +9.4)	+10.2 (+2.8 to +15.9)	+6.8 (-0.6 to +12.7)	+46.9 (+30.9 to +52.7)
2024	-0.2 (-7.5 to +6.6)	+7.1 (-0.5 to +13.1)	+3.6 (-3.9 to +10.0)	+51.8 (+33.5 to +56.7)
2025	+1.4 (-6.7 to +8.4)	+8.9 (+0.8 to +15.0)	+5.3 (-2.8 to +11.9)	+53.6 (+36.3 to +57.9)

Panel C. The group-code difference (97804 minus G0109) minus each individual-code difference, percentage points: published-cell estimator (bounds).

Year	Minus (97802 minus G0108)	Minus (97803 minus G0108)	Minus (97802 + 97803 minus G0108)
2010	+21.2 (+5.6 to +40.4)	+14.0 (-1.8 to +33.7)	+18.2 (+2.5 to +37.6)
2011	+28.8 (+16.8 to +42.2)	+21.0 (+9.4 to +34.7)	+25.4 (+13.5 to +38.8)
2012	+24.9 (+11.9 to +39.2)	+16.4 (+4.3 to +30.7)	+20.8 (+8.3 to +35.2)
2013	+34.3 (+18.3 to +47.4)	+29.0 (+13.6 to +42.2)	+31.8 (+16.1 to +45.0)
2014	+26.3 (+14.9 to +36.2)	+22.6 (+11.4 to +32.5)	+24.6 (+13.3 to +34.5)
2015	+22.7 (+9.2 to +33.6)	+18.7 (+5.6 to +29.5)	+20.8 (+7.5 to +31.6)
2016	+27.4 (+14.1 to +38.8)	+23.0 (+10.4 to +34.4)	+25.3 (+12.3 to +36.6)
2017	+30.5 (+17.0 to +41.9)	+27.2 (+14.1 to +38.5)	+28.9 (+15.6 to +40.3)
2018	+30.4 (+17.2 to +41.8)	+26.3 (+13.9 to +37.5)	+28.3 (+15.6 to +39.6)
2019	+27.6 (+14.4 to +38.4)	+25.7 (+12.9 to +36.4)	+26.6 (+13.6 to +37.4)
2020	+34.4 (+0.4 to +58.5)	+32.2 (-1.0 to +56.2)	+33.2 (-0.3 to +57.3)
2021	+38.6 (+11.0 to +54.8)	+32.6 (+5.9 to +48.8)	+35.5 (+8.3 to +51.7)
2022	+31.0 (+6.9 to +45.5)	+31.0 (+6.9 to +45.5)	+31.0 (+6.9 to +45.5)
2023	+43.7 (+21.4 to +56.7)	+36.6 (+15.0 to +49.9)	+40.1 (+18.1 to +53.3)
2024	+52.0 (+26.9 to +64.2)	+44.8 (+20.4 to +57.2)	+48.2 (+23.5 to +60.6)
2025	+52.2 (+27.8 to +64.7)	+44.7 (+21.3 to +57.1)	+48.3 (+24.4 to +60.7)

Notes: Counts are billed services (units), not sessions, claims or beneficiaries, on fee-for-service Part B carrier claims only; the file records no reason for denial. Submitted and denied services are sums of published cells and are floors, rounded down to a whole service. The published-cell estimator counts every unpublished denial count as zero and drops rows whose submitted count is unpublished. Bounds are the lowest and highest values consistent with the unpublished cells, treating each unpublished count as at most 10, the file's stated suppression threshold; Appendix A repeats every bound with a cap of 11. Pooled rows sum the codes named. In Panels B and C, the bounds on a difference are the lowest and highest differences consistent with the unpublished cells of all the codes involved, taken together; because no row belongs to more than one code, they equal the lower bound of each code added with a positive sign plus the upper bound of each code subtracted, and the reverse. Rates and differences are rounded to the nearest tenth. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 2026.

Codes G0270 and G0271 are billed for reassessment and further intervention after a second referral in the same year for a change in diagnosis, medical condition or treatment regimen, including additional hours needed for renal disease, individually in 15-minute units and in groups in 30-minute units. CMS's claims manual directs that they "should be used when additional hours of MNT services are performed beyond the number of hours typically covered," but it also directs that 97803 be used, and allows 97804 to be used, when a patient's condition changes, so these two codes are not a complete count of the additional hours National Coverage Determination 180.1 allows.[63] Published submitted services under them rose from at least 13,483 in 2010 to at least 98,541 in 2025, and in 2025 they were denied 10.0 percent of the time on the published-cell estimator (9.7 to 14.6 percent across the bounds). These are service units, not counts of approved requests for more hours.

A registered prediction. The group-code gap is also stated as a prediction for the next year of claims. A plan written and hashed on September 29, 2026, before any claims for calendar year 2026 could be final, predicts that the lowest 97804 denial rate consistent with the 2026 file will exceed the highest G0109 rate, and fixes in advance what this report will say if it does not (Data availability). The 2010 to 2025 results above are descriptive.

A competing explanation, and its limits

The two benefits are coupled by rule. Under the regulation, a beneficiary "may only receive the maximum number of hours covered under the DSMT benefit for both DSMT and MNT during the initial DSMT training period unless additional hours are determined to be medically necessary under the national coverage determination process," which places both services under the self-management training benefit's hours cap during the initial training period; and the statute covers nutrition therapy only for a beneficiary who "has not received diabetes outpatient self-management training services within a time period determined by the Secretary."[64]

That coupling has been in force on the same terms since the benefit began. The coverage determination has provided since its original version, effective October 1, 2002, that where a physician determines that both services are medically necessary in the same episode of care, Medicare covers both in initial and subsequent years "without decreasing either benefit as long as DSMT and MNT are not provided on the same date of service." The 2022 version keeps that sentence, dropping only its opening words, "Effective October 1, 2002," and the word "treating."[65] The coupling paragraph of the regulation still reads as promulgated in 2001. The text of the coordination rules is therefore constant across the whole series. It is a candidate explanation for the level of the gap. A constant rule can still produce a changing denial rate if the claims it reaches change, for instance if more beneficiaries receive nutrition therapy during or after training, or more group units are billed per beneficiary against the shared hours; the procedure summary, which records neither beneficiaries nor reasons for denial, cannot distinguish those possibilities, and what accounts for the rise in the gap that the estimator shows is not established by these data or claimed here. Because the shared hours cap reaches every nutrition therapy code, a coupling explanation would also have to fit the far smaller difference between individual nutrition therapy and individual self-management training, and the denial of about one in ten services under the additional-hours codes G0270 and G0271 in 2025 (10.0 percent on the published-cell estimator, 9.7 to 14.6 percent across the bounds). Services billed with a notice of expected denial are consistent with denials under the shared hours but do not identify them.

What these figures are not

These are counts of services, not of sessions, claims, or beneficiaries: for a time-based code a long denied session counts several times, and the file does not show whether a denied service was later billed again and paid, so a denial rate on services may differ in either direction from the share of sessions or beneficiaries denied. All figures are fee-for-service carrier claims only. Services billed on institutional claims are excluded, and 55.7 percent of Part B enrollees were in Medicare Advantage or other health plans in 2025, whom the procedure summary does not include, so these figures are a floor on national use rather than a total. For the comparison benefit the exclusion also limits the trend: the 72.0 percent fall in carrier-billed G0109 services may reflect a shift between claim types as well as a fall in use, and these data cannot tell the two apart.

Reopening a national coverage determination

Two of the benefit's limits sit in national coverage determinations: the hours in 180.1, and the restriction on who may bill preventive dietary counseling in 210.11 and 210.12. The standard and procedure for reopening a determination therefore govern those two limits.

Who may ask, and on what showing

Any individual or entity may ask CMS to reconsider any provision of an existing determination by filing a complete formal request. CMS will consider accepting a request only if it presents "[a]dditional scientific evidence that was not considered during the most recent review along with a sound premise by the requester that new evidence may change the NCD decision," or "[p]lausible arguments that our conclusion materially misinterpreted the existing evidence at the time the NCD was decided."[66] CMS decides within about 60 days whether to accept; an accepted request is posted with a tracking sheet, and a declined request is answered by letter.[67]

The 2013 notice also sets out what makes a request for reconsideration complete, and as of September 15, 2026, CMS still points to it: its final physician fee schedule rule for 2021 said it would continue to reconsider or revise particular determinations under the procedures that notice explains, and its request page and an August 2026 notice cite the notice for the national coverage determination process.[68] A request is complete when the letter is final, not marked as a draft, and identified as a "Formal Request for NCD Reconsideration"; when it identifies the scientific evidence the requester believes supports reconsideration, although CMS's review is not limited to what the requester submits; when it includes and supports any additional Medicare Part A or Part B benefit category in which the requester believes the item or service falls; and when it arrives with its supporting documentation, electronically unless there is good cause for a paper submission.[69] Acceptance of a complete request indicates that CMS has enough information to conduct the review.[70] A request may address any provision of a determination; its documentation is what CMS screens against the two acceptance criteria quoted above, and before deciding CMS also reviews other related clinical materials.[71] CMS encourages, but does not require, a conference call or meeting with its Coverage and Analysis Group before a formal request is submitted.[72]

An internal reconsideration begins differently: CMS opens it itself, for any policy or an entire determination, and seeks public comment on relevant questions, while the acceptance criteria and the acceptance decision, usually made within about 60 days, are described for external requests.[73] From the opening on, the notice applies the same steps to new determinations and to reconsiderations: a tracking sheet announcing the review, a public comment period on the opening that CMS generally allows for 30 days, a proposed decision, a 30-day comment period on it, and a final decision.[74]

The statutory clock

The statute runs its clock from the date of a request for a national coverage determination: a proposed decision within six months, or nine if an outside technology assessment or advisory committee deliberation is required and no clinical trial is requested, a 30-day public comment period, and a final decision within 60 days after the comment period closes, with summaries of the comments and responses to them. CMS applies the same steps to reconsiderations but starts the clock when it opens review of a complete, formal request, after an acceptance screen of about 60 days that the statute does not provide.[75]

The benefit category constraint

CMS's procedures state that "Medicare does not develop NCDs to establish coverage of items or services that fall outside the scope of the Part A or Part B benefits," and a request must identify the benefit category in which the requester believes the item or service falls.[76] For the hours in 180.1, the category is the statutory nutrition therapy benefit itself, and the regulation already names the national coverage determination process as the route to additional hours. For the counseling determinations, the category is additional preventive services. The statute pays for those services under a fee schedule the Secretary establishes and names no class of practitioner who must furnish them; the restriction to primary care practitioners is the determinations' choice, drawn from statutory definitions. Whether a dietitian could then bill that counseling independently would also depend on Medicare's qualification and payment rules for dietitians, which are written for medical nutrition therapy and which a reconsideration does not itself change.[77]

No notice-and-comment requirement, and a narrow challenge

National coverage determinations are expressly excepted from the Medicare statute's requirement that a rule establishing or changing a "substantive legal standard" governing the scope of benefits be issued by regulation after notice and comment, a requirement the Supreme Court has held reaches further than the Administrative Procedure Act's category of substantive rules.[78] The determination process carries its own comment period instead. And while anyone may request reconsideration, only an aggrieved beneficiary, one who is entitled to benefits and in need of coverage for a service denied under the determination, may challenge a determination before the Departmental Appeals Board, whose decision is subject to judicial review.[79] Both features have a history: in 1987 the Administrative Conference of the United States, drawing on a study it had commissioned, recommended that the agency provide an opportunity for public comment on all national coverage policies and that Congress reconsider the restrictions it had placed on administrative and judicial review of national coverage determinations.[80] The statute now provides a comment period on proposed decisions and, under a provision added in 2000, a challenge before the Departmental Appeals Board that only an aggrieved beneficiary may bring.[81]

What the structure implies

The routes allocate the burden differently. An external request for reconsideration is open to anyone but gated on evidence the agency has not considered or on a showing that it misread the evidence it had; a challenge is open only to beneficiaries. CMS may also open a reconsideration itself, generally when it becomes aware of new evidence that could support a material change in coverage, and that route places no burden on a requester.[82] A third route is periodic and internal. In 2013 CMS announced "an administrative procedure to periodically review the inventory of NCDs that are older than 10 years since their most recent review and evaluate the continued need for those policies to remain active on a national scale."[83] That review has no requester and no evidentiary gate, and it is discretionary. In September 2025 the Government Accountability Office reported that CMS officials were "working to identify a more efficient way to reconsider or remove NCDs older than 10 years, of which there are currently 350"; that CMS "must reconsider each NCD individually, which officials said is not efficient"; and, among the steps of the coverage process, that CMS "periodically conducts internal reviews of existing NCDs that are 10 years or older and may choose to reconsider or remove such NCDs."[84] CMS has since changed how it removes determinations: in its physician fee schedule rulemaking for 2021, completed in December 2020, it removed determinations by notice and comment, citing the Supreme Court's decision in *Azar v. Allina Health Services*, and it later described rulemaking as "replacing the prior subregulatory administrative process used on two occasions in 2013 and 2015."[85] By either route, removal would not hand these limits to Medicare's contractors: removing a determination leaves initial coverage determinations to the contractors, but the regulation sends additional nutrition therapy hours to the national coverage determination process, and the statute provides that the Secretary shall use that process in determining coverage of a new additional preventive service.[86] For determinations whose evidence was last analyzed in 2002 and 2011, the evidentiary gate is the operative one for an outside requester: a request would need evidence the agency did not consider at those analyses, or a

showing that it materially misread the evidence then before it. Chambers and colleagues found that, among national coverage determinations for medical interventions and after adjustment for strength of evidence and other factors, determinations issued from mid-March 2008 through August 2012 were less likely to be favorable than those issued from February 1999 through January 2002.[87] Whether any request would succeed is a question this report does not address.

What reopening each limit would require

Several of the benefit's limits are fixed in statute: the covered conditions, including the exclusion of beneficiaries receiving maintenance dialysis; the requirement of a physician's referral; the qualifications of those who furnish the service; the payment percentages; the bar on nutrition therapy within a period after diabetes self-management training; and the annual update to the conversion factor that carries the benefit's price. Where any of them has changed, Congress changed it; for the covered conditions, two other authorities are taken up below. The hours, the regulation's sharing of hours with that training, its definitions of renal disease and diabetes, and the restriction on who may bill preventive dietary counseling sit in instruments the agency can reopen, each by its own procedure (**Table 1**). The inventory is confined to national instruments; the local coverage determinations, billing articles, and claims-processing edits of Medicare's claims contractors, which also bear on how individual claims are adjudicated, are outside it (see Documentary and legal sources). **Figure 3** plots, for each instrument, the dated changes to its text and the span from its last recorded movement to September 11, 2026.

Social Security Act sections and their United States Code equivalents, as cited in this report. Each row was checked on September 15, 2026, against the section heading and source credit in the United States Code as published by the Office of the Law Revision Counsel (uscode.house.gov, current through Pub. L. 119-103). The notes also cite section 1842(b)(18)(C)(vi), 42 U.S.C. § 1395u(b)(18)(C)(vi), under which a registered dietitian or nutrition professional is paid only on an assignment-related basis; section 1866C, 42 U.S.C. § 1395cc–3, the health care quality demonstration program named in section 1115A(c); and further subdivisions of sections in the table, sections 1833(a)(1)(W), 1861(s)(2)(BB), 1861(ww)(2)(I) and 1871(b)(1) (42 U.S.C. §§ 1395l(a)(1)(W), 1395x(s)(2)(BB), (ww)(2)(I), 1395hh(b)(1)), on payment for additional preventive services, their coverage, the list of preventive services that includes nutrition therapy, and notice of proposed regulations with at least 60 days for comment.

Social Security Act section	United States Code	Subject in this report
1115A	42 U.S.C. § 1315a	Innovation Center models and their expansion
1833(a)(1)(T)	42 U.S.C. § 1395l(a)(1)(T)	Payment percentages for nutrition therapy
1833(u)(6); 1833(x)(2)(A)(i)	42 U.S.C. § 1395l(u)(6), (x)(2)(A)(i)	Primary care practitioner definitions used in 210.11 and 210.12
1834(n)	42 U.S.C. § 1395m(n)	Modification of preventive service coverage
1848	42 U.S.C. § 1395w-4	Physician fee schedule: relative values and conversion factor
1861(s)(2)(V)	42 U.S.C. § 1395x(s)(2)(V)	The nutrition therapy benefit and its covered conditions
1861(vv)	42 U.S.C. § 1395x(vv)	Definitions of the services and of the practitioners
1861(ddd)	42 U.S.C. § 1395x(ddd)	Additional preventive services
1862(l)	42 U.S.C. § 1395y(l)	National coverage determination procedure and clock
1869(f)	42 U.S.C. § 1395ff(f)	Challenges to national coverage determinations
1871(a)(2)	42 U.S.C. § 1395hh(a)(2)	Notice-and-comment requirement and its exception
1881	42 U.S.C. § 1395rr	End-stage renal disease program (dialysis exclusion)

Table 1. Where the limits of Medicare's nutrition therapy benefit are held, what reopening each would require, and two routes that could change a limit without amending the instrument that holds it, as of September 2026. Sources: the statutes, regulations, coverage determinations and rules cited in the notes. The table was produced by code written with the assistance of an AI tool (see How this report was checked).

Limit	What it provides	Instrument that holds it	What reopening it requires	Status as of September 2026
Covered conditions	Coverage for a beneficiary with diabetes or a renal disease who is not receiving maintenance dialysis paid under section 1881 of the Social Security Act	Statute: 42 U.S.C. § 1395x(s)(2)(V); for coverage based on renal disease the dialysis exclusion is carried into 42 C.F.R. § 410.132(b)(1)	An act of Congress; under this subparagraph the Secretary may add criteria, not conditions; see the routes below	Unamended since enacted in 2000

Limit	What it provides	Instrument that holds it	What reopening it requires	Status as of September 2026
Referral and practitioner qualifications	Services furnished on a physician's referral by a registered dietitian or nutrition professional with a baccalaureate or higher degree and an accredited nutrition or dietetics program, at least 900 hours of supervised dietetics practice, and state licensure or certification (or criteria the Secretary sets where a state does not license or certify)	Statute: 42 U.S.C. § 1395x(vv)(1)–(3); regulation: 42 C.F.R. §§ 410.134, 410.72(a), (d). The national credential is named in the regulation, not the statute. For a State that does not license or certify dietitians, 42 U.S.C. § 1395x(vv)(2)(C)(ii) leaves qualification to "such other criteria as the Secretary establishes"; 42 C.F.R. § 410.134(c) accepts recognition as a "registered dietitian" by the Commission on Dietetic Registration "or its successor organization," and § 410.134(d)(ii) deems a registered dietitian "in good standing," so recognized, to meet the degree and supervised-practice requirements. Section 410.72(a), added effective January 1, 2022 (86 Fed. Reg. 64,996, 65,665), adopts those qualifications, and § 410.72(d), as amended effective January 1, 2024 (88 Fed. Reg. 78,818, 79,528), pays for medical nutrition therapy only when the dietitian directly performs it. These regulatory terms can be changed by notice-and-comment rulemaking; § 410.134 is unamended since 2001 apart from a spelling correction published in 2002 (67 Fed. Reg. 20,681, 20,684) (eCFR, current as of September 11, 2026)	An act of Congress	Unamended since enacted in 2000
Definition of renal disease; which physician may refer	Renal disease: chronic renal insufficiency (glomerular filtration rate 15 to 59 ml/min/1.73m^2), end-stage renal disease when dialysis is not received, or the 36 months after a kidney transplant; referral by a physician, not only the treating physician	Regulation: 42 C.F.R. §§ 410.130, 410.132(a), (c)	Notice-and-comment rulemaking, including the annual payment rule	Revised effective January 1, 2022 (86 Fed. Reg. 65,667); previously a range of 13 to 50, and referral by the treating physician
Definition of diabetes	Diabetes mellitus, a condition of abnormal glucose metabolism. Until January 1, 2024, the definition added: diagnosed using a fasting blood sugar greater than or equal to 126 mg/dL on two different occasions, a 2 hour post-glucose challenge greater than or equal to 200 mg/dL on 2 different occasions, or a random glucose test over 200 mg/dL for a person with symptoms of uncontrolled diabetes	Regulation: 42 C.F.R. § 410.130; National Coverage Determination 180.1 refers to the regulation's definition	Notice-and-comment rulemaking, including the annual payment rule	Revised effective January 1, 2024 (88 Fed. Reg. 78,818, 79,529): the glucose-test criteria were removed from this definition and from the identical definition of diabetes in 42 C.F.R. § 410.140, in the subpart on diabetes self-management training; National Coverage Determination 180.1, effective January 1, 2022, was not changed by that rule (eCFR versions of June 1, 2023 and June 1, 2024)
Hours	Basic coverage of 3 hours in the first year and 2 hours in each year after; additional hours when a physician determines that a change in diagnosis, medical condition, or treatment regimen requires them during an episode of care	National Coverage Determination 180.1; the limitation and its exception are set out in 42 C.F.R. § 410.132(b)	Reconsideration, which CMS will consider accepting only on evidence not considered in the most recent review or a plausible argument that the evidence was materially misinterpreted; proposed decision, 30-day comment period, final decision; CMS may also open a reconsideration itself, or review the determination under its discretionary procedure for determinations more than 10 years past their last review (78 Fed. Reg. at 48,167–68)	Unchanged since October 1, 2002; new version effective January 1, 2022, by change request, whose text states it was last reviewed in December 2021; not formally reconsidered since 2002 (one national coverage analysis, 2002)

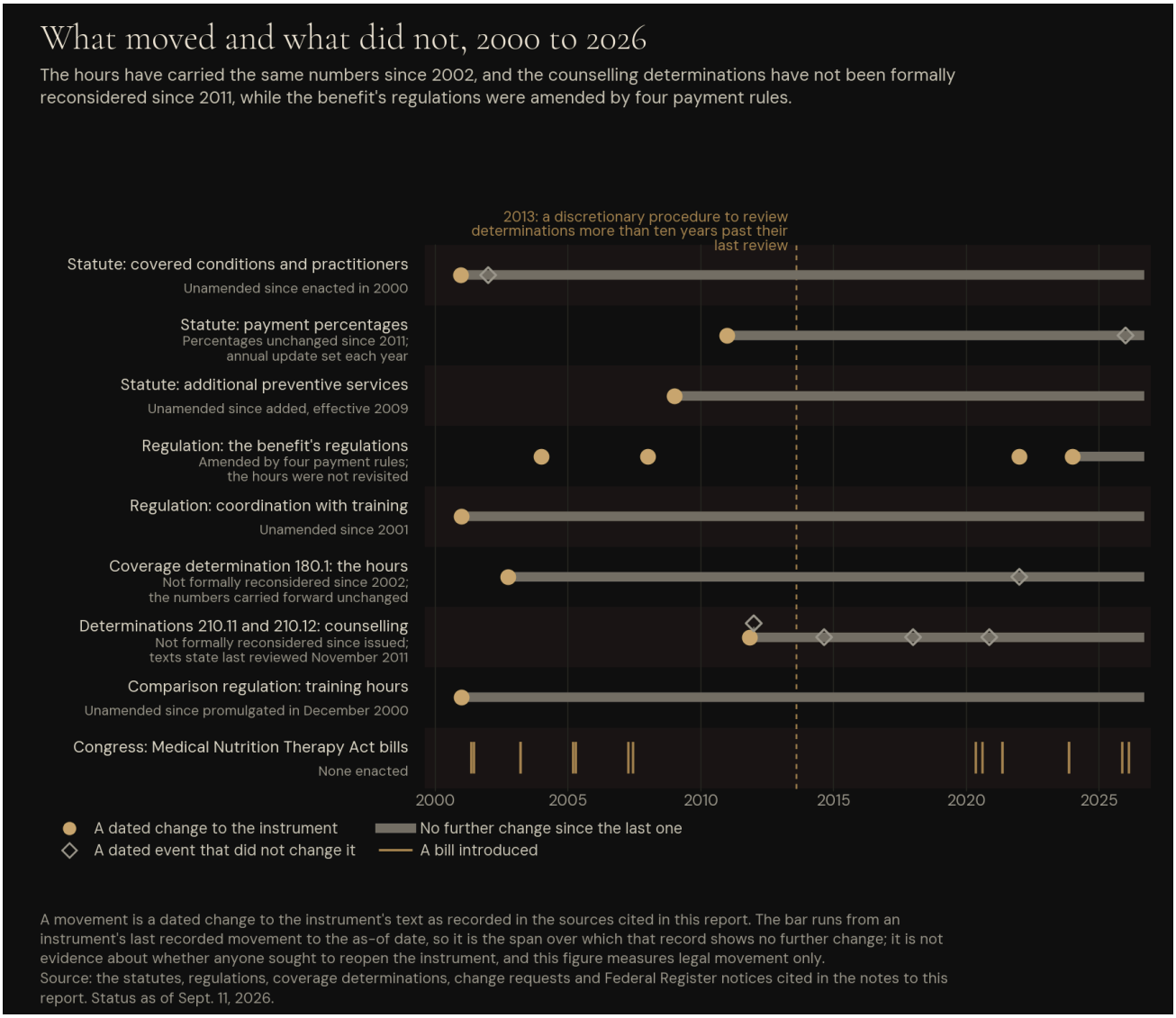
Limit	What it provides	Instrument that holds it	What reopening it requires	Status as of September 2026
Counting period for the first year's hours	The initial 3 hours are counted within the beneficiary's initial calendar year; no initial hours carry over to the next calendar year	Program manual: Pub. 100-04, ch. 4, §§ 300.2, 300.6. Not stated in 42 C.F.R. § 410.130, which sets a 12-month period when nutrition therapy is coordinated with initial diabetes self-management training and a calendar year for each year after, or in National Coverage Determination 180.1, which refers to "the first year a beneficiary receives MNT"	Revision of the manual section, which CMS issues by transmittal	Sections as revised by Transmittal 11426, Change Request 12613 (issued May 20, 2022, effective January 1, 2022); section 300 of the same chapter still describes the episode of care as a 12-month period beginning with the initial assessment
Nutrition therapy in the beneficiary's home, Indian Health Service settings	A dietitian in individual or group practice may furnish nutrition therapy in the beneficiary's home where the physician's written orders document the need; a dietitian employed by an Indian Health Service hospital may not be paid for nutrition therapy furnished in the home	Program manual: Pub. 100-04, ch. 19, §§ 80.7, 100.13.2. No home-setting term in 42 U.S.C. § 1395x(vv), 42 C.F.R. §§ 405.2463, 410.72, 410.130–410.134, 414.64, or National Coverage Determination 180.1	Revision of the manual section, which CMS issues by transmittal	Sections as issued by Transmittal 1040 (issued August 25, 2006, effective September 11, 2006)
Coordination with diabetes self-management training	Shared hours during initial training; coverage only for a beneficiary who has not received that training within a period the Secretary sets	Regulation: 42 C.F.R. § 410.132(b)(2); statute: 42 U.S.C. § 1395x(s)(2)(V)(i)	Notice-and-comment rulemaking for the regulation; an act of Congress for the statute	Paragraph (b)(2) unamended since 2001
Who may bill preventive dietary counseling	Coverage when furnished by a qualified primary care physician or other primary care practitioner in a primary care setting; a dietitian may furnish it incident to that practitioner's service, with the practitioner billing	National Coverage Determinations 210.11 and 210.12, under 42 U.S.C. § 1395x(ddd)	Reconsideration, as above; independent billing by dietitians would also depend on qualification and payment rules written for medical nutrition therapy (42 C.F.R. §§ 410.134, 414.64)	Texts state last reviewed November 2011; not formally reconsidered since issued (Medicare Coverage Database, searched September 11, 2026)
Price	Payment at 80 percent of the lesser of the actual charge or 85 percent of the physician fee schedule amount for the same service; 100 percent since 2011 where the service is recommended with a grade of A or B by the US Preventive Services Task Force	Payment: 42 U.S.C. § 1395l(a)(1)(T); relative values and conversion factor: 42 U.S.C. § 1395w-4(c), (d)	An act of Congress to change the payment percentages or the annual update; the Secretary sets relative values in the annual payment rule and applies a budget-neutrality adjustment each year	Update of 0.0 percent for 2020 through 2025; 0.25 percent, or 0.75 percent for qualifying alternative payment model participants, from 2026
Comparison: hours of diabetes self-management training	10 hours of initial training; 2 hours of follow-up a year	Regulation: 42 C.F.R. § 410.141(c)	Notice-and-comment rulemaking	Unamended since promulgated in December 2000

Routes that could change a limit without amending the instrument that holds it

Route	Authority	What it requires	Status as of September 2026
Expansion of a tested model	42 U.S.C. § 1315a(c); waivers for testing under § 1315a(d)(1)	Rulemaking, taking into account the model's evaluation; findings that expansion is expected to reduce spending without reducing quality of care, or to improve quality without increasing spending, and would not deny or limit coverage; certification by the Chief Actuary of the Centers for Medicare & Medicaid Services that it would not increase net program spending	No model found whose tested intervention is Medicare nutrition therapy or nutrition therapy delivered by dietitians (search of September 11, 2026); used in 2016 to expand the Medicare Diabetes Prevention Program
Modification of preventive service coverage	Social Security Act § 1834(n), 42 U.S.C. § 1395m(n)(1)(A)	A modification consistent with US Preventive Services Task Force recommendations; the enacting section does not affect the coverage of diagnostic or treatment services	Not used to add a condition to this benefit

Figure 3. Movements and stand-stills by instrument, 2000 to 2026. Each lane is one instrument that holds a limit of the nutrition therapy benefit, or, in the last lane, the bills introduced to change one. A filled circle marks a dated change to the instrument's text. An open diamond marks a dated event that did not change it: the reissue of National Coverage Determination 180.1 effective January 1, 2022, which carried the three-hour and two-hour limits forward unchanged; the replacements of the Task Force recommendations underlying Determinations 210.11 and 210.12; and the step in the statutory update schedule that applies from 2026 under percentages Congress fixed before then. The bar runs from an instrument's last recorded movement to September 11, 2026, so it is the span over which the record cited in this report shows no further change; the bills lane carries no bar, because no bill was enacted to date one from. The dashed rule marks 2013, when the discretionary procedure to review determinations more than ten years past their last review was established. A stand-still is the absence of a dated change on that record; it is not evidence about whether anyone

sought to reopen an instrument, and this figure measures legal movement only. Sources: the statutes, regulations, coverage determinations, change requests and Federal Register notices cited in the notes; bill dates from the US Government Publishing Office, retrieved September 11, 2026. Status as of September 11, 2026. The figure was produced by code written with the assistance of an AI tool (see How this report was checked).



The statute is unamended since 2000, the hours carry the same numbers as in 2002, and the counselling determinations have not been formally reconsidered since 2011, while the benefit's regulations were amended by four payment rules.

A long description of Figure 3, listing every plotted value, is in the accessibility descriptions in this report's data record.

Covered conditions are set in statute

Section 1861(s)(2)(V) limits coverage to diabetes and renal disease, and the Secretary's authority under it is to add criteria, not conditions. None of the 16 bills introduced since section 105 became law to change that has been enacted.

Two authorities outside that subparagraph bear on the question. Section 1834(n) of the Social Security Act permits the Secretary, notwithstanding any other provision of the Medicare title, to modify the coverage of listed preventive services, medical nutrition therapy among them, "to the extent that such modification is consistent with the recommendations of the United States Preventive Services Task Force"; the enacting section provides that the amendment shall not "be construed to affect the coverage of diagnostic or treatment services," and the benefit is defined as services "for the purpose of disease management."[88] Under section 1115A the Secretary may also waive Medicare requirements as necessary to test a model.[89] Neither has been used to add a condition: the regulation and the coverage determination still reach only diabetes and renal disease, and this report takes no position on whether either authority could reach them.

The hours are set in a coverage determination

The three-hour and two-hour limits appear in neither the statute nor the regulation. The regulation establishes the limitation and its exception, and the numbers are set by National Coverage Determination 180.1, which has carried them unchanged since 2002.[90] The decision memorandum gives the agency's reasons. CMS set duration and frequency through the coverage determination process rather than by regulation, describing it as "a more open public forum." Finding no trials on the optimal number or frequency of visits, it relied on the statute's direction to consider protocols of dietitian or nutrition professional organizations; it read the American Dietetic Association's diabetes protocols as supporting three hours in the first year and two thereafter, applied the same hours to renal disease although that association had recommended 5.5 hours in the first year and the National Kidney Foundation at least five visits a year, and said it would review the published studies when more data became available.[91] The committee left those limits to the agency expressly; the instrument is available, and as of September 11, 2026, the hours had not been formally reconsidered since 2002. A request to do so would face the evidentiary gate described above.

The comparison benefit's hours sit in a different instrument and have not moved either. Diabetes self-management training's 10 initial hours and two follow-up hours a year are fixed by regulation and have stood since the section was promulgated in December 2000; the section has been amended twice since, neither time reaching those hours.[92]

The billing restriction sits in coverage determinations, with a qualification

National Coverage Determinations 210.11 and 210.12 are subject to reconsideration on the terms set out above, and independent billing by dietitians would also depend on qualification and payment rules written for medical nutrition therapy.

Expansion of a tested model under section 1115A(c)

Under section 1115A(c) of the Social Security Act, the Secretary may, "through rulemaking, expand … the duration and the scope of a model that is being tested," taking into account the model's evaluation, if the Secretary determines that the expansion is expected to reduce spending without reducing the quality of care or to improve the quality of patient care without increasing spending, the CMS Chief Actuary certifies that it "would reduce (or would not result in any increase in) net program spending," and the Secretary determines that it would not deny or limit coverage.[93] The authority reaches only a model already under test or a demonstration project of a kind the statute specifies. A search of the model inventory of the Center for Medicare and Medicaid Innovation (the Innovation Center) on September 11, 2026, found none whose tested intervention is Medicare nutrition therapy or nutrition therapy delivered by dietitians, although several broader models have included a dietitian consult or dietary counseling as one component.[94] The route itself has been used for a lifestyle intervention: the Medicare Diabetes Prevention Program was expanded under section 1115A(c) in 2016, after an Innovation Center award had tested the program and the Chief Actuary had certified that expansion would not increase spending.[95] And when commenters asked CMS in 2024 to add medical nutrition therapy to the patient engagement incentives of a kidney transplant model, the agency declined to finalize the addition because its proposed rule had not included it.[96]

The price sits in statute and the annual payment rule

The claims record shows that the decline in constant dollars was predominantly in the allowed charge per service. On the published cells, holding the 2019 code mix fixed changes the 2025 average allowed charge per allowed service by less than three cents ($28.21 against $28.23, in constant 2025 dollars; allowed services are submitted less denied services). Allowing the unpublished cells their full range, the change in code mix between 2019 and 2025 moves the average allowed charge per service by at most 1.1 percent in either direction, so the price effect is not a change in the mix of codes billed. That charge is based on 85 percent of the fee schedule amount, the product of relative values CMS assigns each code in its annual payment rule, adjusted for locality, and a conversion factor whose annual update Congress fixes in statute (0.0 percent for 2020 through 2025; 0.25 percent, or 0.75 percent for qualifying alternative payment model participants, from 2026). The factor has not kept pace with inflation as measured by the Consumer Price Index for All Urban Consumers, even with the temporary increases Congress enacted for 2021 through 2024 and for 2026, which do not carry forward.[97] That index is used because the question here is what payments are worth in general prices; the Medicare Economic Index measures practice costs and would answer a different question.

Over 2019 to 2025, total relative value units for 97802 in the non-facility setting rose 4.8 percent while the conversion factor fell 10.2 percent; the arithmetic is in Appendix C, which also describes a proposal in the 2027 payment rule that bears on what the claims record contains.

Discussion

Medicare's nutrition therapy benefit is small, and it has been small throughout the 16 years of claims examined here: allowed charges on fee-for-service carrier claims were about $13.4 million in 2025, and in 2021 CMS wrote that "less than 2 percent of the estimated 14 million eligible Medicare beneficiaries have accessed MNT."[102] Published studies have also reported low use of this benefit and of the training benefit it is compared with here. In a 20 percent sample of fee-for-service beneficiaries newly diagnosed with diabetes in 2010, about 5 percent used diabetes self-management training (Strawbridge et al., *Health Education & Behavior*, 2015).[103] A 2023 review reported low use of nutrition therapy, and numbers of registered dietitians, and of those board certified in renal nutrition, that it judged inadequate, relative to the estimated number of Medicare-eligible adults with self-reported chronic kidney disease in each state, with differences across states (Lee et al., *Advances in Kidney Disease and Health*, 2023).[104] On the public record, the benefit's limits were set by decisions taken once: a referral-based design recommended and a diagnostic limit added to it when enacted; a required report, delivered late, that found there may be a benefit for two conditions, found no supportive studies for others, could not compare dietitians with physicians, and made no recommendation; preventive dietary counseling covered when a primary care practitioner bills for it, including when a dietitian furnishes it under that practitioner's supervision; and counseling determinations not formally reconsidered since November 2011. The American Dietetic Association's request of July 2011 to expand coverage through the coverage determination process was answered, by its own account, with an informal request from CMS to comment instead on the counseling determinations then proposed.[105]

Alongside those decisions, the claims record shows a divergence these data do not explain: in 2025 at least 72 percent of submitted group nutrition therapy services on fee-for-service carrier claims were denied on any reading of the file's unpublished cells, against at most 39 percent for group diabetes self-management training, and the widening of that gap the estimator shows since 2019 lies in claims coded as telehealth, most of them in one pricing locality of one contractor's jurisdiction, billed with place of service 02 and modifier 95 by dietitians, although the file's unpublished cells leave that change unestablished. The file records no reason for denial.

None of that establishes that any single decision was mistaken. It establishes that the choices that set the hours and the counseling restriction were administrative, that the agency stated its reasons for them in decision memoranda on the public record, and that, although the regulation's referral and eligibility terms have been amended, the hours and the counseling determinations stand as they were set. Independent billing of that counseling by dietitians would also depend on qualification and payment rules written for medical nutrition therapy, which a reconsideration would not itself change.

Sorting the limits by instrument also yields a negative result, with limits of its own. Two limits on hours govern two adjacent benefits serving overlapping populations through the same claims system. One sits in a regulation and has stood since 2000; the other sits in a coverage determination and has stood since 2002. The instruments differ in what reopening them requires, notice-and-comment rulemaking in one case and a reconsideration any requester may seek in the other, and neither moved. Over the same years, limits held in other instruments did move: Congress raised Medicare's share of payment for these services to 100 percent from 2011, and the agency amended the regulation's referral and renal eligibility terms in its payment rule for 2022 and removed the glucose-test criteria from the regulation's definition of diabetes in its payment rule for 2024. Two cases with the same outcome cannot show whether the instrument bears on whether reopening happens, and limits held in statute and in regulation have both moved and stood still. Where a limit is lodged determines what reopening it would require; whether it also bears on how often reopening happens is a question this record raises and cannot settle.

Measured against the definition of drift in the Introduction, a policy whose effects change because its terms stay fixed while the circumstances around it move, the record shows the circumstances moving around two of these limits, and for the counseling determinations it does not show that their effects changed. The counseling determinations have stood while the Task Force replaced the recommendations underlying them twice each, in 2014 and 2020 for 210.11 and in 2012 and 2018 for 210.12. The price is the clearer case: the conversion factor's statutory update was 0.0 percent for 2020 through 2025 while consumer prices rose, so a term that did not move contributed to the fall in the constant-dollar allowed charge per service. The covered conditions, the practitioner standard and the hours have also stood; this report does not show that the circumstances they were set against have moved, and it makes no claim that any of these outcomes was intended.

Some of this benefit's limits are held in statute, where 16 bills since 2000 have not moved them. Others sit in instruments that carry their own reconsideration procedures, including, since 2013, a discretionary review of determinations more than ten years past their last review. The texts of 210.11 and 210.12 still state, as of September 11, 2026, that they were last reviewed in November 2011, and CMS's text dates 180.1's last review to December 2021 although no national coverage analysis of it has been opened since 2002. Foote's caution applies to this conclusion as well: an administrative instrument that is legally open may be politically closed, and this report measures only the first.

Conclusion

Congress fixed the benefit's covered conditions, referral requirement, practitioner standard and payment percentages in statute, where 16 bills to broaden it since 2000 have not been enacted. The agency set the hours in National Coverage Determination 180.1 in 2002 and who may bill preventive dietary counseling in Determinations 210.11 and 210.12 in 2011; it can reconsider each without Congress, and as of September 11, 2026, it had not formally reconsidered any of them. Independent billing of that counseling by dietitians would also depend on rules written for medical nutrition therapy, and legal revisability is not political revisability. In the benefit's claims, group nutrition therapy was denied more often than group diabetes self-management training in every year from 2010 to 2025 on any reading of the file's unpublished cells; the file records no reason, and the gap is registered as a prediction for 2026.

Prior dissemination and corrections

Some material in this report appeared earlier in the author's own writing and public comments. Each item is listed so that readers can weigh it, and each statement this report corrects is corrected here, dated September 29, 2026.

1. **Website figures pages (July 27 and August 4, 2026) and essays (July 31, 2026, for paid subscribers, and August 27, 2026).** They make two points this report also makes: that the hours are set by a national coverage determination rather than by statute or regulation, and that the obesity counseling covered under National Coverage Determination 210.12 is billed by primary care practitioners. They contain none of the claims tabulation, the 2000 and 2004 documentary record, the history of section 1861(ddd), the review history of the determinations or the reconsideration standard. **Correction to the July 31 essay, posted on that essay and dated September 16, 2026.** The essay says the eligible diagnoses can be changed by "an act of Congress or a rulemaking." That is wrong as to rulemaking: the covered conditions are set in section 1861(s)(2)(V) of the Social Security Act, under which the Secretary may add criteria, not conditions, so changing them takes an act of Congress, subject to the two authorities described under Covered conditions are set in statute. The correction makes that part of the essay's case harder, not easier. The essay also says that the 2022 version of National Coverage Determination 180.1 ended competition between the hours of nutrition therapy and diabetes self-management training. That is also wrong: the sentence covering both services in the same episode of care "without decreasing either benefit" has been in the determination since its original version, effective October 1, 2002. Both were identified in internal checks made before this report's release, the first in a prior-dissemination audit on September 11, 2026. The essay's point that the

hours can be reconsidered without Congress stands. Both statements were confirmed in the published essay, not only in the local draft, by reading the live paid post on September 22, 2026; the dated correction note is posted on that essay, headed "Correction, 16 September 2026", and states that the original text is left unchanged so the record is clear.

2. **A figures page and appendix dated July 30, 2026, withdrawn on August 31, 2026.** They were withdrawn while a version of this analysis was being prepared for journal peer review, not for an error of fact. They reported calendar year 2024 use, provider counts and total allowed charges for the five nutrition therapy codes from a different CMS data product, Medicare Physician and Other Practitioners by Geography and Service, which is compiled and suppressed differently from this report's source, the Physician/Supplier Procedure Summary. The withdrawn page reported 2024 and this report's spending total is for 2025, so the two totals are neither the same measure nor consecutive points in one series, and a difference between them should not be read as a change between years. No figure from the withdrawn page is used here. As of September 16, 2026, the page, the appendix and the five figure images return no content at the site's own address or at its hosting platform address. The 88 production deploys dated July 30 to September 11, 2026, whose permalinks still served them were deleted on September 16, 2026; all five sampled permalinks were then re-checked and return no content for the page, the appendix or a figure image, and a listing of the site's deploys that day found none from that window. Copies held by third-party archives, if any, are outside the author's control.

3. **Short commentaries on Substack, reposted on the author's website: "One Word" (August 4, 2026), "The Score" (August 18, 2026), "On the Record" (September 2, 2026) and "Should Not Be Billed Separately" (September 3, 2026).** They discuss the calendar year 2027 proposed rule provisions this report describes in one section, and "The Score" and "On the Record" report the committee record of Medical Nutrition Therapy Act bills of recent Congresses. This report page-cites the rule and covers the legislative record from 1995.

4. **Published articles.** The author's pieces in Health Affairs Forefront (July 16, 2026) and Nutrition Today (August 2026) each mention the Medical Nutrition Therapy Act; neither contains the claims analysis, the documentary record or the instrument analysis. A third article, "The Forty-Year Freeze: How Dietetic Salaries Fell Behind Their Peer Professions" (Nutrition Today, in press), shares four points of background with this report: that the benefit covers diabetes and renal disease on a physician's referral at 85 percent of the physician fee schedule amount; that the Institute of Medicine's 2000 report found nutrition therapy effective for five conditions, among them diabetes and kidney failure; that National Coverage Determination 180.1 still carries the three-hour and two-hour limits of its original version; and that the statute's practitioner definition still reads "baccalaureate or higher degree." A search of its accepted text on September 15, 2026, found no claims figures, denial rates or allowed charges, and no discussion of the counseling determinations, the decision memoranda or the reconsideration process.

5. **"Three conditions" and "two diagnoses."** The author's earlier pieces counted the conditions both ways. Health Affairs Forefront and Nutrition Today said three: the Nutrition Today article names them as "diabetes, non-dialysis kidney disease, and the first three years after a kidney transplant," which counts the regulation's first two renal categories as one condition and the 36 months after a transplant as another, and the Health Affairs Forefront piece gives the number without naming the conditions. The July 31 essay, "The Score" and other website and newsletter pieces said two, as does "The Forty-Year Freeze." This report gives no count and names what the statute names, "diabetes or a renal disease," which the regulation defines to reach chronic renal insufficiency, end-stage renal disease when dialysis is not received, and the 36 months after a kidney transplant. The website and newsletter pieces were edited on September 24, 2026 to name the conditions rather than count them.

6. **Docket comment of August 6, 2026 (tracking number msh-p900-yypp).** It describes the benefit as "three hours in the first year and two each year after (42 CFR 410.130 through 410.134)," which attributes the hours to the regulation. This report locates the numbers in National Coverage Determination 180.1; the regulation, 42 C.F.R. § 410.132(b), sets out the limitation and its exception without stating the hours. Regulations.gov does not allow a posted comment to be edited, and the comment period closed on September 14, 2026; this note is the correction. The quotation is from the comment as posted, read at regulations.gov (CMS-2026-2377-2453) on September 16, 2026.

7. **A per-unit payment amount from 2002.** Two pieces printed a Medicare payment for a fifteen-minute unit of nutrition therapy that dated from 2002: "The Third Front" (July 30, 2026) in its text and charts, and "The Middleman Will See You Now" (July 22, 2026) in a chart. The amount, $14.15, is 0.46 relative value units multiplied by the calendar year 2002 conversion factor multiplied by 85 percent, and it reproduces on no later factor. A physician checked "The Third Front" against his own locality in public and was right. It was corrected on August 2, 2026; its charts, which that correction said had been rebuilt, were replaced on September 23, 2026. "The Middleman Will See You Now" carried a correction note on its website copy from August 2026; its chart was replaced, and its Substack copy corrected, on September 24, 2026. No figure from either piece is used here, and the schedule amounts in Appendix C (The fee arithmetic) are re-derived for calendar year 2026.

Corrections to this report after release are dated, labelled and appended (see Corrections).

Data availability

The plan registering the group-code denial gap as a prediction for the calendar year 2026 claims (task R3-T27; SHA-256 52cc9324ef685d00cca237202ebdf1deeof421ebd88fe10a87c0d37ca8a95731, hashed September 29, 2026, with an RFC 3161 timestamp of the hash from FreeTSA, 12:53:09 UTC) and the literature and coverage-database search behind the gap statement in the Introduction (task R3-T28) are deposited with the data. The copy of the plan in data versions 1.0 and 1.1 differs from the hashed file in one line (the hashed file also names the report by its earlier working number), so that copy does not have the hash printed here; data version 1.2 adds the hashed file, and the timestamp verifies against it.

All primary sources are public and free: the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025 (data.cms.gov; published files and application programming interface, retrieved September 2026); CMS Medicare Monthly Enrollment (data.cms.gov); Bureau of Labor Statistics series CUURoooosAo, annual averages; Table 23 of the 2002 physician fee schedule final rule (66 Fed. Reg. 55,246); the Government Publishing

Office's bill texts, bill status files and Congressional Record (GovInfo); the Federal Register, eCFR, United States Code, CMS program manuals and transmittals, and the Medicare Coverage Database, as cited in the notes; and GAO-25-107623 (Government Accountability Office, September 2025). Beneficiary and rendering-provider counts are from the CMS Medicare Physician and Other Practitioners by Geography and Service data, data years 2013 to 2024 (the years published as of September 15, 2026), national rows for codes 97802 and 97804 (data.cms.gov application programming interface, retrieved September 15, 2026, and checked field by field against the annual files), with the by Provider and Service data for the same years used to test how the national rows are aggregated. Fee schedule amounts are computed from the CMS national physician fee schedule relative value files (PPRRVU), every release published for calendar years 2010 to 2026, retrieved from cms.gov on September 15, 2026, except the calendar year 2010 releases, ten files covering six releases, which cms.gov no longer served on that date and which come from Internet Archive captures of the same CMS addresses (so does a calendar year 2009 release that no table uses). The eighty files in all contain Current Procedural Terminology code descriptors, copyright American Medical Association, so the data record carries the values the analysis reads from them (the five nutrition therapy codes, without the descriptors), a table of each file's address and SHA-256, and two scripts, one that downloads the originals and checks each against its SHA-256 and one that checks the extract against that table. The conversion factor in effect in each year, including the changes within 2010, 2015 and 2024, is taken from the annual physician fee schedule final rules and their correction notices in the Federal Register, publication years 2009 to 2025, retrieved September 15, 2026, read against 42 U.S.C. 1395w-4(d) and (t) and 42 U.S.C. 1395l(a)(1)(T) (uscode.house.gov preliminary text, captured September 15, 2026); the conversion factor tables that the Federal Register prints as images were read from page images of the Government Publishing Office PDFs, and those readings are deposited with the code.

Deposited at Zenodo in a data record (version 1.2 DOI 10.5281/zenodo.23571771; version 1.1 DOI 10.5281/zenodo.23063467; version 1.0 DOI 10.5281/zenodo.23044636; concept DOI 10.5281/zenodo.23044635): the archived procedure summary rows for the seven codes, by year and retrieval route, with each file's retrieval time and SHA-256 hash; the enrollment, price and cost-estimate files (the relative value files as the extract and the table described above); the legal and documentary source captures, with their retrieval dates where its manifests and logs give them (for the legal sources folder, in a retrieval log added in version 1.2; the Congressional Record and hearing texts of the sweep of September 15, 2026, carry no time for each file); the bill texts and status files, including S. 1973 and S. 1925, with hashes; the extraction and analysis code; the separate re-derivation gate and its report; the dated verification sheet; and a SHA-256 manifest of the archive and another of the supplement. One archived source cited in this report is not redistributed in version 1.2 of the data deposit (versions 1.0 and 1.1 carried a scan of it in error): Eleanor D. Kinney, "National Coverage Policy under the Medicare Program: Problems and Proposals for Change," *Saint Louis University Law Journal* 32, no. 4 (1988): 869–975, a copyrighted law-review article, not a government work. Data version 1.2 holds two files. The full archive is the version 1.0 archive without 103 files (the scan of that article; the eighty fee schedule files described above; fifteen hearing and Congressional Record files that print private persons' contact details; six other files of third-party text or details; and one script of the author's that its header marks as an internal record), with the abstract removed from thirty-one files of bibliographic metadata and records, and with the fee schedule files replaced by the extract, the table and the scripts described above; its manifest keeps a row for each of the 103, marked not deposited. The supplement adds the plan as hashed, eighteen Federal Register documents and two CMS documents that the version 1.0 archive lacked, the output files of the beneficiary count task, a retrieval log for the legal sources, and the version 1.2 text of this report with the checks run on it; its README and manifest list the rest. Apart from the author's own files (code, logs, plans, notes and a scratch draft of this report's text), the archived files are public records of a United States government agency, court or legislature, bibliographic metadata records (from which version 1.2 removes abstracts and publishers' summaries), or tables this report's own code computed from those records; one saved web page of another organization, an access-challenge page that holds no content of its own, is also among them. Some government publications in the archive reprint material that others own (code descriptors, copyright American Medical Association, and a photograph credited to a third party in a Government Accountability Office report), as the licence notes say. Copyrighted third-party works cited in this report, including the Institute of Medicine report and the law-review and book sources, are not redistributed; the deposit keeps their bibliographic metadata and the author's notes, which quote short passages from them. The report itself is deposited as a separate record (version 1.2 DOI 10.5281/zenodo.23571769; version 1.1 DOI 10.5281/zenodo.23049372; version 1.0 DOI 10.5281/zenodo.23044620; concept DOI 10.5281/zenodo.23044619), which carries the data record as a related identifier.

How this report was checked

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every reported number was regenerated by running the analysis code (Data availability says what of it is deposited) and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 741 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

The verification sheet is dated September 16, 2026. Appendix B says which of the deposited scripts check their inputs and what runs from the deposited record.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

In this report the tool was Claude (Anthropic), used through Claude Code, a commercial product available from Anthropic, from August to October 2026: model Claude Opus 5 in August and September, and Claude Opus 5.5 and Claude Sonnet 5.5 for the October audits, corrections and edits. It also retrieved, archived and checked the legal and documentary sources and formatted the notes. Every figure drawn from the claims, enrollment,

price, cost-estimate and bill files was recomputed by separate code from the author's archive of the primary files. The author is not aware of any interest of the tool's developer in the subject of this report; his application to the developer's AI for Science program and his enrollment in a related university study are disclosed above.

Corrections

Corrections to this report are dated, labelled and appended, never silently swapped; each names what was wrong, where it came from, who found it and whether the argument survives. The version history of the series is kept in the series Introduction. Corrections made at release to the author's earlier writing and public comments are listed under Prior dissemination and corrections.

Correction, version 1.1, September 30, 2026. The plain-language summary described Medicare's nutrition therapy benefit as "the one a dietitian bills directly". That was too narrow: dietitians also bill Medicare for diabetes self-management training, as the 2025 Physician/Supplier Procedure Summary shows for claims under the registered dietitian or nutrition professional specialty. The summary now describes the benefit as the one Congress wrote for services by registered dietitians and nutrition professionals. The wording was the author's, in drafting; it was found on September 29, 2026, by the fact-check of a companion commentary. No figure, table or finding changes, and the argument is unaffected. Version 1.1 also rewords the status note and the statement on the use of artificial intelligence. The report is described as self-published and not a journal publication. The status note now says that the author checked the report through a review he directed and reviewed the results, sources and text, and that AI agents re-derived the numbers. The earlier sentence that the recomputations were not reviewed by a person is removed from both statements, because the author reviewed the results. Version 1.1 of the data record keeps the version 1.0 archive unchanged, with the gate as run on version 1.0, and adds a supplement holding this version's text, the gate as run on it, which differs in its status-note check, and the record of that run.

Correction, version 1.2, October 22, 2026. The report said that CMS used section 1861(ddd) of the Social Security Act "twice in November 2011". That was wrong. CMS used it five times in October and November 2011. National Coverage Determinations 210.8 (alcohol misuse screening and counseling) and 210.9 (depression screening) took effect on October 14, 2011. Determinations 210.10 (screening and counseling for sexually transmitted infections) and 210.11 (intensive behavioral therapy for cardiovascular disease) took effect on November 8. Determination 210.12 (intensive behavioral therapy for obesity) took effect on November 29. The Medicare Coverage Database lists all five under the benefit category "Additional Preventive Services". Of the 345 national coverage determinations in the database on October 2, 2026, twelve are in that category, and none of the other seven first took effect in 2011. Of the five, only the texts of 210.11 and 210.12 mention diet or nutrition, so they are the two the report discusses. The count was the author's, in drafting. An AI fact-check the author directed found it on September 30, 2026, and the database confirmed it on September 30, October 1 and October 2, 2026. The sentence now gives all five, and note 33 cites the other three. The finding that neither 210.11 nor 210.12 has been formally reconsidered since November 2011 is unchanged, and the argument is unaffected.

Correction, version 1.2, October 22, 2026. The report also did not record that CMS changed the regulation's definition of diabetes in 2024. CMS amended 42 C.F.R. § 410.130 in its payment rule for calendar year 2024 (88 Fed. Reg. 78,818, amendatory text at 79,529 (Nov. 16, 2023)), effective January 1, 2024. The amendment removed the glucose-test criteria from the definition of diabetes for medical nutrition therapy. Until then the definition read "diabetes mellitus, a condition of abnormal glucose metabolism diagnosed using the following criteria" and then listed three glucose-test criteria, which Table 1 gives. It now reads "diabetes mellitus, a condition of abnormal glucose metabolism." The same rule removed the identical text from 42 C.F.R. § 410.140, the definition of diabetes in the subpart on diabetes self-management training. National Coverage Determination 180.1 refers to the regulation's definition and was not changed. Table 1 and two sentences of the text now record the change. The report already counted the 2024 payment rule among the four that amended the benefit's regulations, for § 410.72(d), so that count does not change. The omission was the author's, in drafting. An AI fact-check the author directed found it on October 1, 2026, by comparing the eCFR's versions of June 1, 2023 and June 1, 2024. No figure changes. The change adds one more limit that CMS altered without Congress. It did so by the route Table 1 already describes for regulatory terms, so it fits the report's account. It does not touch the finding that the hours and the counseling determinations have not been reconsidered, and the argument is unaffected.

Correction, version 1.2, October 22, 2026. The report described its data record inexactly in eighteen places, and the text now says what the record holds. The main ones follow, and the verification addendum in the data record says where each is. The plan registered for the 2026 claims was deposited in a copy that differs in one line from the file whose hash the report prints. Some Federal Register and CMS documents, and the retrieval dates of the legal sources, were not in the record. The 2010 relative value releases were ten files, not four. The note of the September 29 re-check was called a log. What the scripts and the validity gate do was stated more broadly than the code supports; Appendix B now says what runs from the record. The status note said that every reported number was regenerated from the deposited code; it now says that every reported number was regenerated by running the analysis code, and Data availability says what of that code is deposited. The report said that one copyrighted law-review article it cites was not redistributed in the data deposit; data versions 1.0 and 1.1 in fact carried a scan of it, in error. Data version 1.2 omits it, and the sentence is now true of the record it names. A read-only AI audit the author directed found these places on October 2, 2026. Data version 1.2 also omits 102 other files that versions 1.0 and 1.1 carried: eighty fee schedule zip files, fifteen hearing and Congressional Record files that print private persons' contact details, four saved web pages of a third party that carry its copyright notice, one file of bibliographic records that held third parties' contact details, one file of library catalogue search results that carried publishers' summaries, and one script of the author's that its header marks as an internal record. Earlier data versions also carried Medicare fee schedule files that include the American Medical Association's copyrighted code descriptors; data version 1.2 carries only the values the analysis reads, without the descriptors. Each original file's address and SHA-256 are in the record, with scripts that download and check the files. The manifest keeps a row for each omitted file, marked not deposited. Data version 1.2 also removes the abstract, and the copyright notice that went with it where there was one, from thirty-one files of bibliographic metadata and records, because abstracts and publishers' summaries are third parties' copyrighted text; every other field is as in version 1.0. A second read-only AI audit, on October 6, 2026, found further abstracts and the files that print private persons' contact details, and a review of the files for copyright on the same day found the code descriptors. The note that came with the version 1.0 archive said that nothing underlying a figure, table or quotation was left out

and that third-party documents were reproduced as issued and not edited. Neither was exact. Seventy-three lines of twenty captured text files were replaced by a marker, and a journal's name was replaced in four files of bibliographic metadata. The note in the version 1.2 archive says what the archive holds. Data version 1.2 adds the missing files that could be shared; Data availability lists them. No finding changes, and the argument is unaffected.

Updated October 22, 2026: the declaration of interests was corrected and completed, and its last clause on the products and services of Vitae Arete LLC now refers to the analysis and findings of this report. The July 29, 2011, request is now credited to the American Dietetic Association, the name of the Academy of Nutrition and Dietetics until January 2012. Figure 1 was redrawn from the current inputs; no plotted value changed, and its note now covers all 23 bills. Wording was tightened where "neither determination" and "both determinations" could be read as covering more than 210.11 and 210.12. The statement on the use of artificial intelligence now says that Claude also searched and screened the literature, and gives the months of its use and the models used in each. The status note and the section on how the report was checked now print 741 checks, up from 685. None of this changes a finding.

Glossary

- **Aggrieved beneficiary.** A beneficiary entitled to benefits and in need of coverage for a service denied under a national coverage determination; the only party who may challenge that determination before the Departmental Appeals Board.
- **Allowed charges.** The amounts Medicare recognizes for payment of a service, including the beneficiary's share.
- **Benefit category.** The statutory Part A or Part B benefit into which an item or service falls; a national coverage determination cannot establish coverage outside one.
- **Budget neutrality.** The rule that changes in relative values may not change total fee schedule spending beyond a statutory limit, enforced by an adjustment to payment.
- **Carrier claims.** Claims from physicians and other suppliers processed by Medicare's Part B contractors, as distinct from institutional claims from hospitals and other facilities.
- **Carrier number.** The code in the procedure summary for the Medicare contractor jurisdiction that processed a claim.
- **Conversion factor.** The dollar amount by which relative value units are multiplied to produce a fee schedule amount; its annual update is set in statute.
- **Exact bounds.** The lowest and highest rates consistent with a file's unpublished cells, here treating each unpublished count as at most 10.
- **Formally reconsidered.** In this report, a national coverage determination for which CMS has opened a national coverage analysis in the Medicare Coverage Database.
- **Incident to.** The arrangement under which auxiliary personnel furnish a service under a practitioner's direct supervision and the practitioner bills for it.
- **Instrument.** The legal form in which a limit is recorded: statute, regulation, national coverage determination or annual payment rule.
- **Modifier.** A two-character code on a claim line that adds information about how a service was furnished or billed. CMS's descriptors in the July 2026 Healthcare Common Procedure Coding System file: GA, "waiver of liability statement issued as required by payer policy, individual case"; GX, "notice of liability issued, voluntary under payer policy" (added April 1, 2010); GY, "item or service statutorily excluded, does not meet the definition of any [M]edicare benefit or, for non-[M]edicare insurers, is not a contract benefit"; GZ, "item or service expected to be denied as not reasonable and necessary." Modifier 95 is the telehealth modifier for services furnished by audio and video, paired on Medicare telehealth claims with place of service 02 or 10 (*Medicare Claims Processing Manual*, ch. 26, § 10.5, rev. 12779, August 9, 2024).
- **National coverage analysis.** The review CMS opens to make or reconsider a national coverage determination.
- **National coverage determination.** CMS's statement of whether and on what terms an item or service is covered nationwide.
- **Place of service.** A two-digit code for where a service was furnished. Code 02, "Telehealth Provided Other than in Patient's Home," is for services received through telecommunication technology when the patient is not at home (effective January 1, 2017; description revised effective January 1, 2022 and applicable for Medicare from April 1, 2022). Code 10, "Telehealth Provided in Patient's Home," was introduced in 2022: effective January 1, 2022 and available to Medicare from April 1, 2022 (CMS Place of Service Code Set, page last modified February 17, 2026).
- **Pricing locality.** A geographic area within which fee schedule amounts are adjusted.
- **Published-cell estimator.** A denial rate that counts every unpublished denial count as zero and drops rows whose submitted count is unpublished.
- **Relative value units.** CMS's measures of the resources a service requires, set in the annual payment rule.
- **Route.** An authority that could change a limit without amending the instrument that holds it.
- **Service.** In the procedure summary, a billed unit; for a time-based code, a unit of time.
- **Substantive legal standard.** In the Medicare statute, a rule governing the scope of benefits, payment or eligibility that must be issued by regulation after notice and comment; national coverage determinations are excepted.

Appendix A. Data tables

Every table below was produced by script from the archived primary files (the data record carries them except the relative value files, which it holds as an extract); no value is typed by hand. Each table states its units, its source with the vintage and retrieval date, and the basis on which its figures are computed. Tables round to the nearest unit printed; Appendix B states the rounding rule in full, with the rule for sentences that draw a conclusion. The deposited result files, comma-separated or JSON, carry every series at full precision, including bounds at a suppression cap of 11 where the printed table gives only one cap.

Table A. Allowed charges, Medicare payment and deflation for the five nutrition therapy codes (97802, 97803, 97804, G0270 and G0271), calendar years 2010 to 2025, fee-for-service Part B carrier claims. Units: nominal United States dollars and constant 2025 dollars; enrollees are people. Basis: allowed charges are the amounts Medicare recognizes for payment, including the beneficiary's share, summed over cells whose allowed charge is published, so that column is a floor; the next column adds what Medicare paid in rows whose allowed charge is unpublished, which is the widest the published file supports. Medicare payment is published in every row. Constant dollars use Consumer Price Index for All Urban Consumers annual averages, series CUUR0000SA0, base 2025. Enrollment is CMS Medicare Monthly Enrollment, national rows, Part B enrollees in original fee-for-service Medicare; that product's national annual rows begin in 2013, so the last two columns are marked not available for 2010 to 2012. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026. Enrollment retrieved September 11, 2026 (dataset last modified August 24, 2026); CPI-U retrieved September 11, 2026 (file last modified August 12, 2026).

Year	Allowed charges, published cells (nominal)	Allowed charges plus payment in rows whose allowed charge is unpublished (nominal)	Medicare payment, all rows (nominal)	CPI-U annual average	Factor to constant 2025 dollars	Allowed charges, published cells (constant 2025 dollars)	Part B enrollees in original fee-for-service Medicare	Allowed charges per fee-for-service Part B enrollee (constant 2025 dollars)
2010	$7,885,394	$7,922,250	$6,004,948	218.056	1.4764	$11,642,180	not available	not available
2011	$9,333,399	$9,369,389	$9,314,584	224.939	1.4312	$13,358,389	not available	not available
2012	$10,577,666	$10,617,333	$10,573,057	229.594	1.4022	$14,832,293	not available	not available
2013	$11,832,526	$11,874,339	$11,647,604	232.957	1.3820	$16,352,370	33,147,099	$0.49
2014	$12,264,054	$12,294,260	$12,007,384	236.736	1.3599	$16,678,183	33,189,471	$0.50
2015	$12,690,159	$12,725,318	$12,431,002	237.017	1.3583	$17,237,193	33,286,402	$0.52
2016	$13,084,715	$13,121,025	$12,818,991	240.007	1.3414	$17,551,706	33,714,966	$0.52
2017	$13,183,633	$13,215,947	$12,911,368	245.120	1.3134	$17,315,512	33,561,845	$0.52
2018	$13,531,865	$13,569,764	$13,250,988	251.107	1.2821	$17,349,135	33,365,535	$0.52
2019	$15,614,047	$15,653,274	$15,286,776	255.657	1.2593	$19,662,412	33,076,778	$0.59
2020	$13,054,716	$13,156,144	$13,012,327	258.811	1.2439	$16,239,164	32,244,894	$0.50
2021	$13,717,231	$13,807,204	$13,803,714	270.970	1.1881	$16,297,621	30,841,830	$0.53
2022	$12,865,079	$12,968,902	$12,797,685	292.655	1.1001	$14,152,576	29,655,517	$0.48
2023	$12,617,416	$12,710,741	$12,421,006	304.702	1.0566	$13,331,350	28,623,931	$0.47
2024	$13,289,828	$13,382,689	$13,101,100	313.689	1.0263	$13,639,519	27,982,142	$0.49
2025	$13,405,259	$13,492,181	$13,128,054	321.943	1.0000	$13,405,259	28,110,355	$0.48

Notes: The 2025 CPI-U annual average rests on the eleven monthly indexes the Bureau of Labor Statistics published for that year; no October 2025 index was published. Counts of enrollees are people, not services, and a beneficiary enrolled for part of a year is counted by the product's own rule. The per-enrollee column divides a fee-for-service carrier-claims total by fee-for-service Part B enrollment; it is not a rate of use among eligible beneficiaries, because eligibility for this benefit is limited to beneficiaries with diabetes or renal disease.

Table B. Change in allowed charges for the five nutrition therapy codes divided into volume and price, with exact bounds, fee-for-service Part B carrier claims. Units: percent change over the period, and percent of the change in constant-dollar allowed charges for the price share. Basis: allowed charges in constant 2025 dollars (CPI-U annual averages, series CUUR0000SA0); allowed services are submitted services less denied services; the unit-value price is allowed charges per allowed service; the Fisher index holds the code mix fixed; the code-mix effect is the unit-value price divided by the Fisher index, less one. Bounds treat each unpublished count as at most 10, with a cap of 11 shown for the price share, and span both treatments of allowed charges (published cells only, and published cells plus what Medicare paid in rows whose allowed charge is unpublished). Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026.

Period	Allowed charges, constant 2025 dollars	Allowed services	Allowed services, bounds (cap 10)	Price, unit value	Price, Fisher index	Code-mix effect	Code-mix effect, bounds	Price share of the change, unit value	Price share, bounds (cap 10)	Price share, bounds (cap 11)	Price share, Fisher index
2010 to 2025	+15.1	+42.3	+29.7 to +58.4	-19.1	-18.0	-1.32	not computed	not interpretable	not interpretable	not interpretable	not interpretable
2016 to 2025	-23.6	+0.3	-6.5 to +10.5	-23.9	-23.8	-0.16	-1.24 to +1.05	101.3	74.9 to 137.5	72.3 to 140.9	100.7
2019 to 2025	-31.8	-8.8	-14.7 to +0.5	-25.2	-25.3	+0.09	-0.96 to +1.00	75.9	58.1 to 101.2	56.4 to 103.7	76.2

Notes: The price share is the logged price change as a percentage of the logged change in constant-dollar allowed charges. It is interpretable only when the two move in the same direction. Over 2010 to 2025 constant-dollar allowed charges rose while price fell, so the share for that period is not interpretable and is not used anywhere in this report; the volume and price columns for that period stand on their own. Bounds on the code-mix

effect were computed for the two periods the report uses and are marked not computed for 2010 to 2025. The bounds cover uncertainty from cells too small to publish, under the stated cap. They are not confidence intervals, and they do not cover coding or processing error. The procedure summary is a tabulation of processed claims rather than a sample, so no sampling standard error applies.

Table C. Submitted and denied services, published-cell denial rates and exact bounds at a suppression cap of 10 and of 11, for the seven codes and the pooled series, and the differences between them, calendar years 2010 to 2025, fee-for-service Part B carrier claims. Units: services (billed units, which for a time-based code are units of time) and percent of submitted services; differences in percentage points. Basis: the published-cell estimator is published denied services divided by published submitted services, which counts an unpublished denial as zero and drops rows whose submitted count is unpublished; submitted and denied services are sums of published cells and are therefore floors. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026.

Panel A. Denial rates by series and year.

Series	Year	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Submitted services, at most (cap 10)	Submitted services, at most (cap 11)
97802	2010	261,298	70,333	26.9	25.7 to 31.1	25.6 to 31.5	273,909	275,170
97802	2011	273,355	73,184	26.8	25.8 to 29.7	25.7 to 30.0	283,235	284,223
97802	2012	284,005	83,043	29.2	28.1 to 32.4	28.0 to 32.7	295,395	296,534
97802	2013	306,378	93,933	30.7	29.5 to 33.7	29.4 to 34.0	318,559	319,777
97802	2014	343,752	128,013	37.2	36.1 to 39.3	36.0 to 39.5	354,183	355,226
97802	2015	339,841	121,531	35.8	34.5 to 38.2	34.4 to 38.4	351,922	353,130
97802	2016	338,982	120,407	35.5	34.3 to 38.1	34.1 to 38.3	351,443	352,689
97802	2017	339,027	123,337	36.4	35.0 to 39.0	34.9 to 39.3	351,968	353,262
97802	2018	344,216	127,595	37.1	35.7 to 39.6	35.6 to 39.9	357,097	358,385
97802	2019	357,482	133,967	37.5	36.2 to 39.9	36.1 to 40.1	370,033	371,288
97802	2020	276,368	103,408	37.4	34.9 to 42.5	34.7 to 43.0	296,039	298,006
97802	2021	329,408	134,209	40.7	38.5 to 44.7	38.3 to 45.1	348,409	350,309
97802	2022	357,374	167,976	47.0	44.5 to 50.6	44.2 to 50.9	377,725	379,760
97802	2023	331,845	138,407	41.7	39.4 to 45.6	39.2 to 45.9	351,045	352,965
97802	2024	341,724	144,602	42.3	40.0 to 46.2	39.8 to 46.5	361,345	363,307
97802	2025	347,150	151,287	43.6	41.2 to 47.4	40.9 to 47.8	367,521	369,558
97803	2010	190,079	64,878	34.1	32.3 to 38.5	32.1 to 38.9	200,820	201,894
97803	2011	218,009	75,254	34.5	33.4 to 37.2	33.3 to 37.4	225,550	226,304
97803	2012	259,713	97,967	37.7	36.6 to 40.0	36.5 to 40.3	267,944	268,767
97803	2013	270,802	97,272	35.9	34.7 to 38.4	34.6 to 38.7	280,343	281,297
97803	2014	300,408	123,015	40.9	39.8 to 42.8	39.7 to 43.0	309,039	309,902
97803	2015	311,480	123,981	39.8	38.6 to 41.9	38.5 to 42.1	321,310	322,293
97803	2016	323,686	128,917	39.8	38.7 to 41.8	38.5 to 42.0	333,537	334,522
97803	2017	328,012	130,202	39.7	38.5 to 41.8	38.4 to 42.0	338,232	339,254
97803	2018	343,029	141,083	41.1	40.0 to 43.0	39.9 to 43.2	352,499	353,446
97803	2019	347,990	136,918	39.3	38.2 to 41.4	38.1 to 41.6	358,330	359,364
97803	2020	297,704	117,756	39.6	37.3 to 43.9	37.1 to 44.3	315,905	317,725
97803	2021	355,324	166,095	46.7	44.6 to 49.8	44.4 to 50.1	372,375	374,080
97803	2022	340,632	160,103	47.0	44.5 to 50.6	44.2 to 50.9	359,903	361,830
97803	2023	345,835	168,641	48.8	46.2 to 52.0	46.0 to 52.3	364,646	366,527
97803	2024	367,350	181,992	49.5	47.0 to 52.7	46.8 to 53.0	387,021	388,988
97803	2025	384,298	196,387	51.1	48.7 to 53.9	48.5 to 54.2	403,238	405,132
97804	2010	12,087	6,250	51.7	44.2 to 62.6	43.5 to 63.5	14,148	14,354
97804	2011	12,542	6,540	52.1	46.0 to 60.0	45.5 to 60.7	14,213	14,380
97804	2012	13,835	7,397	53.5	46.8 to 61.5	46.2 to 62.2	15,815	16,013
97804	2013	14,081	9,054	64.3	54.7 to 71.3	53.9 to 71.9	16,541	16,787
97804	2014	16,936	10,904	64.4	58.0 to 69.0	57.5 to 69.4	18,786	18,971

Series	Year	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Submitted services, at most (cap 10)	Submitted services, at most (cap 11)
97804	2015	15,633	10,172	65.1	56.9 to 70.5	56.2 to 70.9	17,874	18,098
97804	2016	15,958	10,113	63.4	55.8 to 69.0	55.2 to 69.4	18,119	18,335
97804	2017	15,789	10,340	65.5	57.9 to 70.9	57.2 to 71.4	17,859	18,066
97804	2018	16,841	11,061	65.7	58.4 to 71.2	57.8 to 71.7	18,941	19,151
97804	2019	16,463	10,878	66.1	58.3 to 71.5	57.6 to 72.0	18,673	18,894
97804	2020	7,268	5,095	70.1	50.3 to 81.7	48.9 to 82.5	10,138	10,425
97804	2021	10,684	8,515	79.7	64.1 to 85.6	62.9 to 86.1	13,274	13,533
97804	2022	12,827	10,579	82.5	69.0 to 86.6	67.9 to 86.9	15,327	15,577
97804	2023	15,103	12,159	80.5	68.7 to 85.0	67.7 to 85.4	17,693	17,952
97804	2024	16,575	14,039	84.7	70.9 to 88.3	69.7 to 88.6	19,815	20,139
97804	2025	17,874	15,474	86.6	73.9 to 89.5	72.8 to 89.8	20,944	21,251
G0270	2010	12,884	1,606	12.5	11.4 to 26.1	11.3 to 27.3	14,144	14,270
G0270	2011	16,859	1,816	10.8	10.1 to 19.8	10.0 to 20.7	18,049	18,168
G0270	2012	24,128	1,969	8.2	7.7 to 15.8	7.6 to 16.5	25,598	25,745
G0270	2013	33,572	3,195	9.5	9.0 to 16.3	9.0 to 16.9	35,472	35,662
G0270	2014	36,040	3,672	10.2	9.8 to 14.6	9.8 to 15.0	37,350	37,481
G0270	2015	55,683	7,558	13.6	13.2 to 17.0	13.1 to 17.4	57,433	57,608
G0270	2016	61,773	8,813	14.3	13.8 to 17.7	13.8 to 18.0	63,743	63,940
G0270	2017	61,747	5,884	9.5	9.3 to 12.8	9.2 to 13.2	63,487	63,661
G0270	2018	69,335	7,840	11.3	11.0 to 14.2	11.0 to 14.5	71,125	71,304
G0270	2019	88,619	8,812	9.9	9.7 to 12.6	9.7 to 12.8	90,609	90,808
G0270	2020	98,171	19,248	19.6	19.0 to 23.2	19.0 to 23.6	101,051	101,339
G0270	2021	93,225	16,583	17.8	17.3 to 21.6	17.2 to 22.0	95,955	96,228
G0270	2022	71,282	7,478	10.5	10.1 to 16.1	10.1 to 16.6	74,053	74,330
G0270	2023	65,803	6,820	10.4	10.0 to 15.6	10.0 to 16.1	67,943	68,157
G0270	2024	85,891	7,305	8.5	8.3 to 13.3	8.2 to 13.8	88,312	88,554
G0270	2025	97,842	9,733	9.9	9.7 to 14.2	9.7 to 14.6	100,312	100,559
G0271	2010	599	107	17.9	11.8 to 58.0	11.4 to 60.5	909	940
G0271	2011	556	234	42.1	26.7 to 68.9	25.8 to 70.6	876	908
G0271	2012	568	257	45.2	29.3 to 72.6	28.3 to 74.3	878	909
G0271	2013	1,062	366	34.5	24.0 to 60.2	23.3 to 61.9	1,522	1,568
G0271	2014	1,031	356	34.5	24.7 to 59.4	24.0 to 61.1	1,441	1,482
G0271	2015	1,555	455	29.3	24.1 to 46.9	23.7 to 48.4	1,885	1,918
G0271	2016	2,323	1,230	52.9	45.8 to 61.1	45.2 to 61.8	2,683	2,719
G0271	2017	1,706	709	41.6	34.0 to 58.0	33.4 to 59.3	2,086	2,124
G0271	2018	1,525	483	31.7	24.2 to 51.8	23.7 to 53.3	1,995	2,042
G0271	2019	1,208	461	38.2	28.5 to 58.8	27.8 to 60.3	1,618	1,659
G0271	2020	690	162	23.5	16.5 to 52.2	16.1 to 54.2	980	1,009
G0271	2021	559	76	13.6	8.3 to 52.9	8.0 to 55.2	919	955
G0271	2022	827	129	15.6	9.8 to 51.6	9.4 to 53.7	1,317	1,366
G0271	2023	871	309	35.5	24.1 to 60.0	23.4 to 61.6	1,281	1,322
G0271	2024	936	213	22.8	17.0 to 45.6	16.5 to 47.3	1,256	1,288
G0271	2025	699	133	19.0	12.6 to 53.2	12.1 to 55.3	1,059	1,095
G0108	2010	145,919	43,419	29.8	27.8 to 36.3	27.6 to 36.9	156,229	157,260
G0108	2011	158,942	50,955	32.1	30.6 to 36.3	30.4 to 36.7	166,763	167,545
G0108	2012	158,148	46,594	29.5	28.0 to 34.3	27.8 to 34.7	166,489	167,323

Series	Year	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Submitted services, at most (cap 10)	Submitted services, at most (cap 11)
G0108	2013	167,320	50,531	30.2	28.7 to 34.8	28.6 to 35.3	175,971	176,836
G0108	2014	178,084	58,401	32.8	31.4 to 36.6	31.2 to 37.0	186,165	186,973
G0108	2015	189,266	55,548	29.3	28.1 to 33.2	28.0 to 33.5	197,407	198,221
G0108	2016	194,137	53,555	27.6	26.4 to 31.8	26.3 to 32.2	203,118	204,016
G0108	2017	206,350	58,941	28.6	27.3 to 32.8	27.1 to 33.2	216,201	217,186
G0108	2018	219,192	64,742	29.5	28.2 to 33.6	28.1 to 34.0	229,323	230,336
G0108	2019	236,552	71,433	30.2	29.0 to 33.9	28.9 to 34.3	246,363	247,344
G0108	2020	186,801	47,618	25.5	23.2 to 34.4	23.0 to 35.2	205,532	207,405
G0108	2021	209,165	54,799	26.2	24.4 to 32.9	24.2 to 33.5	224,486	226,018
G0108	2022	218,319	65,658	30.1	28.0 to 36.4	27.9 to 37.0	234,160	235,744
G0108	2023	222,084	85,604	38.5	36.1 to 43.5	35.9 to 43.9	236,924	238,408
G0108	2024	197,501	83,895	42.5	39.6 to 47.5	39.3 to 48.0	211,991	213,440
G0108	2025	191,498	80,812	42.2	39.0 to 47.9	38.7 to 48.4	207,368	208,955
G0109	2010	204,528	68,128	33.3	32.9 to 35.3	32.8 to 35.5	207,318	207,597
G0109	2011	190,739	54,621	28.6	28.3 to 30.0	28.3 to 30.2	192,830	193,039
G0109	2012	180,802	52,128	28.8	28.5 to 30.4	28.5 to 30.6	182,823	183,025
G0109	2013	172,789	51,111	29.6	29.2 to 31.4	29.2 to 31.6	174,959	175,176
G0109	2014	158,403	53,231	33.6	33.2 to 35.2	33.2 to 35.3	160,304	160,494
G0109	2015	160,274	57,639	36.0	35.5 to 37.6	35.5 to 37.8	162,305	162,508
G0109	2016	150,396	42,238	28.1	27.7 to 30.0	27.7 to 30.2	152,357	152,553
G0109	2017	148,769	40,395	27.2	26.8 to 29.2	26.7 to 29.4	150,950	151,168
G0109	2018	143,133	39,780	27.8	27.4 to 29.8	27.3 to 30.0	145,314	145,532
G0109	2019	154,733	48,341	31.2	30.8 to 33.0	30.8 to 33.2	156,774	156,978
G0109	2020	52,039	12,397	23.8	22.7 to 30.5	22.6 to 31.2	54,620	54,878
G0109	2021	48,967	13,010	26.6	25.2 to 32.9	25.0 to 33.5	51,717	51,992
G0109	2022	55,608	19,200	34.5	33.0 to 39.6	32.9 to 40.1	58,138	58,391
G0109	2023	66,615	22,416	33.6	32.3 to 37.8	32.2 to 38.2	69,346	69,619
G0109	2024	62,762	20,639	32.9	31.5 to 37.3	31.4 to 37.8	65,432	65,699
G0109	2025	57,269	18,874	33.0	31.6 to 37.6	31.5 to 38.1	59,719	59,964
97802 + 97803 (individual nutrition therapy)	2010	451,377	135,211	30.0	28.5 to 34.2	28.3 to 34.6	474,728	477,063
97802 + 97803 (individual nutrition therapy)	2011	491,364	148,438	30.2	29.2 to 33.0	29.1 to 33.3	508,785	510,527
97802 + 97803 (individual nutrition therapy)	2012	543,718	181,010	33.3	32.1 to 36.0	32.0 to 36.3	563,339	565,301
97802 + 97803 (individual nutrition therapy)	2013	577,180	191,205	33.1	31.9 to 35.9	31.8 to 36.2	598,901	601,073
97802 + 97803 (individual nutrition therapy)	2014	644,160	251,028	39.0	37.8 to 41.0	37.7 to 41.2	663,221	665,127
97802 + 97803 (individual nutrition therapy)	2015	651,321	245,512	37.7	36.5 to 40.0	36.3 to 40.2	673,232	675,423
97802 + 97803 (individual nutrition therapy)	2016	662,668	249,324	37.6	36.4 to 39.9	36.3 to 40.1	684,979	687,210

Series	Year	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Submitted services, at most (cap 10)	Submitted services, at most (cap 11)
97802 + 97803 (individual nutrition therapy)	2017	667,039	253,539	38.0	36.7 to 40.4	36.6 to 40.6	690,200	692,516
97802 + 97803 (individual nutrition therapy)	2018	687,245	268,678	39.1	37.9 to 41.3	37.7 to 41.5	709,596	711,831
97802 + 97803 (individual nutrition therapy)	2019	705,472	270,885	38.4	37.2 to 40.6	37.1 to 40.8	728,363	730,652
97802 + 97803 (individual nutrition therapy)	2020	574,072	221,164	38.5	36.1 to 43.2	35.9 to 43.7	611,943	615,730
97802 + 97803 (individual nutrition therapy)	2021	684,733	300,305	43.9	41.7 to 47.3	41.5 to 47.7	720,784	724,389
97802 + 97803 (individual nutrition therapy)	2022	698,007	328,079	47.0	44.5 to 50.6	44.2 to 50.9	737,628	741,590
97802 + 97803 (individual nutrition therapy)	2023	677,680	307,048	45.3	42.9 to 48.9	42.7 to 49.2	715,691	719,492
97802 + 97803 (individual nutrition therapy)	2024	709,074	326,595	46.1	43.6 to 49.5	43.4 to 49.9	748,365	752,294
97802 + 97803 (individual nutrition therapy)	2025	731,448	347,674	47.5	45.1 to 50.8	44.9 to 51.1	770,759	774,690
G0270 + G0271	2010	13,483	1,713	12.7	11.4 to 28.0	11.3 to 29.3	15,053	15,210
G0270 + G0271	2011	17,415	2,050	11.8	10.8 to 22.1	10.7 to 23.0	18,925	19,076
G0270 + G0271	2012	24,696	2,226	9.0	8.4 to 17.7	8.4 to 18.5	26,476	26,654
G0270 + G0271	2013	34,634	3,561	10.3	9.6 to 18.1	9.6 to 18.8	36,994	37,230
G0270 + G0271	2014	37,071	4,028	10.9	10.4 to 16.3	10.3 to 16.8	38,791	38,963
G0270 + G0271	2015	57,238	8,013	14.0	13.5 to 18.0	13.5 to 18.4	59,318	59,526
G0270 + G0271	2016	64,096	10,043	15.7	15.1 to 19.4	15.1 to 19.8	66,426	66,659
G0270 + G0271	2017	63,453	6,593	10.4	10.1 to 14.3	10.0 to 14.7	65,573	65,785
G0270 + G0271	2018	70,860	8,323	11.7	11.4 to 15.3	11.3 to 15.6	73,120	73,346
G0270 + G0271	2019	89,827	9,273	10.3	10.1 to 13.4	10.0 to 13.7	92,227	92,467
G0270 + G0271	2020	98,861	19,410	19.6	19.0 to 23.5	19.0 to 23.9	102,031	102,348
G0270 + G0271	2021	93,784	16,659	17.8	17.2 to 21.9	17.1 to 22.3	96,874	97,183
G0270 + G0271	2022	72,109	7,607	10.5	10.1 to 16.7	10.0 to 17.3	75,370	75,696
G0270 + G0271	2023	66,674	7,129	10.7	10.3 to 16.5	10.3 to 17.0	69,224	69,479
G0270 + G0271	2024	86,827	7,518	8.7	8.4 to 13.8	8.4 to 14.2	89,568	89,842
G0270 + G0271	2025	98,541	9,866	10.0	9.7 to 14.6	9.7 to 15.1	101,371	101,654
Five nutrition therapy codes	2010	476,948	143,175	30.0	28.4 to 34.8	28.3 to 35.3	503,929	506,627
Five nutrition therapy codes	2011	521,322	157,028	30.1	29.0 to 33.4	28.9 to 33.7	541,922	543,982
Five nutrition therapy codes	2012	582,249	190,633	32.7	31.5 to 35.9	31.4 to 36.2	605,630	607,968
Five nutrition therapy codes	2013	625,895	203,820	32.6	31.2 to 35.8	31.1 to 36.1	652,436	655,090
Five nutrition therapy codes	2014	698,167	265,960	38.1	36.9 to 40.4	36.8 to 40.6	720,798	723,061
Five nutrition therapy codes	2015	724,192	263,697	36.4	35.1 to 38.9	35.0 to 39.2	750,423	753,046

Series	Year	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Submitted services, at most (cap 10)	Submitted services, at most (cap 11)
Five nutrition therapy codes	2016	742,722	269,481	36.3	35.0 to 38.8	34.9 to 39.1	769,523	772,203
Five nutrition therapy codes	2017	746,281	270,472	36.2	35.0 to 38.9	34.8 to 39.1	773,632	776,367
Five nutrition therapy codes	2018	774,946	288,062	37.2	35.9 to 39.6	35.8 to 39.9	801,657	804,328
Five nutrition therapy codes	2019	811,762	291,036	35.9	34.7 to 38.3	34.6 to 38.6	839,263	842,013
Five nutrition therapy codes	2020	680,201	245,669	36.1	33.9 to 41.0	33.7 to 41.4	724,112	728,503
Five nutrition therapy codes	2021	789,201	325,479	41.2	39.2 to 45.0	39.0 to 45.3	830,932	835,105
Five nutrition therapy codes	2022	782,943	346,265	44.2	41.8 to 48.2	41.6 to 48.5	828,324	832,862
Five nutrition therapy codes	2023	759,457	326,336	43.0	40.7 to 46.9	40.4 to 47.2	802,608	806,923
Five nutrition therapy codes	2024	812,477	348,152	42.9	40.6 to 46.7	40.4 to 47.1	857,748	862,275
Five nutrition therapy codes	2025	847,863	373,014	44.0	41.8 to 47.6	41.6 to 48.0	893,074	897,595
G0108 + G0109 (self-management training)	2010	350,447	111,547	31.8	30.7 to 35.7	30.6 to 36.1	363,547	364,857
G0108 + G0109 (self-management training)	2011	349,682	105,577	30.2	29.4 to 33.0	29.3 to 33.2	359,593	360,584
G0108 + G0109 (self-management training)	2012	338,951	98,722	29.1	28.3 to 32.3	28.2 to 32.6	349,311	350,347
G0108 + G0109 (self-management training)	2013	340,109	101,643	29.9	29.0 to 33.1	28.9 to 33.4	350,930	352,012
G0108 + G0109 (self-management training)	2014	336,488	111,632	33.2	32.2 to 35.9	32.1 to 36.2	346,468	347,466
G0108 + G0109 (self-management training)	2015	349,541	113,188	32.4	31.5 to 35.2	31.4 to 35.5	359,712	360,729
G0108 + G0109 (self-management training)	2016	344,534	95,793	27.8	26.9 to 31.0	26.9 to 31.3	355,475	356,569
G0108 + G0109 (self-management training)	2017	355,119	99,336	28.0	27.1 to 31.3	27.0 to 31.6	367,150	368,353
G0108 + G0109 (self-management training)	2018	362,326	104,522	28.8	27.9 to 32.1	27.8 to 32.4	374,636	375,867
G0108 + G0109 (self-management training)	2019	391,286	119,775	30.6	29.7 to 33.6	29.6 to 33.9	403,137	404,322
G0108 + G0109 (self-management training)	2020	238,840	60,015	25.1	23.1 to 33.6	22.9 to 34.4	260,151	262,282
G0108 + G0109 (self-management training)	2021	258,132	67,809	26.3	24.6 to 32.9	24.4 to 33.5	276,203	278,010
G0108 + G0109 (self-management training)	2022	273,927	84,858	31.0	29.0 to 37.1	28.9 to 37.6	292,298	294,135

Series	Year	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Submitted services, at most (cap 10)	Submitted services, at most (cap 11)
G0108 + G0109 (self-management training)	2023	288,699	108,020	37.4	35.3 to 42.2	35.1 to 42.7	306,270	308,027
G0108 + G0109 (self-management training)	2024	260,263	104,534	40.2	37.7 to 45.1	37.4 to 45.6	277,423	279,139
G0108 + G0109 (self-management training)	2025	248,767	99,686	40.1	37.3 to 45.6	37.1 to 46.1	267,087	268,919

Panel B. Differences in denial rates, percentage points.

Comparison	Year	Difference, published-cell estimator	Bounds, cap 10	Bounds, cap 11
97802 minus G0108	2010	-2.8	-10.6 to +3.3	-11.3 to +3.9
97802 minus G0108	2011	-5.3	-10.5 to -0.8	-11.0 to -0.4
97802 minus G0108	2012	-0.2	-6.2 to +4.4	-6.7 to +4.9
97802 minus G0108	2013	+0.5	-5.3 to +5.0	-5.9 to +5.4
97802 minus G0108	2014	+4.4	-0.5 to +8.0	-0.9 to +8.3
97802 minus G0108	2015	+6.4	+1.4 to +10.1	+0.9 to +10.4
97802 minus G0108	2016	+7.9	+2.5 to +11.7	+1.9 to +12.1
97802 minus G0108	2017	+7.8	+2.2 to +11.8	+1.7 to +12.1
97802 minus G0108	2018	+7.5	+2.1 to +11.4	+1.6 to +11.8
97802 minus G0108	2019	+7.3	+2.3 to +10.9	+1.8 to +11.2
97802 minus G0108	2020	+11.9	+0.5 to +19.3	-0.5 to +20.0
97802 minus G0108	2021	+14.5	+5.6 to +20.3	+4.8 to +20.8
97802 minus G0108	2022	+16.9	+8.0 to +22.5	+7.2 to +23.1
97802 minus G0108	2023	+3.2	-4.1 to +9.4	-4.7 to +10.0
97802 minus G0108	2024	-0.2	-7.5 to +6.6	-8.2 to +7.2
97802 minus G0108	2025	+1.4	-6.7 to +8.4	-7.5 to +9.1
97803 minus G0108	2010	+4.4	-4.0 to +10.7	-4.7 to +11.3
97803 minus G0108	2011	+2.5	-3.0 to +6.6	-3.5 to +7.0
97803 minus G0108	2012	+8.3	+2.3 to +12.0	+1.7 to +12.4
97803 minus G0108	2013	+5.7	-0.1 to +9.7	-0.7 to +10.1
97803 minus G0108	2014	+8.2	+3.2 to +11.5	+2.7 to +11.8
97803 minus G0108	2015	+10.5	+5.4 to +13.7	+4.9 to +14.0
97803 minus G0108	2016	+12.2	+6.9 to +15.5	+6.3 to +15.8
97803 minus G0108	2017	+11.1	+5.7 to +14.6	+5.2 to +14.9
97803 minus G0108	2018	+11.6	+6.4 to +14.8	+5.9 to +15.1
97803 minus G0108	2019	+9.1	+4.3 to +12.4	+3.8 to +12.7
97803 minus G0108	2020	+14.1	+2.8 to +20.7	+1.8 to +21.3
97803 minus G0108	2021	+20.5	+11.7 to +25.4	+10.9 to +25.8
97803 minus G0108	2022	+16.9	+8.1 to +22.5	+7.2 to +23.1
97803 minus G0108	2023	+10.2	+2.8 to +15.9	+2.1 to +16.4
97803 minus G0108	2024	+7.1	-0.5 to +13.1	-1.2 to +13.7
97803 minus G0108	2025	+8.9	+0.8 to +15.0	+0.1 to +15.5
97802 + 97803 minus G0108	2010	+0.2	-7.8 to +6.4	-8.5 to +7.0
97802 + 97803 minus G0108	2011	-1.8	-7.2 to +2.5	-7.7 to +2.9
97802 + 97803 minus G0108	2012	+3.8	-2.2 to +8.1	-2.7 to +8.5
97802 + 97803 minus G0108	2013	+2.9	-2.9 to +7.2	-3.5 to +7.6

Comparison	Year	Difference, published-cell estimator	Bounds, cap 10	Bounds, cap 11
97802 + 97803 minus G0108	2014	+6.2	+1.3 to +9.6	+0.8 to +9.9
97802 + 97803 minus G0108	2015	+8.3	+3.3 to +11.8	+2.8 to +12.1
97802 + 97803 minus G0108	2016	+10.0	+4.6 to +13.5	+4.1 to +13.9
97802 + 97803 minus G0108	2017	+9.4	+3.9 to +13.1	+3.4 to +13.5
97802 + 97803 minus G0108	2018	+9.6	+4.2 to +13.1	+3.7 to +13.4
97802 + 97803 minus G0108	2019	+8.2	+3.3 to +11.6	+2.8 to +12.0
97802 + 97803 minus G0108	2020	+13.0	+1.7 to +20.1	+0.7 to +20.7
97802 + 97803 minus G0108	2021	+17.7	+8.8 to +22.9	+7.9 to +23.4
97802 + 97803 minus G0108	2022	+16.9	+8.1 to +22.5	+7.2 to +23.1
97802 + 97803 minus G0108	2023	+6.8	-0.6 to +12.7	-1.3 to +13.3
97802 + 97803 minus G0108	2024	+3.6	-3.9 to +10.0	-4.6 to +10.6
97802 + 97803 minus G0108	2025	+5.3	-2.8 to +11.9	-3.5 to +12.5
97804 minus G0109	2010	+18.4	+8.9 to +29.8	+8.1 to +30.7
97804 minus G0109	2011	+23.5	+16.0 to +31.7	+15.3 to +32.4
97804 minus G0109	2012	+24.6	+16.3 to +33.0	+15.6 to +33.7
97804 minus G0109	2013	+34.7	+23.3 to +42.1	+22.4 to +42.7
97804 minus G0109	2014	+30.8	+22.9 to +35.7	+22.2 to +36.2
97804 minus G0109	2015	+29.1	+19.3 to +34.9	+18.4 to +35.4
97804 minus G0109	2016	+35.3	+25.8 to +41.2	+25.0 to +41.8
97804 minus G0109	2017	+38.3	+28.7 to +44.2	+27.8 to +44.7
97804 minus G0109	2018	+37.9	+28.6 to +43.9	+27.8 to +44.4
97804 minus G0109	2019	+34.8	+25.3 to +40.6	+24.4 to +41.2
97804 minus G0109	2020	+46.3	+19.7 to +59.0	+17.7 to +59.9
97804 minus G0109	2021	+53.1	+31.3 to +60.5	+29.4 to +61.1
97804 minus G0109	2022	+47.9	+29.4 to +53.5	+27.9 to +54.0
97804 minus G0109	2023	+46.9	+30.9 to +52.7	+29.5 to +53.2
97804 minus G0109	2024	+51.8	+33.5 to +56.7	+32.0 to +57.1
97804 minus G0109	2025	+53.6	+36.3 to +57.9	+34.8 to +58.3
Group gap minus (97802 minus G0108)	2010	+21.2	+5.6 to +40.4	+4.2 to +42.0
Group gap minus (97802 minus G0108)	2011	+28.8	+16.8 to +42.2	+15.7 to +43.4
Group gap minus (97802 minus G0108)	2012	+24.9	+11.9 to +39.2	+10.7 to +40.5
Group gap minus (97802 minus G0108)	2013	+34.3	+18.3 to +47.4	+16.9 to +48.6
Group gap minus (97802 minus G0108)	2014	+26.3	+14.9 to +36.2	+13.9 to +37.1
Group gap minus (97802 minus G0108)	2015	+22.7	+9.2 to +33.6	+8.0 to +34.6
Group gap minus (97802 minus G0108)	2016	+27.4	+14.1 to +38.8	+12.9 to +39.8
Group gap minus (97802 minus G0108)	2017	+30.5	+17.0 to +41.9	+15.7 to +43.0
Group gap minus (97802 minus G0108)	2018	+30.4	+17.2 to +41.8	+16.0 to +42.8
Group gap minus (97802 minus G0108)	2019	+27.6	+14.4 to +38.4	+13.2 to +39.4
Group gap minus (97802 minus G0108)	2020	+34.4	+0.4 to +58.5	-2.3 to +60.5

Comparison	Year	Difference, published-cell estimator	Bounds, cap 10	Bounds, cap 11
Group gap minus (97802 minus G0108)	2021	+38.6	+11.0 to +54.8	+8.6 to +56.3
Group gap minus (97802 minus G0108)	2022	+31.0	+6.9 to +45.5	+4.8 to +46.8
Group gap minus (97802 minus G0108)	2023	+43.7	+21.4 to +56.7	+19.5 to +57.9
Group gap minus (97802 minus G0108)	2024	+52.0	+26.9 to +64.2	+24.7 to +65.3
Group gap minus (97802 minus G0108)	2025	+52.2	+27.8 to +64.7	+25.7 to +65.8
Group gap minus (97803 minus G0108)	2010	+14.0	-1.8 to +33.7	-3.3 to +35.5
Group gap minus (97803 minus G0108)	2011	+21.0	+9.4 to +34.7	+8.3 to +35.9
Group gap minus (97803 minus G0108)	2012	+16.4	+4.3 to +30.7	+3.2 to +32.0
Group gap minus (97803 minus G0108)	2013	+29.0	+13.6 to +42.2	+12.3 to +43.4
Group gap minus (97803 minus G0108)	2014	+22.6	+11.4 to +32.5	+10.4 to +33.5
Group gap minus (97803 minus G0108)	2015	+18.7	+5.6 to +29.5	+4.4 to +30.5
Group gap minus (97803 minus G0108)	2016	+23.0	+10.4 to +34.4	+9.2 to +35.4
Group gap minus (97803 minus G0108)	2017	+27.2	+14.1 to +38.5	+13.0 to +39.5
Group gap minus (97803 minus G0108)	2018	+26.3	+13.9 to +37.5	+12.7 to +38.5
Group gap minus (97803 minus G0108)	2019	+25.7	+12.9 to +36.4	+11.7 to +37.4
Group gap minus (97803 minus G0108)	2020	+32.2	-1.0 to +56.2	-3.6 to +58.1
Group gap minus (97803 minus G0108)	2021	+32.6	+5.9 to +48.8	+3.6 to +50.2
Group gap minus (97803 minus G0108)	2022	+31.0	+6.9 to +45.5	+4.8 to +46.8
Group gap minus (97803 minus G0108)	2023	+36.6	+15.0 to +49.9	+13.1 to +51.1
Group gap minus (97803 minus G0108)	2024	+44.8	+20.4 to +57.2	+18.3 to +58.4
Group gap minus (97803 minus G0108)	2025	+44.7	+21.3 to +57.1	+19.2 to +58.2
Group gap minus (97802 + 97803 minus G0108)	2010	+18.2	+2.5 to +37.6	+1.1 to +39.3
Group gap minus (97802 + 97803 minus G0108)	2011	+25.4	+13.5 to +38.8	+12.4 to +40.1
Group gap minus (97802 + 97803 minus G0108)	2012	+20.8	+8.3 to +35.2	+7.1 to +36.4
Group gap minus (97802 + 97803 minus G0108)	2013	+31.8	+16.1 to +45.0	+14.7 to +46.2
Group gap minus (97802 + 97803 minus G0108)	2014	+24.6	+13.3 to +34.5	+12.2 to +35.4
Group gap minus (97802 + 97803 minus G0108)	2015	+20.8	+7.5 to +31.6	+6.3 to +32.6
Group gap minus (97802 + 97803 minus G0108)	2016	+25.3	+12.3 to +36.6	+11.1 to +37.7
Group gap minus (97802 + 97803 minus G0108)	2017	+28.9	+15.6 to +40.3	+14.4 to +41.3

Comparison	Year	Difference, published-cell estimator	Bounds, cap 10	Bounds, cap 11
Group gap minus (97802 + 97803 minus G0108)	2018	+28.3	+15.6 to +39.6	+14.4 to +40.7
Group gap minus (97802 + 97803 minus G0108)	2019	+26.6	+13.6 to +37.4	+12.4 to +38.4
Group gap minus (97802 + 97803 minus G0108)	2020	+33.2	-0.3 to +57.3	-3.0 to +59.3
Group gap minus (97802 + 97803 minus G0108)	2021	+35.5	+8.3 to +51.7	+6.0 to +53.1
Group gap minus (97802 + 97803 minus G0108)	2022	+31.0	+6.9 to +45.5	+4.8 to +46.8
Group gap minus (97802 + 97803 minus G0108)	2023	+40.1	+18.1 to +53.3	+16.2 to +54.4
Group gap minus (97802 + 97803 minus G0108)	2024	+48.2	+23.5 to +60.6	+21.4 to +61.7
Group gap minus (97802 + 97803 minus G0108)	2025	+48.3	+24.4 to +60.7	+22.3 to +61.8

Notes: The published-cell estimator does not depend on the cap. A cap of 11 is shown because published counts include fractional values and the smallest published value is 11.0, so a value between 10 and 11 cannot be ruled out. In Panel B the bounds on a difference are the lowest and highest differences consistent with the unpublished cells of every code involved, taken together; no row carries more than one code, so they equal the lower bound of each code added with a positive sign less the upper bound of each code subtracted, and the reverse. The file records no reason for denial.

Table D. Denial rate of group nutrition therapy (97804) less that of group diabetes self-management training (G0109), by year and for the change to 2025, for all billers and four subsets, with exact bounds at a suppression cap of 10 and of 11, calendar years 2010 to 2025, fee-for-service Part B carrier claims. Units: percentage points. Basis: rates are the published-cell estimator; dietitian-billed means provider specialty code 71; services not coded as telehealth carry neither place of service 02 or 10 nor modifier 95 or GT in either modifier position; carrier 01112 is excluded from both codes where stated. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026.

Panel A. Gap by year.

Group	Year	97804 minus G0109, published-cell estimator	Bounds, cap 10	Bounds, cap 11
All billers	2010	18.4	8.9 to 29.8	8.1 to 30.7
All billers	2011	23.5	16.0 to 31.7	15.3 to 32.4
All billers	2012	24.6	16.3 to 33.0	15.6 to 33.7
All billers	2013	34.7	23.3 to 42.1	22.4 to 42.7
All billers	2014	30.8	22.9 to 35.7	22.2 to 36.2
All billers	2015	29.1	19.3 to 34.9	18.4 to 35.4
All billers	2016	35.3	25.8 to 41.2	25.0 to 41.8
All billers	2017	38.3	28.7 to 44.2	27.8 to 44.7
All billers	2018	37.9	28.6 to 43.9	27.8 to 44.4
All billers	2019	34.8	25.3 to 40.6	24.4 to 41.2
All billers	2020	46.3	19.7 to 59.0	17.7 to 59.9
All billers	2021	53.1	31.3 to 60.5	29.4 to 61.1
All billers	2022	47.9	29.4 to 53.5	27.9 to 54.0
All billers	2023	46.9	30.9 to 52.7	29.5 to 53.2
All billers	2024	51.8	33.5 to 56.7	32.0 to 57.1
All billers	2025	53.6	36.3 to 57.9	34.8 to 58.3
Dietitian-billed (specialty 71)	2010	8.4	3.9 to 18.3	3.5 to 19.2
Dietitian-billed (specialty 71)	2011	15.1	11.9 to 21.2	11.6 to 21.8
Dietitian-billed (specialty 71)	2012	18.3	14.8 to 24.3	14.5 to 24.9
Dietitian-billed (specialty 71)	2013	24.3	18.8 to 31.7	18.3 to 32.4
Dietitian-billed (specialty 71)	2014	16.3	13.0 to 20.5	12.6 to 20.9
Dietitian-billed (specialty 71)	2015	22.7	18.3 to 27.1	17.8 to 27.5

Group	Year	97804 minus G0109, published-cell estimator	Bounds, cap 10	Bounds, cap 11
Dietitian-billed (specialty 71)	2016	28.3	24.1 to 32.3	23.7 to 32.7
Dietitian-billed (specialty 71)	2017	31.6	26.7 to 36.2	26.2 to 36.6
Dietitian-billed (specialty 71)	2018	36.3	31.5 to 40.8	31.0 to 41.2
Dietitian-billed (specialty 71)	2019	36.7	31.7 to 40.7	31.3 to 41.1
Dietitian-billed (specialty 71)	2020	37.1	17.9 to 52.2	16.4 to 53.3
Dietitian-billed (specialty 71)	2021	47.9	31.9 to 55.0	30.5 to 55.6
Dietitian-billed (specialty 71)	2022	44.1	30.5 to 49.0	29.3 to 49.5
Dietitian-billed (specialty 71)	2023	45.7	35.0 to 50.4	34.1 to 50.8
Dietitian-billed (specialty 71)	2024	55.3	42.3 to 59.0	41.1 to 59.3
Dietitian-billed (specialty 71)	2025	56.4	44.3 to 59.7	43.2 to 60.0
Dietitian-billed, excluding carrier 01112	2010	8.4	3.9 to 18.3	3.5 to 19.2
Dietitian-billed, excluding carrier 01112	2011	15.1	11.9 to 21.2	11.6 to 21.8
Dietitian-billed, excluding carrier 01112	2012	18.3	14.8 to 24.3	14.5 to 24.9
Dietitian-billed, excluding carrier 01112	2013	23.5	18.5 to 30.6	18.1 to 31.2
Dietitian-billed, excluding carrier 01112	2014	13.4	10.2 to 17.4	9.9 to 17.8
Dietitian-billed, excluding carrier 01112	2015	22.0	17.7 to 26.0	17.3 to 26.4
Dietitian-billed, excluding carrier 01112	2016	27.8	23.6 to 31.6	23.2 to 31.9
Dietitian-billed, excluding carrier 01112	2017	30.8	26.1 to 34.8	25.6 to 35.2
Dietitian-billed, excluding carrier 01112	2018	35.5	30.9 to 39.6	30.5 to 39.9
Dietitian-billed, excluding carrier 01112	2019	34.5	30.0 to 38.2	29.6 to 38.5
Dietitian-billed, excluding carrier 01112	2020	35.4	16.3 to 50.5	14.8 to 51.6
Dietitian-billed, excluding carrier 01112	2021	39.8	23.1 to 49.3	21.7 to 50.1
Dietitian-billed, excluding carrier 01112	2022	34.0	18.3 to 41.8	17.0 to 42.4
Dietitian-billed, excluding carrier 01112	2023	34.4	21.9 to 42.8	20.8 to 43.5
Dietitian-billed, excluding carrier 01112	2024	40.5	23.0 to 49.7	21.6 to 50.4
Dietitian-billed, excluding carrier 01112	2025	40.8	23.7 to 49.1	22.3 to 49.8
Excluding carrier 01112 (both codes)	2010	18.4	8.9 to 29.8	8.1 to 30.7
Excluding carrier 01112 (both codes)	2011	23.5	16.0 to 31.7	15.3 to 32.4
Excluding carrier 01112 (both codes)	2012	24.6	16.3 to 33.0	15.6 to 33.7
Excluding carrier 01112 (both codes)	2013	33.5	22.5 to 40.9	21.6 to 41.5
Excluding carrier 01112 (both codes)	2014	29.0	21.2 to 33.9	20.5 to 34.4
Excluding carrier 01112 (both codes)	2015	28.6	19.0 to 34.2	18.1 to 34.6
Excluding carrier 01112 (both codes)	2016	35.6	26.4 to 41.1	25.5 to 41.6

Group	Year	97804 minus G0109, published-cell estimator	Bounds, cap 10	Bounds, cap 11
Excluding carrier 01112 (both codes)	2017	38.4	29.0 to 43.7	28.2 to 44.1
Excluding carrier 01112 (both codes)	2018	37.5	28.4 to 43.2	27.6 to 43.7
Excluding carrier 01112 (both codes)	2019	33.4	24.4 to 38.9	23.5 to 39.4
Excluding carrier 01112 (both codes)	2020	45.6	19.1 to 58.1	17.1 to 59.0
Excluding carrier 01112 (both codes)	2021	47.9	25.0 to 56.9	23.1 to 57.7
Excluding carrier 01112 (both codes)	2022	40.4	19.4 to 48.4	17.7 to 49.1
Excluding carrier 01112 (both codes)	2023	36.7	18.2 to 46.5	16.7 to 47.3
Excluding carrier 01112 (both codes)	2024	38.5	14.9 to 49.2	13.1 to 50.0
Excluding carrier 01112 (both codes)	2025	40.1	16.7 to 49.9	14.9 to 50.7
Services not coded as telehealth	2010	18.4	8.9 to 29.8	8.1 to 30.7
Services not coded as telehealth	2011	23.5	16.0 to 31.7	15.3 to 32.4
Services not coded as telehealth	2012	24.6	16.3 to 33.0	15.6 to 33.7
Services not coded as telehealth	2013	34.7	23.3 to 42.1	22.4 to 42.7
Services not coded as telehealth	2014	30.8	22.9 to 35.7	22.2 to 36.2
Services not coded as telehealth	2015	29.1	19.3 to 34.9	18.4 to 35.4
Services not coded as telehealth	2016	35.3	25.9 to 41.2	25.0 to 41.7
Services not coded as telehealth	2017	38.3	28.7 to 44.2	27.9 to 44.7
Services not coded as telehealth	2018	37.9	28.7 to 43.8	27.9 to 44.4
Services not coded as telehealth	2019	34.8	25.3 to 40.6	24.4 to 41.2
Services not coded as telehealth	2020	45.5	23.7 to 56.8	22.0 to 57.7
Services not coded as telehealth	2021	48.7	28.0 to 57.0	26.4 to 57.6
Services not coded as telehealth	2022	39.6	21.8 to 46.9	20.3 to 47.5
Services not coded as telehealth	2023	33.9	18.9 to 43.3	17.7 to 44.1
Services not coded as telehealth	2024	36.4	20.3 to 45.6	19.0 to 46.4
Services not coded as telehealth	2025	35.2	16.4 to 44.7	14.9 to 45.4

Panel B. Change in the gap.

Group	Change	Published-cell estimator	Bounds, cap 10	Bounds, cap 11	Established on the bounds at both caps
All billers	2010 to 2025	+35.2	+6.5 to +49.0	+4.0 to +50.2	Yes, a widening
All billers	2019 to 2025	+18.8	-4.4 to +32.7	-6.4 to +33.9	No, the bounds include zero
Dietitian-billed (specialty 71)	2010 to 2025	+48.1	+26.0 to +55.8	+24.0 to +56.5	Yes, a widening
Dietitian-billed (specialty 71)	2019 to 2025	+19.8	+3.6 to +28.0	+2.1 to +28.7	Yes, a widening
Dietitian-billed, excluding carrier 01112	2010 to 2025	+32.4	+5.4 to +45.2	+3.1 to +46.3	Yes, a widening
Dietitian-billed, excluding carrier 01112	2019 to 2025	+6.3	-14.5 to +19.1	-16.2 to +20.2	No, the bounds include zero
Excluding carrier 01112 (both codes)	2010 to 2025	+21.7	-13.1 to +41.0	-15.8 to +42.6	No, the bounds include zero
Excluding carrier 01112 (both codes)	2019 to 2025	+6.7	-22.2 to +25.5	-24.5 to +27.1	No, the bounds include zero
Services not coded as telehealth	2010 to 2025	+16.8	-13.4 to +35.8	-15.9 to +37.4	No, the bounds include zero

Group	Change	Published-cell estimator	Bounds, cap 10	Bounds, cap 11	Established on the bounds at both caps
Services not coded as telehealth	2019 to 2025	+0.4	-24.3 to +19.4	-26.3 to +21.0	No, the bounds include zero

Notes: The bounds on a gap run from the lowest 97804 rate less the highest G0109 rate to the highest 97804 rate less the lowest G0109 rate, which is exact because no row carries both codes. The bounds on a change run from the lowest gap in the later year less the highest gap in the earlier year, and the reverse: each annual file covers one calendar year, so an unpublished count in one year is not constrained by any count in another, and each year's unpublished cells take their full range. A change is established on the bounds only where its lower bound is above zero. These are descriptive comparisons, not tests, and the file records no reason for denial.

Table E. Services on claim lines carrying a physician specialty code, for 97802, 97803 and 97804 separately and pooled, calendar years 2010 to 2025, fee-for-service Part B carrier claims. Units: rows of the procedure summary, services, percent, and nominal United States dollars. Basis: the 66 physician specialty codes listed in Appendix B, drawn from the Medicare Claims Processing Manual, Pub. 100-04, chapter 26, section 10.8.2; a specialty code is the code used to price the line, not the credential of the practitioner who furnished the service. Medicare paid is published in every row and is nominal, not deflated. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026.

Code or pooled	Year	Rows with a physician specialty code	Rows, all specialty codes	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Share of the codes' published submitted services	Share, bounds (cap 10)	Medicare paid (nominal)	Share of Medicare paid for the codes
97802, 97803 and 97804	2010	2,038	4,525	34,148	30,661	89.8	63.9 to 94.0	62.1 to 94.3	7.4	7.2 to 10.1	$70,444	1.21
97802, 97803 and 97804	2011	1,688	3,513	36,273	32,837	90.5	69.9 to 93.6	68.3 to 93.8	7.2	7.1 to 9.1	$97,156	1.09
97802, 97803 and 97804	2012	1,851	3,918	42,123	39,834	94.6	73.8 to 96.4	72.2 to 96.6	7.6	7.4 to 9.5	$68,608	0.69
97802, 97803 and 97804	2013	2,032	4,316	49,716	49,557	99.7	78.9 to 99.9	77.3 to 99.9	8.4	8.3 to 10.4	$7,309	0.07
97802, 97803 and 97804	2014	1,772	3,819	53,000	52,855	99.7	82.4 to 99.9	81.0 to 99.9	8.0	7.9 to 9.5	$7,048	0.06
97802, 97803 and 97804	2015	1,881	4,214	46,517	46,309	99.6	78.7 to 99.8	77.1 to 99.8	7.0	6.9 to 8.7	$8,329	0.07
97802, 97803 and 97804	2016	1,862	4,351	46,052	45,735	99.3	78.6 to 99.6	77.0 to 99.6	6.8	6.7 to 8.4	$13,223	0.12
97802, 97803 and 97804	2017	1,937	4,491	47,566	46,907	98.6	77.9 to 99.0	76.3 to 99.1	7.0	6.8 to 8.7	$22,864	0.20
97802, 97803 and 97804	2018	1,876	4,435	50,159	49,485	98.7	79.5 to 99.1	78.0 to 99.1	7.1	7.0 to 8.7	$21,813	0.19
97802, 97803 and 97804	2019	1,857	4,484	49,836	49,214	98.8	79.3 to 99.2	77.8 to 99.3	6.9	6.8 to 8.5	$20,972	0.16
97802, 97803 and 97804	2020	2,187	6,907	33,537	32,930	98.2	66.0 to 99.3	63.9 to 99.4	5.8	5.5 to 8.3	$22,536	0.21
97802, 97803 and 97804	2021	2,224	6,897	50,571	49,832	98.5	75.6 to 99.2	73.9 to 99.2	7.3	7.0 to 9.3	$28,640	0.25
97802, 97803 and 97804	2022	2,143	7,286	39,691	38,843	97.9	70.3 to 98.7	68.4 to 98.8	5.6	5.4 to 7.6	$32,047	0.29
97802, 97803 and 97804	2023	1,982	7,123	33,070	32,649	98.7	68.8 to 99.4	66.8 to 99.4	4.8	4.6 to 6.7	$17,223	0.16

Code or pooled	Year	Rows with a physician specialty code	Rows, all specialty codes	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Share of the codes' published submitted services	Share, bounds (cap 10)	Medicare paid (nominal)	Share of Medicare paid for the codes
97802, 97803 and 97804	2024	1,982	7,481	33,635	33,396	99.3	69.3 to 99.7	67.3 to 99.7	4.6	4.5 to 6.5	$10,767	0.10
97802, 97803 and 97804	2025	1,974	7,555	34,585	34,376	99.4	69.7 to 99.7	67.7 to 99.7	4.6	4.5 to 6.5	$8,336	0.08
97802	2010	1,084	2,292	20,840	18,541	89.0	66.5 to 92.9	64.8 to 93.2	8.0	7.8 to 10.4	$49,592	1.36
97802	2011	919	1,819	22,096	19,722	89.3	71.1 to 92.2	69.6 to 92.4	8.1	8.0 to 9.9	$70,935	1.31
97802	2012	1,028	2,035	26,288	24,635	93.7	75.0 to 95.7	73.5 to 95.8	9.3	9.1 to 11.3	$51,751	0.90
97802	2013	1,114	2,206	29,967	29,846	99.6	80.7 to 99.9	79.2 to 99.9	9.8	9.6 to 11.8	$4,782	0.08
97802	2014	950	1,886	32,908	32,791	99.6	84.3 to 99.8	83.0 to 99.8	9.6	9.5 to 11.1	$5,397	0.08
97802	2015	1,003	2,152	28,935	28,830	99.6	82.0 to 99.8	80.6 to 99.8	8.5	8.4 to 10.2	$4,935	0.08
97802	2016	1,033	2,215	27,333	27,131	99.3	79.8 to 99.5	78.3 to 99.5	8.1	7.9 to 9.8	$8,532	0.13
97802	2017	1,074	2,306	27,533	27,010	98.1	78.4 to 98.7	76.8 to 98.7	8.1	8.0 to 10.0	$17,819	0.28
97802	2018	1,054	2,286	31,064	30,646	98.7	81.0 to 99.1	79.6 to 99.1	9.0	8.9 to 10.8	$14,254	0.22
97802	2019	1,012	2,240	31,140	30,754	98.8	81.6 to 99.2	80.2 to 99.2	8.7	8.6 to 10.4	$14,015	0.20
97802	2020	1,206	3,336	21,463	21,057	98.1	69.4 to 99.2	67.5 to 99.3	7.8	7.5 to 10.6	$14,649	0.26
97802	2021	1,214	3,381	25,999	25,595	98.4	74.6 to 99.1	72.8 to 99.1	7.9	7.6 to 10.2	$16,975	0.27
97802	2022	1,167	3,503	26,387	25,844	97.9	74.4 to 98.7	72.6 to 98.8	7.4	7.1 to 9.5	$21,174	0.35
97802	2023	1,067	3,357	21,318	21,032	98.7	72.5 to 99.3	70.7 to 99.3	6.4	6.2 to 8.5	$12,347	0.21
97802	2024	1,053	3,507	20,566	20,417	99.3	72.3 to 99.6	70.4 to 99.6	6.0	5.8 to 8.1	$6,976	0.12
97802	2025	1,073	3,600	20,902	20,802	99.5	72.3 to 99.8	70.3 to 99.8	6.0	5.8 to 8.1	$4,814	0.08
97803	2010	804	1,849	10,702	9,889	92.4	60.1 to 96.4	58.1 to 96.6	5.6	5.5 to 8.4	$17,053	0.81
97803	2011	639	1,386	12,080	11,237	93.0	69.2 to 95.9	67.4 to 96.1	5.5	5.5 to 7.3	$23,315	0.68
97803	2012	677	1,513	13,575	13,134	96.8	73.4 to 98.1	71.7 to 98.2	5.2	5.1 to 6.8	$14,077	0.34
97803	2013	762	1,716	15,433	15,395	99.8	75.8 to 99.9	74.0 to 99.9	5.7	5.6 to 7.4	$2,527	0.06
97803	2014	681	1,585	15,651	15,623	99.8	78.5 to 100.0	76.9 to 100.0	5.2	5.1 to 6.5	$1,455	0.03
97803	2015	735	1,696	14,785	14,686	99.3	74.3 to 99.7	72.4 to 99.7	4.7	4.7 to 6.2	$3,319	0.07
97803	2016	692	1,758	17,138	17,025	99.3	79.0 to 99.6	77.4 to 99.6	5.3	5.2 to 6.6	$4,473	0.09
97803	2017	738	1,807	18,112	17,988	99.3	78.1 to 99.5	76.5 to 99.5	5.5	5.4 to 6.9	$4,830	0.10
97803	2018	693	1,766	17,729	17,485	98.6	78.9 to 99.1	77.3 to 99.1	5.2	5.1 to 6.4	$7,299	0.14
97803	2019	728	1,872	17,535	17,299	98.7	77.6 to 99.3	76.0 to 99.4	5.0	5.0 to 6.3	$6,775	0.12
97803	2020	879	3,146	10,827	10,628	98.2	60.7 to 99.4	58.5 to 99.4	3.6	3.5 to 5.7	$7,839	0.15
97803	2021	913	3,109	23,079	22,750	98.6	77.3 to 99.3	75.7 to 99.3	6.5	6.3 to 8.1	$11,375	0.21
97803	2022	903	3,375	12,186	11,881	97.5	63.0 to 98.6	60.8 to 98.7	3.6	3.4 to 5.4	$10,839	0.22
97803	2023	841	3,352	11,107	10,972	98.8	63.8 to 99.5	61.7 to 99.6	3.2	3.1 to 4.9	$4,875	0.10
97803	2024	847	3,494	12,679	12,589	99.3	66.8 to 99.7	64.6 to 99.8	3.5	3.3 to 5.0	$3,759	0.08
97803	2025	811	3,487	13,190	13,081	99.2	68.3 to 99.6	66.2 to 99.6	3.4	3.3 to 4.9	$3,460	0.07
97804	2010	150	384	2,606	2,231	85.6	61.2 to 91.1	59.5 to 91.5	21.6	19.9 to 27.8	$3,799	7.71
97804	2011	130	308	2,097	1,878	89.6	63.3 to 94.0	61.5 to 94.3	16.7	15.7 to 22.1	$2,906	4.09
97804	2012	146	370	2,260	2,065	91.4	64.1 to 94.9	62.3 to 95.1	16.3	15.2 to 21.8	$2,781	3.45
97804	2013	156	394	4,316	4,316	100.0	78.2 to 100.0	76.6 to 100.0	30.7	28.1 to 36.1	$0	0.00
97804	2014	141	348	4,441	4,441	100.0	82.8 to 100.0	81.4 to 100.0	26.2	24.9 to 30.0	$197	0.24
97804	2015	143	366	2,797	2,793	99.9	71.9 to 99.9	69.9 to 99.9	17.9	16.7 to 23.2	$75	0.10
97804	2016	137	378	1,580	1,578	99.9	60.2 to 99.9	57.9 to 99.9	9.9	9.3 to 15.4	$218	0.28

Code or pooled	Year	Rows with a physician specialty code	Rows, all specialty codes	Submitted services, at least	Denied services, at least	Denial rate, published-cell estimator	Bounds, cap 10	Bounds, cap 11	Share of the codes' published submitted services	Share, bounds (cap 10)	Medicare paid (nominal)	Share of Medicare paid for the codes
97804	2017	125	378	1,920	1,908	99.4	69.4 to 99.9	67.3 to 100.0	12.2	11.3 to 16.5	$215	0.30
97804	2018	129	383	1,366	1,354	99.1	59.8 to 99.9	57.5 to 100.0	8.1	7.6 to 12.8	$259	0.33
97804	2019	117	372	1,161	1,161	100.0	55.8 to 100.0	53.4 to 100.0	7.1	6.5 to 12.0	$181	0.23
97804	2020	102	425	1,247	1,245	99.8	60.8 to 99.9	58.5 to 99.9	17.2	13.4 to 25.4	$48	0.15
97804	2021	97	407	1,493	1,487	99.6	68.1 to 99.7	66.0 to 99.7	14.0	11.9 to 19.2	$291	0.90
97804	2022	73	408	1,118	1,118	100.0	68.3 to 100.0	66.2 to 100.0	8.7	7.6 to 12.3	$33	0.10
97804	2023	74	414	645	645	100.0	51.0 to 100.0	48.6 to 100.0	4.3	3.8 to 8.0	$0	0.00
97804	2024	82	480	390	390	100.0	35.1 to 100.0	33.0 to 100.0	2.4	2.0 to 6.4	$31	0.09
97804	2025	90	468	493	493	100.0	36.7 to 100.0	34.5 to 100.0	2.8	2.5 to 7.2	$62	0.19

Notes: A row is one combination of code, carrier number, pricing locality, specialty code, type and place of service and modifiers, so a count of rows measures how widely billing is spread across cells, not volume. The file does not identify who furnished a service or why a line carries a particular specialty code; group billing, reassignment and miscoding are all consistent with these rows. The file records no reason for denial. Whether most physician-coded services were denied is established on the bounds for 97802 and 97803 in every year and for the pooled series in every year, and is left open for 97804 in 2024 and 2025 at a cap of 10 and in 2023 to 2025 at a cap of 11.

Table F. Share of published denied services carrying modifier GA, GX, GY or GZ in either modifier position, by code and year, and the group-code gap with those rows excluded, calendar years 2010 to 2025, fee-for-service Part B carrier claims. Units: services and percent of published denied services; the gap in percentage points. Basis: the denominator is published denied services for the same code and year, so the share is a share of published cells while the bounds are a share of all denied services. Modifiers are row keys and are not suppressed, so a row's classification is exact. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026.

Panel A. Share of published denied services carrying a liability modifier.

Code	Year	Published denied services, at least	Share carrying GA, GX, GY or GZ	Bounds, cap 10	Bounds, cap 11
97802	2010	70,333	20.2	17.3 to 23.4	17.0 to 23.7
97802	2011	73,184	18.5	16.5 to 20.8	16.3 to 21.1
97802	2012	83,043	17.9	16.0 to 20.4	15.8 to 20.6
97802	2013	93,933	17.9	16.0 to 20.1	15.8 to 20.3
97802	2014	128,013	14.1	13.1 to 15.5	13.1 to 15.7
97802	2015	121,531	16.6	15.3 to 18.3	15.1 to 18.5
97802	2016	120,407	21.3	19.6 to 23.2	19.4 to 23.4
97802	2017	123,337	22.3	20.5 to 24.3	20.4 to 24.5
97802	2018	127,595	22.5	20.8 to 24.5	20.6 to 24.7
97802	2019	133,967	24.0	22.2 to 25.8	22.1 to 25.9
97802	2020	103,408	21.2	18.2 to 25.2	18.0 to 25.6
97802	2021	134,209	21.6	19.3 to 24.7	19.1 to 25.0
97802	2022	167,976	17.8	16.1 to 20.5	16.0 to 20.8
97802	2023	138,407	23.0	20.7 to 26.1	20.5 to 26.4
97802	2024	144,602	25.1	22.6 to 28.3	22.4 to 28.5
97802	2025	151,287	26.7	24.1 to 29.7	23.9 to 30.0
97803	2010	64,878	16.9	14.7 to 20.2	14.5 to 20.5
97803	2011	75,254	17.5	16.1 to 19.4	16.0 to 19.6
97803	2012	97,967	16.4	15.3 to 18.1	15.2 to 18.3
97803	2013	97,272	17.8	16.4 to 19.9	16.3 to 20.1

Code	Year	Published denied services, at least	Share carrying GA, GX, GY or GZ	Bounds, cap 10	Bounds, cap 11
97803	2014	123,015	18.4	17.4 to 19.7	17.3 to 19.9
97803	2015	123,981	20.0	18.8 to 21.6	18.7 to 21.8
97803	2016	128,917	23.5	22.1 to 24.9	21.9 to 25.1
97803	2017	130,202	26.2	24.6 to 27.7	24.4 to 27.8
97803	2018	141,083	25.8	24.4 to 27.1	24.3 to 27.2
97803	2019	136,918	28.4	26.7 to 29.8	26.6 to 29.9
97803	2020	117,756	28.6	25.4 to 32.0	25.1 to 32.3
97803	2021	166,095	25.6	23.6 to 27.9	23.5 to 28.2
97803	2022	160,103	29.9	27.1 to 32.3	26.9 to 32.6
97803	2023	168,641	31.7	29.1 to 33.9	28.8 to 34.2
97803	2024	181,992	35.1	32.4 to 37.4	32.1 to 37.6
97803	2025	196,387	36.2	33.7 to 38.2	33.4 to 38.4
97804	2010	6,250	21.9	16.2 to 26.8	15.8 to 27.3
97804	2011	6,540	22.7	18.0 to 25.9	17.6 to 26.2
97804	2012	7,397	25.0	19.8 to 28.6	19.4 to 28.9
97804	2013	9,054	21.6	17.2 to 25.4	16.9 to 25.7
97804	2014	10,904	17.2	14.9 to 19.6	14.7 to 19.8
97804	2015	10,172	26.1	21.8 to 29.0	21.4 to 29.3
97804	2016	10,113	38.8	32.7 to 41.7	32.2 to 41.9
97804	2017	10,340	41.6	35.8 to 45.0	35.3 to 45.3
97804	2018	11,061	38.8	33.3 to 42.0	32.8 to 42.3
97804	2019	10,878	32.9	28.1 to 36.4	27.7 to 36.7
97804	2020	5,095	30.3	20.6 to 39.7	20.0 to 40.5
97804	2021	8,515	29.8	24.1 to 36.2	23.7 to 36.8
97804	2022	10,579	23.3	19.7 to 28.4	19.4 to 28.9
97804	2023	12,159	19.4	16.8 to 25.3	16.6 to 25.9
97804	2024	14,039	17.4	14.9 to 23.4	14.7 to 24.0
97804	2025	15,474	17.6	15.4 to 23.2	15.3 to 23.7
G0108	2010	43,419	5.4	4.2 to 8.8	4.1 to 9.2
G0108	2011	50,955	3.0	2.6 to 5.3	2.6 to 5.6
G0108	2012	46,594	3.3	2.7 to 5.3	2.7 to 5.6
G0108	2013	50,531	3.6	3.0 to 5.6	3.0 to 5.8
G0108	2014	58,401	2.8	2.4 to 4.2	2.4 to 4.3
G0108	2015	55,548	1.9	1.6 to 3.6	1.6 to 3.7
G0108	2016	53,555	2.1	1.8 to 3.9	1.7 to 4.1
G0108	2017	58,941	1.3	1.1 to 3.4	1.1 to 3.7
G0108	2018	64,742	1.6	1.4 to 3.3	1.3 to 3.5
G0108	2019	71,433	1.9	1.6 to 3.4	1.6 to 3.6
G0108	2020	47,618	1.2	0.8 to 4.2	0.8 to 4.5
G0108	2021	54,799	1.3	1.0 to 4.0	1.0 to 4.2
G0108	2022	65,658	2.3	1.8 to 4.5	1.7 to 4.7
G0108	2023	85,604	0.5	0.4 to 1.9	0.4 to 2.1
G0108	2024	83,895	0.4	0.3 to 1.9	0.3 to 2.0
G0108	2025	80,812	0.4	0.3 to 2.1	0.3 to 2.3
G0109	2010	68,128	4.8	4.5 to 5.6	4.5 to 5.7
G0109	2011	54,621	5.3	5.1 to 6.1	5.0 to 6.2
G0109	2012	52,128	5.0	4.7 to 5.7	4.7 to 5.8

Code	Year	Published denied services, at least	Share carrying GA, GX, GY or GZ	Bounds, cap 10	Bounds, cap 11
G0109	2013	51,111	4.8	4.5 to 5.7	4.5 to 5.8
G0109	2014	53,231	6.8	6.5 to 7.5	6.4 to 7.5
G0109	2015	57,639	5.4	5.1 to 5.9	5.1 to 6.0
G0109	2016	42,238	2.5	2.3 to 3.4	2.3 to 3.5
G0109	2017	40,395	2.8	2.6 to 3.6	2.6 to 3.6
G0109	2018	39,780	3.9	3.6 to 4.6	3.6 to 4.6
G0109	2019	48,341	2.1	2.0 to 2.7	2.0 to 2.7
G0109	2020	12,397	2.1	1.6 to 3.8	1.5 to 4.0
G0109	2021	13,010	2.6	2.0 to 4.2	2.0 to 4.4
G0109	2022	19,200	2.1	1.8 to 3.7	1.8 to 3.8
G0109	2023	22,416	2.1	1.8 to 3.0	1.8 to 3.1
G0109	2024	20,639	0.9	0.7 to 1.7	0.7 to 1.7
G0109	2025	18,874	1.3	1.1 to 2.4	1.0 to 2.5
G0270	2010	1,606	5.7	2.6 to 16.1	2.5 to 17.0
G0270	2011	1,816	13.7	7.3 to 20.7	7.0 to 21.3
G0270	2012	1,969	10.0	5.0 to 16.0	4.8 to 16.5
G0270	2013	3,195	7.1	4.1 to 11.6	3.9 to 12.0
G0270	2014	3,672	1.6	1.1 to 6.0	1.1 to 6.4
G0270	2015	7,558	2.6	2.1 to 4.7	2.0 to 4.9
G0270	2016	8,813	3.3	2.7 to 6.1	2.6 to 6.4
G0270	2017	5,884	4.0	2.9 to 7.4	2.9 to 7.8
G0270	2018	7,840	2.6	2.0 to 5.6	2.0 to 5.9
G0270	2019	8,812	4.6	3.6 to 7.3	3.6 to 7.6
G0270	2020	19,248	0.4	0.3 to 3.0	0.3 to 3.3
G0270	2021	16,583	3.9	3.2 to 7.4	3.1 to 7.8
G0270	2022	7,478	9.6	6.4 to 17.1	6.2 to 17.8
G0270	2023	6,820	3.7	2.5 to 11.5	2.4 to 12.2
G0270	2024	7,305	4.7	3.1 to 11.6	3.0 to 12.2
G0270	2025	9,733	7.5	5.4 to 13.1	5.2 to 13.6
G0271	2010	107	0.0	0.0 to 15.7	0.0 to 17.1
G0271	2011	234	16.2	6.5 to 22.8	6.1 to 23.4
G0271	2012	257	26.8	11.6 to 36.7	10.9 to 37.5
G0271	2013	366	34.7	14.0 to 36.4	13.2 to 36.6
G0271	2014	356	32.0	13.8 to 37.3	13.1 to 37.8
G0271	2015	455	31.6	17.0 to 37.2	16.3 to 37.7
G0271	2016	1,230	12.9	10.1 to 17.0	9.8 to 17.4
G0271	2017	709	30.5	18.8 to 35.9	18.1 to 36.4
G0271	2018	483	11.8	6.2 to 28.2	5.9 to 29.5
G0271	2019	461	3.9	2.0 to 11.6	1.9 to 12.3
G0271	2020	162	0.0	0.0 to 5.8	0.0 to 6.4
G0271	2021	76	40.8	7.1 to 64.3	6.6 to 65.6
G0271	2022	129	0.0	0.0 to 27.9	0.0 to 29.9
G0271	2023	309	0.0	0.0 to 6.1	0.0 to 6.6
G0271	2024	213	7.0	2.7 to 15.0	2.6 to 15.7
G0271	2025	133	18.8	4.9 to 41.0	4.5 to 42.6

Panel B. The 97804 minus G0109 gap excluding rows with any of those four modifiers.

Billers	Year	97804 minus G0109 excluding those rows, estimator	Bounds, cap 10	Bounds, cap 11
All billers	2010	+12.7	+4.3 to +24.8	+3.6 to +25.9
All billers	2011	+18.2	+11.3 to +27.1	+10.7 to +27.9
All billers	2012	+18.9	+11.4 to +28.2	+10.7 to +29.0
All billers	2013	+31.8	+20.8 to +39.7	+19.8 to +40.4
All billers	2014	+28.0	+20.5 to +33.1	+19.8 to +33.6
All billers	2015	+25.0	+15.6 to +31.7	+14.7 to +32.2
All billers	2016	+27.2	+18.1 to +35.0	+17.3 to +35.6
All billers	2017	+29.1	+20.6 to +36.8	+19.8 to +37.4
All billers	2018	+28.1	+19.9 to +35.7	+19.2 to +36.4
All billers	2019	+26.3	+17.9 to +33.3	+17.2 to +33.9
All billers	2020	+39.3	+15.4 to +54.3	+13.6 to +55.4
All billers	2021	+48.0	+28.5 to +56.4	+26.8 to +57.1
All billers	2022	+44.2	+28.0 to +50.2	+26.6 to +50.7
All billers	2023	+43.8	+30.8 to +49.7	+29.7 to +50.2
All billers	2024	+49.0	+33.9 to +53.9	+32.6 to +54.4
All billers	2025	+51.1	+37.1 to +55.4	+35.8 to +55.8
Dietitian-billed (specialty 71)	2010	-0.1	-3.4 to +10.6	-3.7 to +11.5
Dietitian-billed (specialty 71)	2011	+6.5	+4.2 to +13.1	+4.0 to +13.7
Dietitian-billed (specialty 71)	2012	+10.9	+8.3 to +17.0	+8.1 to +17.6
Dietitian-billed (specialty 71)	2013	+15.4	+11.2 to +23.9	+10.8 to +24.6
Dietitian-billed (specialty 71)	2014	+9.5	+7.0 to +13.5	+6.8 to +13.9
Dietitian-billed (specialty 71)	2015	+12.9	+9.7 to +17.8	+9.4 to +18.2
Dietitian-billed (specialty 71)	2016	+16.8	+13.8 to +21.7	+13.5 to +22.2
Dietitian-billed (specialty 71)	2017	+19.2	+15.7 to +25.0	+15.4 to +25.6
Dietitian-billed (specialty 71)	2018	+25.3	+21.8 to +30.7	+21.5 to +31.2
Dietitian-billed (specialty 71)	2019	+28.3	+24.8 to +32.5	+24.5 to +32.9
Dietitian-billed (specialty 71)	2020	+26.0	+10.8 to +43.8	+9.6 to +45.2
Dietitian-billed (specialty 71)	2021	+41.0	+28.2 to +49.0	+27.1 to +49.7
Dietitian-billed (specialty 71)	2022	+40.2	+29.3 to +45.3	+28.3 to +45.7
Dietitian-billed (specialty 71)	2023	+42.9	+35.3 to +47.3	+34.6 to +47.7
Dietitian-billed (specialty 71)	2024	+52.6	+43.1 to +56.2	+42.2 to +56.5
Dietitian-billed (specialty 71)	2025	+53.8	+45.4 to +56.9	+44.6 to +57.2

Notes: A modifier records how a service was billed, not why Medicare denied it, and the file records no reason for denial. Excluding these rows is a sensitivity, not a cleaner measure: those services were still denied. Both modifier positions are read, because reading the initial position alone would understate the 2025 share for 97804 by 3.6 percentage points. Shares for G0270 and G0271 rest on small denominators and swing widely; they are printed for completeness and should not be interpreted.

Table G. Submitted services and denial rates for services coded as telehealth and for all other services, seven codes, calendar years 2020 to 2025, fee-for-service Part B carrier claims. Units: services and percent of submitted services. Basis: a service is counted as coded as telehealth when it carries place of service 02 or 10, or modifier 95 or GT in either of the two modifier positions the file records; rates are the published-cell estimator, and bounds treat each unpublished count as at most 10. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026.

Code	Year	Coded as telehealth: submitted services, at least	Coded as telehealth: denial rate (bounds)	Not coded as telehealth: submitted services, at least	Not coded as telehealth: denial rate (bounds)
97802	2020	66,672	36.9 (32.7 to 46.0)	209,696	37.6 (35.7 to 41.3)
97802	2021	82,270	42.1 (38.4 to 48.8)	247,138	40.3 (38.5 to 43.3)
97802	2022	77,933	47.4 (42.4 to 54.9)	279,441	46.9 (45.1 to 49.3)
97802	2023	67,417	41.7 (37.3 to 49.9)	264,428	41.7 (40.0 to 44.4)

Code	Year	Coded as telehealth: submitted services, at least	Coded as telehealth: denial rate (bounds)	Not coded as telehealth: submitted services, at least	Not coded as telehealth: denial rate (bounds)
97802	2024	75,131	42.1 (37.5 to 50.4)	266,593	42.4 (40.8 to 44.9)
97802	2025	82,179	44.9 (40.3 to 52.5)	264,971	43.2 (41.5 to 45.7)
97803	2020	90,442	48.1 (43.9 to 54.2)	207,262	35.8 (34.2 to 39.2)
97803	2021	120,288	54.4 (51.0 to 58.3)	235,036	42.8 (41.2 to 45.3)
97803	2022	100,924	52.0 (47.5 to 57.7)	239,707	44.9 (43.2 to 47.4)
97803	2023	99,487	53.5 (49.0 to 58.6)	246,348	46.9 (45.1 to 49.2)
97803	2024	115,787	53.3 (49.0 to 58.1)	251,563	47.8 (46.1 to 50.1)
97803	2025	130,965	56.5 (52.4 to 60.7)	253,333	48.3 (46.7 to 50.3)
97804	2020	1,520	72.9 (42.9 to 87.1)	5,748	69.4 (52.8 to 79.9)
97804	2021	5,442	82.9 (68.0 to 87.8)	5,242	76.3 (60.3 to 83.4)
97804	2022	7,059	88.5 (76.1 to 91.2)	5,768	75.1 (60.8 to 81.2)
97804	2023	8,382	91.2 (80.3 to 93.0)	6,721	67.1 (55.2 to 75.6)
97804	2024	10,542	94.3 (80.6 to 95.6)	6,033	67.8 (54.8 to 76.2)
97804	2025	12,845	93.6 (83.2 to 95.1)	5,029	68.7 (53.2 to 77.1)
G0270	2020	18,609	4.6 (4.3 to 15.2)	79,562	23.1 (22.7 to 25.2)
G0270	2021	20,407	7.3 (6.9 to 17.3)	72,818	20.7 (20.3 to 22.9)
G0270	2022	18,536	7.2 (6.7 to 19.0)	52,746	11.7 (11.3 to 15.0)
G0270	2023	20,275	9.5 (9.0 to 18.9)	45,528	10.8 (10.5 to 14.2)
G0270	2024	28,541	5.9 (5.6 to 14.9)	57,349	9.8 (9.6 to 12.5)
G0270	2025	37,968	11.0 (10.6 to 17.6)	59,874	9.3 (9.1 to 12.0)
G0271	2020	353	19.3 (15.0 to 41.5)	337	27.9 (17.8 to 61.5)
G0271	2021	468	4.1 (3.3 to 27.5)	91	62.6 (16.7 to 95.9)
G0271	2022	767	16.8 (14.2 to 34.1)	60	0.0 (0.0 to 90.2)
G0271	2023	685	38.2 (31.4 to 50.5)	186	25.3 (10.5 to 77.8)
G0271	2024	684	24.3 (21.7 to 33.5)	252	18.7 (9.6 to 64.4)
G0271	2025	379	32.2 (26.0 to 45.2)	320	3.4 (1.9 to 59.5)
G0108	2020	34,796	17.9 (14.4 to 38.5)	152,005	27.2 (25.5 to 33.3)
G0108	2021	33,855	16.1 (13.6 to 33.7)	175,310	28.1 (26.8 to 32.7)
G0108	2022	28,524	27.2 (22.3 to 44.8)	189,794	30.5 (29.0 to 35.0)
G0108	2023	20,655	28.8 (22.6 to 48.5)	201,429	39.5 (37.8 to 42.9)
G0108	2024	21,489	39.4 (30.6 to 57.5)	176,012	42.9 (40.9 to 46.0)
G0108	2025	19,519	31.3 (23.5 to 53.6)	171,979	43.4 (41.2 to 47.1)
G0109	2020	5,003	23.1 (19.8 to 42.7)	47,036	23.9 (23.0 to 29.1)
G0109	2021	12,767	23.7 (21.7 to 34.5)	36,200	27.6 (26.4 to 32.3)
G0109	2022	13,455	31.7 (29.2 to 41.2)	42,153	35.4 (34.3 to 39.0)
G0109	2023	11,058	35.7 (32.3 to 45.3)	55,557	33.2 (32.3 to 36.3)
G0109	2024	10,661	40.0 (36.0 to 50.5)	52,101	31.4 (30.6 to 34.4)
G0109	2025	8,826	30.2 (27.5 to 41.5)	48,443	33.5 (32.4 to 36.9)

Notes: The definition records how a claim was coded, not how the service was delivered. Place of service 10 took effect on January 1, 2022 and became available to Medicare on April 1, 2022, the same dates from which place of service 02 carries its present description, so shares are not strictly comparable across these years. Adding modifiers 93, FQ and GQ, which also appear in the file, moves no rate or bound here by more than 0.7 percentage points. The file records no reason for denial.

Table H. Carrier 01112 and telehealth coding in group nutrition therapy (code 97804), calendar years 2020 to 2025, fee-for-service Part B carrier claims. Units: percent of published submitted or published denied services, and percent of submitted services for a denial rate. Basis: a carrier number identifies the Medicare contractor jurisdiction that processed a claim, not a billing practitioner or organization; shares use publishedcells and the bounds in parentheses treat each unpublished count as at most 10. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, calendar years 2010 to 2025, retrieved September 11, 2026.

Year	Carrier 01112: share of published submitted 97804 services	Carrier 01112: share of published denied 97804 services	Carrier 01112: 97804 denial rate	Coded as telehealth: share of published submitted 97804 services	Coded as telehealth: share of published denied 97804 services	97804 denial rate excluding carrier 01112
2020	6.0 (4.3 to 7.9)	5.6 (3.5 to 9.0)	66.1 (49.1 to 81.6)	20.9 (16.7 to 31.0)	21.7 (15.5 to 36.1)	70.4 (50.3 to 81.7)
2021	23.8 (19.5 to 25.4)	28.0 (21.5 to 30.1)	93.6 (86.2 to 95.6)	50.9 (45.1 to 55.9)	53.0 (44.9 to 59.3)	75.4 (58.4 to 83.0)
2022	33.5 (28.3 to 34.3)	39.1 (31.7 to 40.3)	96.2 (92.7 to 97.4)	55.0 (49.8 to 58.7)	59.1 (51.9 to 63.4)	75.6 (59.3 to 82.1)
2023	39.1 (33.8 to 39.9)	47.1 (38.7 to 48.0)	97.0 (94.0 to 97.4)	55.5 (50.6 to 58.6)	62.9 (55.3 to 66.3)	69.9 (55.4 to 78.5)
2024	49.6 (41.8 to 50.0)	57.4 (46.5 to 57.9)	98.1 (96.3 to 98.2)	63.6 (58.5 to 67.2)	70.8 (63.6 to 74.2)	71.6 (52.3 to 81.0)
2025	52.3 (44.9 to 52.6)	59.6 (49.5 to 59.9)	98.5 (97.3 to 98.8)	71.9 (66.4 to 74.2)	77.7 (70.6 to 79.9)	73.5 (54.6 to 81.9)

Notes: This table prints 2020 to 2025, the years over which the telehealth comparison beside it is drawn. Carrier 01112 is not new to these codes: published 97804 rows for it appear from 2013, and only the 3 years 2010 to 2012 carry none. The deposited file gives every year from 2010. The file records no reason for denial, for this contractor or any other, and cannot show whether a cell reflects one biller or many. Nothing here attributes a cause.

Table I. Rendering providers, beneficiaries and services for codes 97802 and 97804 by setting, data years 2013 to 2024. Units: National Provider Identifiers, distinct beneficiaries within a row, and services. Basis: national rows of the CMS Medicare Physician and Other Practitioners by Geography and Service data, which summarize fee-for-service Part B non-institutional claims; facility and non-facility follow the place of service on the claim. Source: CMS, Medicare Physician and Other Practitioners by Geography and Service, data years 2013 to 2024, retrieved through the data.cms.gov application programming interface on September 15, 2026 and checked field by field against the annual published files.

Panel A. Code 97802, individual initial assessment and intervention, each 15 minutes

Year	Facility: rendering providers	Facility: beneficiaries	Facility: services	Non-facility: rendering providers	Non-facility: beneficiaries	Non-facility: services
2013	461	5,461	20,263	2,425	47,338	192,271
2014	416	5,180	18,931	2,470	48,345	197,016
2015	425	4,559	16,875	2,705	49,727	201,699
2016	320	2,944	10,745	2,979	51,456	208,015
2017	286	2,437	8,670	3,120	51,647	207,132
2018	277	2,219	7,683	3,294	52,167	209,128
2019	250	2,117	7,146	3,446	54,057	216,572
2020	259	1,471	4,822	3,533	43,151	168,583
2021	287	2,067	7,091	3,784	48,275	188,474
2022	232	1,796	6,224	3,946	46,673	183,629
2023	232	1,840	6,320	4,077	47,482	187,567
2024	214	1,568	5,351	4,365	48,410	192,043

Panel B. Code 97804, group, each 30 minutes

Year	Facility: rendering providers	Facility: beneficiaries	Facility: services	Non-facility: rendering providers	Non-facility: beneficiaries	Non-facility: services
2013	49	293	953	193	1,403	4,187
2014	52	225	605	207	1,741	5,508
2015	47	198	505	238	1,625	5,024
2016	35	165	453	276	1,765	5,430
2017	37	167	400	257	1,638	5,132
2018	27	131	337	317	1,775	5,456
2019	22	66	173	290	1,694	5,415
2020	22	47	131	183	791	2,137
2021	17	56	146	177	783	2,107
2022	14	39	117	202	859	2,256
2023	12	32	99	222	1,022	2,831
2024	6	11	24	210	966	2,608

Notes: A provider billing in both settings appears in both columns and a beneficiary seen in both settings is counted in both, so the columns cannot be added to give distinct providers or beneficiaries, and the two codes cannot be added either. Services are counted as billed, in units of 15 minutes for 97802 and 30 minutes for 97804, and are rounded to the nearest whole service; provider and beneficiary counts are as published. Because the data exclude institutional claims and Medicare Advantage, the beneficiary counts are floors on the number of Medicare beneficiaries who received nutrition therapy, and provider identifiers are not a count of practitioners. The service counts are consistent with allowed rather than submitted services in all 24 code-years tested against the procedure summary, and the documentation does not state whether denied lines are counted. These counts describe billed use; they do not measure demand, need or access.

Table J. Total relative value units, the conversion factor, and the national schedule amount, the statutory 85 percent amount and Medicare's payment per service for the nutrition therapy codes, calendar years 2010 to 2026. Units: relative value units, dollars per relative value unit, and dollars per service, nominal and in constant 2025 dollars. Basis: national amounts with no geographic adjustment; total relative value units are work plus practice expense plus malpractice, never work alone; facility and non-facility are separate schedules and are not compared with each other; the 85 percent amount is the statutory basis for this benefit, and Medicare's payment is its share of that amount, 80 percent in 2010 and 100 percent from 2011, before sequestration. Source: CMS national physician fee schedule relative value files, every release for 2010 to 2026, retrieved September 15, 2026 (the 2010 releases from Internet Archive captures of the CMS addresses), with conversion factors from the annual physician fee schedule final rules and correction notices in the Federal Register.

Panel A. Total relative value units and the conversion factor.

Year	Conversion factor, days weighted	97802 non-facility	97802 facility	97803 and G0270 non-facility	97803 and G0270 facility	97804 and G0271 non-facility	97804 and G0271 facility
2010	36.5445	0.81	0.77	0.71	0.66	0.36	0.36
2011	33.9764	0.94	0.88	0.82	0.76	0.41	0.41
2012	34.0376	1.00	0.93	0.87	0.80	0.44	0.43
2013	34.0230	1.04	0.96	0.90	0.82	0.46	0.45
2014	35.8228	1.00	0.93	0.86	0.80	0.45	0.43
2015	35.8448	0.98	0.92	0.84	0.77	0.45	0.43
2016	35.8043	0.98	0.92	0.85	0.78	0.45	0.43
2017	35.8887	0.98	0.92	0.85	0.78	0.45	0.43
2018	35.9996	0.98	0.92	0.85	0.78	0.45	0.43
2019	36.0391	1.05	0.96	0.91	0.82	0.48	0.45
2020	36.0896	1.06	0.96	0.92	0.81	0.48	0.45
2021	34.8931	1.08	0.95	0.93	0.81	0.49	0.45
2022	34.6062	1.08	0.95	0.94	0.81	0.50	0.45
2023	33.8872	1.09	0.96	0.95	0.81	0.50	0.46
2024	33.1866	1.09	0.95	0.95	0.81	0.50	0.46
2025	32.3465	1.10	0.97	0.96	0.82	0.51	0.46
2026	33.4009	1.10	0.79	0.95	0.66	0.51	0.37

Panel B. Schedule amount, 85 percent of schedule and Medicare payment, per service.

Year	Code	Setting	Schedule amount	85 percent of schedule	Medicare payment	Schedule amount, constant 2025 dollars	Medicare payment, constant 2025 dollars
2010	97802	non-facility	$29.60	$25.16	$20.13	$43.70	$29.72
2010	97802	facility	$28.14	$23.92	$19.13	$41.55	$28.25
2010	97803 and G0270	non-facility	$25.95	$22.05	$17.64	$38.31	$26.05
2010	97803 and G0270	facility	$24.12	$20.50	$16.40	$35.61	$24.22
2010	97804 and G0271	non-facility	$13.16	$11.18	$8.95	$19.42	$13.21
2010	97804 and G0271	facility	$13.16	$11.18	$8.95	$19.42	$13.21
2011	97802	non-facility	$31.94	$27.15	$27.15	$45.71	$38.85
2011	97802	facility	$29.90	$25.41	$25.41	$42.79	$36.37
2011	97803 and G0270	non-facility	$27.86	$23.68	$23.68	$39.88	$33.89
2011	97803 and G0270	facility	$25.82	$21.95	$21.95	$36.96	$31.41
2011	97804 and G0271	non-facility	$13.93	$11.84	$11.84	$19.94	$16.95
2011	97804 and G0271	facility	$13.93	$11.84	$11.84	$19.94	$16.95

Year	Code	Setting	Schedule amount	85 percent of schedule	Medicare payment	Schedule amount, constant 2025 dollars	Medicare payment, constant 2025 dollars
2012	97802	non-facility	$34.04	$28.93	$28.93	$47.73	$40.57
2012	97802	facility	$31.65	$26.91	$26.91	$44.39	$37.73
2012	97803 and G0270	non-facility	$29.61	$25.17	$25.17	$41.52	$35.30
2012	97803 and G0270	facility	$27.23	$23.15	$23.15	$38.18	$32.46
2012	97804 and G0271	non-facility	$14.98	$12.73	$12.73	$21.00	$17.85
2012	97804 and G0271	facility	$14.64	$12.44	$12.44	$20.52	$17.44
2013	97802	non-facility	$35.38	$30.08	$30.08	$48.90	$41.57
2013	97802	facility	$32.66	$27.76	$27.76	$45.14	$38.37
2013	97803 and G0270	non-facility	$30.62	$26.03	$26.03	$42.32	$35.97
2013	97803 and G0270	facility	$27.90	$23.71	$23.71	$38.56	$32.77
2013	97804 and G0271	non-facility	$15.65	$13.30	$13.30	$21.63	$18.38
2013	97804 and G0271	facility	$15.31	$13.01	$13.01	$21.16	$17.98
2014	97802	non-facility	$35.82	$30.45	$30.45	$48.72	$41.41
2014	97802	facility	$33.32	$28.32	$28.32	$45.31	$38.51
2014	97803 and G0270	non-facility	$30.81	$26.19	$26.19	$41.90	$35.61
2014	97803 and G0270	facility	$28.66	$24.36	$24.36	$38.97	$33.13
2014	97804 and G0271	non-facility	$16.12	$13.70	$13.70	$21.92	$18.63
2014	97804 and G0271	facility	$15.40	$13.09	$13.09	$20.95	$17.81
2015	97802	non-facility	$35.13	$29.86	$29.86	$47.71	$40.56
2015	97802	facility	$32.98	$28.03	$28.03	$44.79	$38.07
2015	97803 and G0270	non-facility	$30.11	$25.59	$25.59	$40.90	$34.76
2015	97803 and G0270	facility	$27.60	$23.46	$23.46	$37.49	$31.87
2015	97804 and G0271	non-facility	$16.13	$13.71	$13.71	$21.91	$18.62
2015	97804 and G0271	facility	$15.41	$13.10	$13.10	$20.94	$17.80
2016	97802	non-facility	$35.09	$29.82	$29.82	$47.07	$40.01
2016	97802	facility	$32.94	$28.00	$28.00	$44.19	$37.56
2016	97803 and G0270	non-facility	$30.43	$25.87	$25.87	$40.82	$34.70
2016	97803 and G0270	facility	$27.93	$23.74	$23.74	$37.46	$31.84
2016	97804 and G0271	non-facility	$16.11	$13.70	$13.70	$21.61	$18.37
2016	97804 and G0271	facility	$15.40	$13.09	$13.09	$20.65	$17.55
2017	97802	non-facility	$35.17	$29.90	$29.90	$46.19	$39.26
2017	97802	facility	$33.02	$28.06	$28.06	$43.37	$36.86
2017	97803 and G0270	non-facility	$30.51	$25.93	$25.93	$40.07	$34.06
2017	97803 and G0270	facility	$27.99	$23.79	$23.79	$36.77	$31.25
2017	97804 and G0271	non-facility	$16.15	$13.73	$13.73	$21.21	$18.03
2017	97804 and G0271	facility	$15.43	$13.12	$13.12	$20.27	$17.23
2018	97802	non-facility	$35.28	$29.99	$29.99	$45.23	$38.45
2018	97802	facility	$33.12	$28.15	$28.15	$42.46	$36.09
2018	97803 and G0270	non-facility	$30.60	$26.01	$26.01	$39.23	$33.35
2018	97803 and G0270	facility	$28.08	$23.87	$23.87	$36.00	$30.60
2018	97804 and G0271	non-facility	$16.20	$13.77	$13.77	$20.77	$17.65
2018	97804 and G0271	facility	$15.48	$13.16	$13.16	$19.85	$16.87
2019	97802	non-facility	$37.84	$32.16	$32.16	$47.65	$40.50
2019	97802	facility	$34.60	$29.41	$29.41	$43.57	$37.03
2019	97803 and G0270	non-facility	$32.80	$27.88	$27.88	$41.30	$35.10
2019	97803 and G0270	facility	$29.55	$25.12	$25.12	$37.21	$31.63

Year	Code	Setting	Schedule amount	85 percent of schedule	Medicare payment	Schedule amount, constant 2025 dollars	Medicare payment, constant 2025 dollars
2019	97804 and G0271	non-facility	$17.30	$14.70	$14.70	$21.78	$18.52
2019	97804 and G0271	facility	$16.22	$13.78	$13.78	$20.42	$17.36
2020	97802	non-facility	$38.25	$32.52	$32.52	$47.59	$40.45
2020	97802	facility	$34.65	$29.45	$29.45	$43.10	$36.63
2020	97803 and G0270	non-facility	$33.20	$28.22	$28.22	$41.30	$35.11
2020	97803 and G0270	facility	$29.23	$24.85	$24.85	$36.36	$30.91
2020	97804 and G0271	non-facility	$17.32	$14.72	$14.72	$21.55	$18.32
2020	97804 and G0271	facility	$16.24	$13.80	$13.80	$20.20	$17.17
2021	97802	non-facility	$37.68	$32.03	$32.03	$44.77	$38.06
2021	97802	facility	$33.15	$28.18	$28.18	$39.38	$33.48
2021	97803 and G0270	non-facility	$32.45	$27.58	$27.58	$38.55	$32.77
2021	97803 and G0270	facility	$28.26	$24.02	$24.02	$33.58	$28.54
2021	97804 and G0271	non-facility	$17.10	$14.53	$14.53	$20.31	$17.27
2021	97804 and G0271	facility	$15.70	$13.35	$13.35	$18.66	$15.86
2022	97802	non-facility	$37.37	$31.77	$31.77	$41.12	$34.95
2022	97802	facility	$32.88	$27.94	$27.94	$36.17	$30.74
2022	97803 and G0270	non-facility	$32.53	$27.65	$27.65	$35.79	$30.42
2022	97803 and G0270	facility	$28.03	$23.83	$23.83	$30.84	$26.21
2022	97804 and G0271	non-facility	$17.30	$14.71	$14.71	$19.03	$16.18
2022	97804 and G0271	facility	$15.57	$13.24	$13.24	$17.13	$14.56
2023	97802	non-facility	$36.94	$31.40	$31.40	$39.03	$33.17
2023	97802	facility	$32.53	$27.65	$27.65	$34.37	$29.22
2023	97803 and G0270	non-facility	$32.19	$27.36	$27.36	$34.01	$28.91
2023	97803 and G0270	facility	$27.45	$23.33	$23.33	$29.00	$24.65
2023	97804 and G0271	non-facility	$16.94	$14.40	$14.40	$17.90	$15.22
2023	97804 and G0271	facility	$15.59	$13.25	$13.25	$16.47	$14.00
2024	97802	non-facility	$36.17	$30.75	$30.75	$37.13	$31.56
2024	97802	facility	$31.53	$26.80	$26.80	$32.36	$27.50
2024	97803 and G0270	non-facility	$31.53	$26.80	$26.80	$32.36	$27.50
2024	97803 and G0270	facility	$26.88	$22.85	$22.85	$27.59	$23.45
2024	97804 and G0271	non-facility	$16.59	$14.10	$14.10	$17.03	$14.48
2024	97804 and G0271	facility	$15.27	$12.98	$12.98	$15.67	$13.32
2025	97802	non-facility	$35.58	$30.24	$30.24	$35.58	$30.24
2025	97802	facility	$31.38	$26.67	$26.67	$31.38	$26.67
2025	97803 and G0270	non-facility	$31.05	$26.39	$26.39	$31.05	$26.39
2025	97803 and G0270	facility	$26.52	$22.55	$22.55	$26.52	$22.55
2025	97804 and G0271	non-facility	$16.50	$14.02	$14.02	$16.50	$14.02
2025	97804 and G0271	facility	$14.88	$12.65	$12.65	$14.88	$12.65
2026	97802	non-facility	$36.74	$31.23	$31.23	$35.67	$30.32
2026	97802	facility	$26.39	$22.43	$22.43	$25.61	$21.77
2026	97803 and G0270	non-facility	$31.73	$26.97	$26.97	$30.80	$26.18
2026	97803 and G0270	facility	$22.04	$18.74	$18.74	$21.40	$18.19
2026	97804 and G0271	non-facility	$17.03	$14.48	$14.48	$16.54	$14.06
2026	97804 and G0271	facility	$12.36	$10.50	$10.50	$12.00	$10.20

Notes: G0270 carries the same relative values as 97803, and G0271 the same as 97804, in every year shown. The 2010 practice expense values are the transitioned values CMS used for payment. The 2026 conversion factor shown is the nonqualifying alternative payment model factor. Constant 2025 dollars use CPI-U annual averages; the 2026 figures use the mean of the eight months published at retrieval and are provisional. These are national scheduled amounts, not what any practitioner received.

Appendix B. Methods

Data and code

Every figure in this report drawn from claims, enrollment, price or bill files was computed by script from archived copies of the primary files, which the data record carries except the relative value files (described below). The scripts for the claims tables and the price index (tasks R3-T01 to R3-T04, R3-T08, R3-T10 and R3-T18) check each archived file against its SHA-256 manifest and fail when a hash does not match; the script that parses the relative value files and the scripts that read the bill files do not make that check when they run. The deposit carries the extraction and gate scripts that built and checked the archive, the analysis scripts written for this report, the manifests, and a SHA-256 manifest of the files in each part of the data record; the version 1.2 archive's manifest is the authoritative list of what that archive holds, and the supplement lists its own files.

The scripts keep the paths of the author's computer, so the data record as deposited does not rerun them without changing those paths. One was rerun from the version 1.2 archive with only a path changed in a copy, the script for the seven-code claims table (R3-T01), and it reproduced the output files the archive holds, apart from line endings. The relative value files are not in the archive. Three scripts of task R3-T16 were tested for these files: verify_rvu_extract.py checks the archive's extract of them against the table of their addresses and SHA-256 values, from the archive alone; fetch_rvu.py downloads the originals and checks each against its SHA-256; and, with the originals supplied, parse_rvu.py rebuilt the extract, apart from line endings. The other scripts, and the validity gate as a whole, ran in the author's working copy and are not expected to run from the record. The supplement carries three sets of checks that run from it alone: of the corrected passages, of the figures and of the sentences about the data record.

The procedure summary was retrieved twice for each of the 16 years, as the published annual file and through the CMS data application programming interface. The two routes return the same number of rows in every year and the same values on every dimension and measure used here after number formats are normalized. The qualification matters: in 9 of the 16 years the two routes differ as strings, in zero padding and in how a few columns are printed (allowed charge amt, assigned services cnt, denied charge amt, denied services cnt and others), and agreement is exact only once those formats are normalized.

Suppression, bounds and the cap

The procedure summary publishes no count below 11 and no zero: a count from 0 to 10 appears as a blank in the 2010 to 2020 files and as an asterisk in the 2021 to 2025 files. Two quantities are therefore reported together. The published-cell estimator is published denied services divided by published submitted services; it counts an unpublished denial as zero and drops rows whose submitted count is unpublished, so the rate it gives can lie above the lowest rate the file allows. The exact bounds are the lowest and highest values consistent with every unpublished cell, and they are the interval for every rate, share and difference in this report. The procedure summary is a tabulation of processed claims rather than a sample, so no sampling standard error applies and none is reported. No hypothesis test is computed anywhere in this report, so no question of clustering arises.

The bounds assume that no unpublished count exceeds 10, the file's stated suppression threshold. Published counts include fractional values and the smallest published value is 11.0, so a value between 10 and 11 cannot be ruled out. Every bound printed in this report was therefore recomputed at a cap of 11. Appendix A gives both caps for the denial rates, their differences, the group-code gap and its change, the modifier shares, the telehealth split and the specialty stratification. One conclusion changes at a cap of 11, in one year and one comparison, and it is disclosed where that comparison is made. Rows carrying a non-zero value in the file's error indicator field are included here, as they are in CMS's own totals; the field is documented only as a code for combinations of errors on key fields and is not a reason for denial. Dropping those rows would move a 2010 rate by up to 6.9 percentage points, and a rate in any other year by 0.2 points or less.

Definitions used in the tabulations

A service is the file's count as submitted, which for a time-based code is a unit of time rather than a session, a claim or a beneficiary. A service is counted as coded as telehealth when it carries place of service 02 or 10, or modifier 95 or GT in either of the two modifier positions the file records; that definition describes how a claim was coded, not how the service was delivered. A carrier number identifies the Medicare contractor jurisdiction that processed a claim, not a billing practitioner or organization, and a pricing locality is a geographic area within which fee schedule amounts are adjusted. Dietitian-billed means provider specialty code 71, which the Medicare Claims Processing Manual gives as registered dietitian or nutrition professional; a specialty code is the code used to price the line, not the credential of whoever furnished the service. The physician specialty codes used in Table E are the 66 codes below: the 86 codes listed as physician specialties in section 10.8.2 of chapter 26 of the Medicare Claims Processing Manual, less the 20 the body names as not, or not known to be, medical or osteopathic specialties. The 66 are 01 general practice, 02 general surgery, 03 allergy/immunology, 04 otolaryngology, 05 anesthesiology, 06 cardiology, 07 dermatology, 08 family practice, 09 interventional pain management, 10 gastroenterology, 11 internal medicine, 12 osteopathic manipulative medicine, 13 neurology, 14 neurosurgery, 16 obstetrics/gynecology, 17 hospice and palliative care, 18 ophthalmology, 20 orthopedic surgery, 21 cardiac electrophysiology, 22 pathology, 23 sports medicine, 24 plastic and reconstructive surgery, 25 physical medicine and rehabilitation, 26 psychiatry, 27 geriatric psychiatry, 28 colorectal surgery (formerly proctology), 29 pulmonary disease, 30 diagnostic radiology, 33 thoracic surgery, 34 urology, 36 nuclear medicine, 37 pediatric medicine, 38 geriatric medicine, 39 nephrology, 40 hand surgery, 44 infectious disease, 46 endocrinology, 66 rheumatology, 72 pain management, 76 peripheral vascular disease, 77 vascular surgery, 78 cardiac surgery, 79 addiction medicine, 81 critical care (intensivists), 82 hematology, 83 hematology/oncology, 84 preventive medicine, 85 maxillofacial surgery, 86 neuropsychiatry, 90 medical oncology, 91 surgical oncology, 92 radiation oncology, 93 emergency medicine, 94

interventional radiology, 98 gynecological/oncology, C0 sleep medicine, C3 interventional cardiology, C6 hospitalist, C7 advanced heart failure and transplant cardiology, C8 medical toxicology, C9 hematopoietic cell transplantation and cellular therapy, D3 medical genetics and genomics, D4 undersea and hyperbaric medicine, D7 micrographic dermatologic surgery, D8 adult congenital heart disease, F6 epileptologists.

Deflation and denominators

Dollars are deflated with the Consumer Price Index for All Urban Consumers, series CUUR0000SA0, all items, United States city average, not seasonally adjusted, annual averages, base 2025. The 2025 annual average of 321.943 rests on the eleven monthly indexes the Bureau of Labor Statistics published for that year, because no October 2025 index was published; imputing that month moves the fall in constant-dollar allowed charges since 2019 by about a tenth of a percentage point and changes no conclusion. Enrollment denominators are CMS Medicare Monthly Enrollment, national rows, Part B enrollees in original fee-for-service Medicare; that product's national annual rows begin in 2013. Per-enrollee figures divide a fee-for-service carrier-claims total by fee-for-service Part B enrollment, which is not the population eligible for this benefit.

Rounding

One rule, stated here once for the whole report. Tables round to the nearest unit shown. A sentence that draws a conclusion rounds the safe way instead, so a figure introduced by at least rounds down and a figure introduced by at most rounds up, and a conclusion stated in the text therefore holds at the precision printed. Sums over published cells are floors and round down to a whole service. Rates, shares and differences are given to the nearest tenth of a percentage point, dollars per service to the cent, and relative value units as CMS prints them, to two decimal places.

Artificial intelligence

Claude (Anthropic; used through Claude Code) was used from August to October 2026 (model Claude Opus 5 in August and September; Claude Opus 5.5 and Claude Sonnet 5.5 for the October audits, corrections and edits) to write and run the code that retrieved and tabulated these files and produced the figures, to retrieve, archive and check the legal and documentary sources, and to draft and revise the text. Every figure drawn from the claims, enrollment, price, cost-estimate and bill files was recomputed by separate code from the author's archive of the primary files, and every citation, quotation and documentary figure was checked against the source that issued it. The independent recomputations were themselves AI-assisted and were not reviewed by a second person. The author reviewed all code output, sources and text and is responsible for them.

What the gate establishes, and what it does not

Before release a separate program, written against the archive rather than against the analysis code, accounts for every number in this report. It matches each numeral in the text, the tables, the figure captions and the alt text to a value that an analysis task recorded, and, for the sentences that a task's own checks cover, it recomputes the quantities from the archived primary files (for the relative value files, from the extract made from them) and checks that the sentence still says what the recomputation says. It fails on any number it cannot match, on any table cell it cannot parse, on any region of the text it did not scan and on its own errors, so it cannot pass by not looking. What it establishes is reproduction: that the figures printed here are the ones the analysis tasks recorded, that the quantities the tasks' checks cover follow from the archived files by the stated method, and that two or more independent implementations agree. It does not establish validity. It cannot show that the suppression cap is right, that the published-cell estimator is the best summary of a file with this much suppression, that the comparator chosen for group nutrition therapy is the right one, or that any association here has a cause. Those judgments are argued in the text and are open to disagreement on the same public files. Each interpreted quantity is reported with its own interval, which for this census file is its exact suppression bound at a stated cap, and the gate checks that each such quantity carries one.

Appendix C. Supporting detail for the main text

This appendix holds detail summarized in the main text, in the order of the sections it supports.

National rules considered and excluded

National rules considered and excluded, with the reason: incident-to supervision rules and practitioner enrollment rules, which govern how any Part B service is furnished and billed; the Medicare telehealth services list and the statutory telehealth conditions, which apply across Medicare, although 71.9 percent of published submitted 97804 services in 2025 were coded as telehealth; and the program manuals (Pub. 100-02, chapter 15, section 300, and Pub. 100-04), which restate and implement the statute, regulation and determinations , except for three terms that a search of every chapter of both manuals, as published on September 15, 2026, found stated in a manual but not in the statute (42 U.S.C. § 1395x(s)(2)(V), (vv)), the regulations (42 C.F.R. §§ 405.2463, 410.72, 410.130–410.134, 414.64) or National Coverage Determination 180.1, and which are listed in Table 1: Pub. 100-04, chapter 4, sections 300.2 and 300.6, count the first year's three hours by calendar year and bar carrying unused initial hours into the next calendar year, where the regulation sets a 12-month first period only when nutrition therapy is coordinated with initial diabetes self-management training and the determination refers to "the first year a beneficiary receives MNT"; and chapter 19, on Indian Health Services, covers nutrition therapy in the beneficiary's home when the physician's written orders document the need (section 80.7) and bars payment for home services to a dietitian employed by an Indian Health Service hospital (section 100.13.2). Chapter 15, section 300, of Pub. 100-02 concerns diabetes self-management training; the same search found no numbered section of that manual on nutrition therapy. The local coverage determinations, billing articles and claims-processing edits of Medicare's contractors are excluded because the inventory is confined to national instruments. Every citation, quotation and documentary figure was checked against the source that issued it. The captures of the government documents are deposited with the data, with the retrieval dates that its manifests and logs give, apart from fifteen hearing and Congressional Record files that version 1.2 omits. Not every cited

government document was captured: a search of the data record on October 6, 2026, found no capture of the posted comment CMS-2026-2377-2453, of House Report 118-959 or of the Congressional Budget Office estimate of March 13, 2024. The copyrighted works the report cites, including the Institute of Medicine report, are not deposited.

Two other bill series in the current Congress

Two other bill series in the current Congress seek, by statute, changes to limits this report locates in administrative instruments; they are reported here as record only. The Treat and Reduce Obesity Act of 2025 (S. 1973, 119th Congress, introduced June 5, 2025) would add a paragraph to section 1861(ddd) under which intensive behavioral therapy for obesity may be furnished by "a registered dietitian or nutrition professional (as defined in subsection (vv))" on referral from, and in coordination with, a physician or primary care practitioner; that is the practitioner restriction held in National Coverage Determination 210.12.[30] The Expanding Access to Diabetes Self-Management Training Act of 2025 (S. 1925, 119th Congress, introduced June 2, 2025) provides that "[t]he Secretary shall not limit the quantity or duration of educational and training services … if such services are deemed medically necessary"; that reaches the hours of diabetes self-management training held in 42 C.F.R. § 410.141.[31] Bills titled the Treat and Reduce Obesity Act have been introduced 15 times: once in the 112th Congress (2012) and once in each chamber in every Congress from the 113th through the 119th. Bills titled the Expanding Access to Diabetes Self-Management Training Act have been introduced 10 times, once in each chamber in every Congress from the 115th through the 119th (2018 through 2025). None of the 25 has been enacted. The versions differ: the dietitian provision quoted above, with its referral and coordination condition, appears in 13 of the 15 obesity bills, beginning with S. 1184 in the 113th Congress, and the bar on limiting the quantity or duration of training appears only in the two bills of the 119th Congress; the earlier versions wrote numbers of hours into the statute instead. Two earlier bills advanced in committee: H.R. 3842 (118th Congress), in the training series, was ordered reported by the House Committee on Energy and Commerce on December 6, 2023 and received a Congressional Budget Office cost estimate on March 13, 2024, and H.R. 4818 (118th Congress), in the obesity series, was reported, amended, by the House Committee on Ways and Means on December 27, 2024 (H. Rept. 118-959, Part I). As of September 15, 2026, S. 1973 and S. 1925 had each been referred to the Senate Committee on Finance on the day it was introduced, with no later action recorded (US Government Publishing Office bill status files and bill texts, retrieved September 15, 2026). Each of those limits has been the subject of a bill in the current Congress while, as of September 11, 2026, no national coverage analysis of 210.12 had been opened and, as of September 15, 2026, no proposed rule to amend the training hours in 42 C.F.R. § 410.141(c) had been published. That day's search of the Federal Register document database (federalregister.gov, documents published from 1994) for "410.141" in any document, for "self-management training" in proposed rules, and for proposed rules affecting 42 C.F.R. part 410, with the full text of each of the 110 proposed rules returned searched for the section number, found proposed amendments to § 410.141 since its issuance in December 2000 only in 2003 (eligibility) and 2011 (training orders), neither to paragraph (c); a search on the same date of the 51 Unified Agenda editions posted on reginfo.gov, spring 2000 through fall 2025, for "410.141" and for Centers for Medicare & Medicaid Services entries mentioning self-management training found no entry citing the section and none on self-management training other than the rulemaking that issued it.

The 2004 report before Congress

A full-text search of the Government Publishing Office's Congressional Record (daily edition) and Congressional Hearings collections on GovInfo for "medical nutrition therapy," covering items dated January 1, 2004 to September 15, 2026 and run on September 15, 2026, returned 151 Record items and 17 published hearings; none of them records the Department restating or revisiting the 2004 report's assessment before Congress. Apart from the Secretary's 2004 transmittal of the report itself, the Record items were bill introductions, cosponsor additions, the text of bills, amendments and resolutions, and Members' floor and submitted statements, among them a 2007 introductory statement that cited the report. In three of the hearings, officials of the Indian Health Service (2005 and 2011) and the Health Resources and Services Administration (2009) used the term when describing services, without referring to the report; in a fourth, in 2010, a Centers for Disease Control and Prevention witness, asked whether Medicare's benefit should extend to cardiovascular risk factors and pre-diabetes, said she could not speak to her agency's official position. The search index was incomplete for 2025 and 2026: checked against the bills' status records, it returned all 76 Record entries for bill introductions and Senate cosponsor additions dated 2004 through 2024 on bills whose titles carry the term, but four of the eight dated 2025 or 2026.

Beneficiaries and providers in a second CMS product

A second CMS product counts beneficiaries and billing providers as well as services. In Medicare Physician and Other Practitioners by Geography and Service, which summarizes fee-for-service Part B non-institutional claims, 48,410 beneficiaries received initial individual nutrition therapy (code 97802) in an office or other non-facility setting in calendar year 2024, and 1,568 in a facility setting, from 4,365 and 214 rendering providers; group nutrition therapy (code 97804) reached 966 beneficiaries through 210 providers outside facilities and 11 through 6 in facilities (Appendix A gives each year from 2013 to 2024).[58] Beneficiaries are distinct within a setting, but a beneficiary or provider appearing in both settings is counted in each, and the two codes overlap in the same way, so the rows cannot be added: in 2024 between 48,410 and 49,978 distinct beneficiaries received 97802, and at least 4,365 provider identifiers billed it. A rendering provider is a National Provider Identifier, individual or organizational, not a person. CMS excludes "any aggregated records which are derived from 10 or fewer beneficiaries," which removes a provider's record for a code and setting from the product's provider-level file when it covers 10 or fewer beneficiaries, but the national rows are "aggregated based on all Medicare Part B non-institutional claims."[59] In 2024, 3,094 of the 4,365 identifiers in the non-facility row for 97802 do not appear in the provider-level file, so most of the providers counted billed that code for 10 or fewer beneficiaries in that setting. The product's service counts fall within the procedure summary's bounds on allowed services for both codes in every year from 2013 to 2024 and below its submitted services, which is consistent with counting only services that were not denied; the methodology and data dictionary, searched on September 15, 2026, do not say whether denied services are counted, and if they are not, the 97804 beneficiary count leaves out people whose group services were all denied. Because the data exclude institutional claims and Medicare Advantage, these counts are floors on the number of Medicare beneficiaries who received nutrition therapy, the provider identifiers are not a count of practitioners, and like the spending series these counts describe billed use, not demand or access.

Before the benefit took effect, CMS estimated its cost at $20 million in fiscal 2002, rising to $70 million by fiscal 2006, in a table every cell of which is a multiple of $10 million.[62] That estimate is a fiscal-year cost to the program; the series here is calendar-year fee-for-service allowed charges, and the two are not compared.

Robustness checks on the denial comparison

The two codes are not billed by the same mix of practitioners. In 2025, 96.6 percent of 97804 services carried the registered dietitian specialty code, against 62.2 percent of G0109 services; in 2010 the shares were 77.6 and 37.7 percent. Physician specialties, led by family practice, internal medicine and endocrinology, also bill codes 97802, 97803 and 97804 in every year from 2010 through 2025 (ranked by the number of the file's rows for the three codes together). Physician specialty codes here are the 86 codes listed as physician specialties in section 10.8.2 of chapter 26 of the Medicare Claims Processing Manual (revision 12456, effective July 1, 2024), less 20 that are not, or are not known to be, medical or osteopathic specialties: group practice (70), unknown specialty (99), chiropractic (35), optometry (41), podiatry (48), dental (19, C5, E3 to E7, E9 and F1 to F5) and counseling (E1 and E2); Appendix B lists the 66 codes used. By published submitted services, the same three specialties rank highest in every year but 2021, when general practice ranks third, and the unpublished cells leave that order unestablished in 2021 and 2023 to 2025. In 2010 and 2025 respectively, rows with a physician specialty code numbered 1,084 of 2,292 and 1,073 of 3,600 for 97802, 804 of 1,849 and 811 of 3,487 for 97803, and 150 of 384 and 90 of 468 for 97804. They carried at least 20,840 and 20,902 submitted services for 97802 (8.0 and 6.0 percent of the code's published submitted services under all specialty codes, or 7.8 to 10.4 and 5.8 to 8.2 percent across the bounds), at least 10,702 and 13,190 for 97803 (5.6 and 3.4 percent; 5.4 to 8.5 and 3.3 to 5.0) and at least 2,606 and 493 for 97804 (21.6 and 2.8 percent; 19.8 to 27.8 and 2.4 to 7.2). Their denial rates on the published-cell estimator were 89.0 and 99.5 percent for 97802 (66.4 to 93.0 and 72.2 to 99.8 across the bounds), 92.4 and 99.2 percent for 97803 (60.1 to 96.4 and 68.2 to 99.6) and 85.6 and 100.0 percent for 97804 (61.1 to 91.1 and 36.7 to 100.0), so for 97804 in 2025 the unpublished cells leave open whether most of those services were denied. In 2010, 2,038 of the 4,525 rows for the three codes carried a physician specialty code, with at least 34,148 submitted services, 7.4 percent of the three codes' published submitted services under all specialty codes (7.1 to 10.1 percent across the bounds); in 2025, 1,974 of 7,555 rows, with at least 34,585 services, 4.6 percent (4.4 to 6.5 percent). Most of those services were denied: on the published-cell estimator, 89.8 percent in 2010 and 99.4 percent in 2025 (63.8 to 94.0 and 69.7 to 99.7 percent across the bounds), and at least 62 percent in every year from 2010 through 2025 on the lowest rate the file allows, whether unpublished counts are taken as at most 10 or at most 11. Medicare paid $70,444 on those services in 2010 and $8,336 in 2025, in nominal dollars, 1.2 percent and less than 0.1 percent of what it paid for the three codes under all specialty codes in each year. Restricted to dietitian-billed claims, 97804 exceeds G0109 in every year on every estimator, by 8.4 points in 2010 and 56.4 points in 2025 on the published-cell estimator. The gap is therefore not an artifact of which specialties bill each code. It does not follow that it lies in adjudication: the file records billing modifiers, including notices that the biller expected a denial, but not the reason Medicare gave, so it cannot separate how services were adjudicated from how they were billed.

Those modifiers show part of how the denied services were billed. Modifiers GA, GX, GY and GZ signal that the biller expected Medicare to deny the service (in CMS's descriptors, as of the July 2026 Healthcare Common Procedure Coding System file, GA marks a waiver of liability statement issued as required by payer policy, GX a notice of liability issued voluntarily, GY a service statutorily excluded, and GZ a service expected to be denied as not reasonable and necessary; see the Glossary). The share of published denied 97804 services carrying one of them ranged from 17.2 percent in 2014 (14.9 to 19.6 percent across the bounds) to a peak of 41.6 percent in 2017 (35.8 to 45.0 percent), against 0.9 percent in 2024 (0.7 to 1.7 percent) to 6.8 percent in 2014 (6.5 to 7.5 percent) for G0109, and in 2025 the four modifiers were on 26.7 and 36.2 percent of published denied 97802 and 97803 services (24.1 to 29.7 and 33.7 to 38.2 percent across the bounds) against 0.4 percent for G0108 (0.3 to 2.1 percent), so the pattern runs across nutrition therapy, not only the group code (**Table 3**). Without those rows the all-biller gap between 97804 and G0109 remains positive in all 16 years, on the estimator and across the bounds: 12.7 points in 2010 and 51.1 in 2025 on the published-cell estimator, and 4.3 and 37.1 points between the lowest 97804 rate and the highest G0109 rate. Excluding services billed with any of these four modifiers, the dietitian-only gap is positive in every year but 2010, where the bounds include zero (-0.1 points on the published-cell estimator, -3.4 to 10.6 across the bounds); in each of the other 15 years the lowest 97804 rate exceeds the highest G0109 rate, by 4.2 points (2011) to 45.4 points (2025). These are still adjudicated denials, and a biller expecting a service to be denied under a coverage limit is directed to give such a notice (CMS's claims manual states that the beneficiary is liable for nutrition therapy services "denied over the limited number of hours" and that an advance beneficiary notice "should be issued in these situations"; it allows a routine notice wherever a national coverage determination sets a frequency limit, and 180.1 states that it "establishes the duration and frequency limits" of the benefit; *Medicare Claims Processing Manual*, ch. 4, § 300.6 (rev. 11426, May 20, 2022), ch. 30, § 40.2.2 (rev. 4197, January 11, 2019)), so excluding them is a sensitivity check, not a cleaner measure.

Table 3. Share of published denied services carrying modifier GA, GX, GY or GZ, and the 97804 minus G0109 gap with and without those rows, all billers and dietitian-billed, 2010 to 2025, with exact bounds. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, retrieved September 2026.

Panel A. Share of published denied services carrying modifier GA, GX, GY or GZ in either modifier field, percent: published-cell estimator [exact bounds]

Year	97804	G0109	97802	97803	G0108	G0270	G0271
2010	21.9 [16.2, 26.8]	4.8 [4.5, 5.6]	20.2 [17.3, 23.4]	16.9 [14.7, 20.2]	5.4 [4.2, 8.8]	5.7 [2.6, 16.1]	0.0 [0.0, 15.7]
2011	22.7 [18.0, 25.9]	5.3 [5.1, 6.1]	18.5 [16.5, 20.8]	17.5 [16.1, 19.4]	3.0 [2.6, 5.3]	13.7 [7.3, 20.7]	16.2 [6.5, 22.8]
2012	25.0 [19.8, 28.6]	5.0 [4.7, 5.7]	17.9 [16.0, 20.4]	16.4 [15.3, 18.1]	3.3 [2.7, 5.3]	10.0 [5.0, 16.0]	26.8 [11.6, 36.7]
2013	21.6 [17.2, 25.4]	4.8 [4.5, 5.7]	17.9 [16.0, 20.1]	17.8 [16.4, 19.9]	3.6 [3.0, 5.6]	7.1 [4.1, 11.6]	34.7 [14.0, 36.4]
2014	17.2 [14.9, 19.6]	6.8 [6.5, 7.5]	14.1 [13.1, 15.5]	18.4 [17.4, 19.7]	2.8 [2.4, 4.2]	1.6 [1.1, 6.0]	32.0 [13.8, 37.3]
2015	26.1 [21.8, 29.0]	5.4 [5.1, 5.9]	16.6 [15.3, 18.3]	20.0 [18.8, 21.6]	1.9 [1.6, 3.6]	2.6 [2.1, 4.7]	31.6 [17.0, 37.2]

Year	97804	G0109	97802	97803	G0108	G0270	G0271
2016	38.8 [32.7, 41.7]	2.5 [2.3, 3.4]	21.3 [19.6, 23.2]	23.5 [22.1, 24.9]	2.1 [1.8, 3.9]	3.3 [2.7, 6.1]	12.9 [10.1, 17.0]
2017	41.6 [35.8, 45.0]	2.8 [2.6, 3.6]	22.3 [20.5, 24.3]	26.2 [24.6, 27.7]	1.3 [1.1, 3.4]	4.0 [2.9, 7.4]	30.5 [18.8, 35.9]
2018	38.8 [33.3, 42.0]	3.9 [3.6, 4.6]	22.5 [20.8, 24.5]	25.8 [24.4, 27.1]	1.6 [1.4, 3.3]	2.6 [2.0, 5.6]	11.8 [6.2, 28.2]
2019	32.9 [28.1, 36.4]	2.1 [2.0, 2.7]	24.0 [22.2, 25.8]	28.4 [26.7, 29.8]	1.9 [1.6, 3.4]	4.6 [3.6, 7.3]	3.9 [2.0, 11.6]
2020	30.3 [20.6, 39.7]	2.1 [1.6, 3.8]	21.2 [18.2, 25.2]	28.6 [25.4, 32.0]	1.2 [0.8, 4.2]	0.4 [0.3, 3.0]	0.0 [0.0, 5.8]
2021	29.8 [24.1, 36.2]	2.6 [2.0, 4.2]	21.6 [19.3, 24.7]	25.6 [23.6, 27.9]	1.3 [1.0, 4.0]	3.9 [3.2, 7.4]	40.8 [7.1, 64.3]
2022	23.3 [19.7, 28.4]	2.1 [1.8, 3.7]	17.8 [16.1, 20.5]	29.9 [27.1, 32.3]	2.3 [1.8, 4.5]	9.6 [6.4, 17.1]	0.0 [0.0, 27.9]
2023	19.4 [16.8, 25.3]	2.1 [1.8, 3.0]	23.0 [20.7, 26.1]	31.7 [29.1, 33.9]	0.5 [0.4, 1.9]	3.7 [2.5, 11.5]	0.0 [0.0, 6.1]
2024	17.4 [14.9, 23.4]	0.9 [0.7, 1.7]	25.1 [22.6, 28.3]	35.1 [32.4, 37.4]	0.4 [0.3, 1.9]	4.7 [3.1, 11.6]	7.0 [2.7, 15.0]
2025	17.6 [15.4, 23.2]	1.3 [1.1, 2.4]	26.7 [24.1, 29.7]	36.2 [33.7, 38.2]	0.4 [0.3, 2.1]	7.5 [5.4, 13.1]	18.8 [4.9, 41.0]

Panel B. Published denied services, the denominator of panel A (sum of published cells, a floor, rounded down to whole services)

Year	97804	G0109	97802	97803	G0108	G0270	G0271
2010	6,250	68,128	70,333	64,878	43,419	1,606	107
2011	6,540	54,621	73,184	75,254	50,955	1,816	234
2012	7,397	52,128	83,043	97,967	46,594	1,969	257
2013	9,054	51,111	93,933	97,272	50,531	3,195	366
2014	10,904	53,231	128,013	123,015	58,401	3,672	356
2015	10,172	57,639	121,531	123,981	55,548	7,558	455
2016	10,113	42,238	120,407	128,917	53,555	8,813	1,230
2017	10,340	40,395	123,337	130,202	58,941	5,884	709
2018	11,061	39,780	127,595	141,083	64,742	7,840	483
2019	10,878	48,341	133,967	136,918	71,433	8,812	461
2020	5,095	12,397	103,408	117,756	47,618	19,248	162
2021	8,515	13,010	134,209	166,095	54,799	16,583	76
2022	10,579	19,200	167,976	160,103	65,658	7,478	129
2023	12,159	22,416	138,407	168,641	85,604	6,820	309
2024	14,039	20,639	144,602	181,992	83,895	7,305	213
2025	15,474	18,874	151,287	196,387	80,812	9,733	133

Panel C. Denial rate of 97804 minus denial rate of G0109, percentage points: published-cell estimator [exact bounds]

Year	All billers, all rows	All billers, without GA, GX, GY, GZ rows	Dietitian-billed, all rows	Dietitian-billed, without GA, GX, GY, GZ rows
2010	18.4 [8.9, 29.8]	12.7 [4.3, 24.8]	8.4 [3.9, 18.3]	-0.1 [-3.4, 10.6]
2011	23.5 [16.0, 31.7]	18.2 [11.3, 27.1]	15.1 [11.9, 21.2]	6.5 [4.2, 13.1]
2012	24.6 [16.3, 33.0]	18.9 [11.4, 28.2]	18.3 [14.8, 24.3]	10.9 [8.3, 17.0]
2013	34.7 [23.3, 42.1]	31.8 [20.8, 39.7]	24.3 [18.8, 31.7]	15.4 [11.2, 23.9]
2014	30.8 [22.9, 35.7]	28.0 [20.5, 33.1]	16.3 [13.0, 20.5]	9.5 [7.0, 13.5]
2015	29.1 [19.3, 34.9]	25.0 [15.6, 31.7]	22.7 [18.3, 27.1]	12.9 [9.7, 17.8]
2016	35.3 [25.8, 41.2]	27.2 [18.1, 35.0]	28.3 [24.1, 32.3]	16.8 [13.8, 21.7]
2017	38.3 [28.7, 44.2]	29.1 [20.6, 36.8]	31.6 [26.7, 36.2]	19.2 [15.7, 25.0]
2018	37.9 [28.6, 43.9]	28.1 [19.9, 35.7]	36.3 [31.5, 40.8]	25.3 [21.8, 30.7]
2019	34.8 [25.3, 40.6]	26.3 [17.9, 33.3]	36.7 [31.7, 40.7]	28.3 [24.8, 32.5]
2020	46.3 [19.7, 59.0]	39.3 [15.4, 54.3]	37.1 [17.9, 52.2]	26.0 [10.8, 43.8]
2021	53.1 [31.3, 60.5]	48.0 [28.5, 56.4]	47.9 [31.9, 55.0]	41.0 [28.2, 49.0]
2022	47.9 [29.4, 53.5]	44.2 [28.0, 50.2]	44.1 [30.5, 49.0]	40.2 [29.3, 45.3]
2023	46.9 [30.9, 52.7]	43.8 [30.8, 49.7]	45.7 [35.0, 50.4]	42.9 [35.3, 47.3]
2024	51.8 [33.5, 56.7]	49.0 [33.9, 53.9]	55.3 [42.3, 59.0]	52.6 [43.1, 56.2]
2025	53.6 [36.3, 57.9]	51.1 [37.1, 55.4]	56.4 [44.3, 59.7]	53.8 [45.4, 56.9]

Notes: Services are counted as submitted; for 97804 and G0109, both billed per 30 minutes, a service is a unit of time. A row is counted as carrying a modifier when GA, GX, GY or GZ appears in either of the two modifier fields listed in the CMS data dictionary for the procedure summary, the HCPCS initial modifier code and the HCPCS second modifier code; the 2016 file has no blank modifier fields and carries a tilde where the files for other years leave the field blank. In panel A the estimator divides published denied services in rows carrying one of the four modifiers by all published denied services of that code and year; the bounds are the lowest and highest shares of all denied services consistent with the cells too small to publish, treating each unpublished count as at most 10. Codes G0270 and G0271 have small denominators (panel B), and their shares move widely from year to year. In panel C each denial rate is the published-cell estimator, and the bounds run from the lowest 97804 rate minus the highest G0109 rate to the highest 97804 rate minus the lowest G0109 rate. Dietitian-billed means provider specialty code 71, registered dietitian or nutrition professional. On the bounds, the 97804 share exceeds the G0109 share, and the 97802 and 97803 shares each exceed the G0108 share, in every year. Treating each unpublished count as at most 11 instead leaves those comparisons and every sign in panel C unchanged. The rows without the four modifiers are a sensitivity check, not a cleaner measure: the services excluded were still denied, and the file records no reason for denial. The table was produced by code written with the assistance of an AI tool (see How this report was checked).

On the published-cell estimator the gap rose from 34.8 to 53.6 points between 2019 and 2025; the file's bounds allow anything from a 4.4-point narrowing to a 32.7-point widening, so the change over those six years is not established on the bounds, although the change since 2010 is (at least 6.4 points). What the estimator shows of the recent rise sits in claims coded as telehealth, most of them in one contractor's jurisdiction. On the published cells, 97804 services billed with a telehealth place of service or modifier carried 71.9 percent of submitted and 77.7 percent of denied services in 2025 and were denied at 93.6 percent (83.2 to 95.1 percent across the bounds), against 68.7 percent (53.2 to 77.1 percent) for other 97804 services and 66.1 percent for all 97804 services in 2019, when no published row was so coded (**Table 4**); among services not so coded, the gap with G0109 was 34.8 points in 2019 and 35.2 in 2025 (25.3 to 40.6 and 16.4 to 44.7 points across the bounds). From 2021 a growing share of group nutrition therapy services was processed under one carrier number, 01112, which CMS's physician fee schedule locality files and contractor jurisdiction pages (retrieved September 2026) place in Part A and Part B Medicare Administrative Contractor Jurisdiction E in each year from 2020 to 2025, and for which the file records no reason for denial: 23.8 percent of published submitted services in 2021 and 52.3 percent in 2025, of which 93.6 and 98.5 percent were denied (**Table 5**). In 2025 one published cell of that contractor, dietitian-billed services with place of service 02 and modifier 95 in a single pricing locality, carried 8,862 submitted services, all denied: 94.8 percent of that contractor's published 97804 services and 57.3 percent of that year's published denied 97804 services. The file does not identify billing practitioners or organizations and cannot show whether this cell reflects one biller or many. Excluding that contractor, the 97804 rate in 2025 is 73.5 percent on the published-cell estimator (54.6 to 81.9 percent across the bounds), and, with it excluded from both codes, the gap with G0109 remains positive in every year, 33.4 points in 2019 and 40.1 in 2025 on that estimator, and 24.4 and 16.7 points between the lowest 97804 rate and the highest G0109 rate. The level of the gap does not depend on that contractor or on telehealth coding. The widening the estimator shows since 2019 does, and among dietitian-billed services it survives the bounds only with that contractor included. The file records no reason for denial, and none is attributed here.

From 2021, the high telehealth-coded denial rate is specific to 97804: in each year from 2021 to 2025 the lowest telehealth-coded 97804 rate consistent with the file exceeds the highest rate for every other code, and in 2020 it was the highest on the published-cell estimator but not on the bounds. In 2025, telehealth-coded services were denied at 30.2 percent for G0109 (27.5 to 41.5 percent across the bounds), 31.3 percent for G0108 (23.5 to 53.6), 44.9 percent for 97802 (40.3 to 52.5) and 56.5 percent for 97803 (52.4 to 60.7) on the published-cell estimator (**Table 4**). The 97804 pattern also predates the lapse of Medicare's temporary telehealth flexibilities in October 2025 (the statutory period for those flexibilities ended on September 30, 2025, Pub. L. No. 119-4, § 2207, 139 Stat. 9, 43–44 (2025); see 90 Fed. Reg. 49,266, 49,701 (Nov. 5, 2025); laws enacted on November 12, 2025 and February 3, 2026, later extended that period to January 30, 2026 and then to December 31, 2027, Pub. L. No. 119-37, § 6208, 139 Stat. 495, 632–33 (2025); Pub. L. No. 119-75, § 6209, 140 Stat. 173, 648–50 (2026)): the telehealth-coded 97804 rate was 72.9 percent in 2020 (42.9 to 87.1), 82.9 in 2021 (68.0 to 87.8), 88.5 in 2022 (76.1 to 91.2), 91.2 in 2023 (80.3 to 93.0) and 94.3 in 2024 (80.6 to 95.6). Because the file is built on a simulated 18-month window whose dates CMS does not state, a 2025 denial reversed on appeal or reopening after that window closed would still appear here as a denial.

Table 4. Denial rates for services coded and not coded as telehealth, seven codes, 2020 to 2025, published-cell estimator with exact bounds and published submitted services. Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, retrieved September 2026.

Code	Year	Coded as telehealth: published submitted services	Coded as telehealth: denial rate, percent (bounds)	Not coded as telehealth: published submitted services	Not coded as telehealth: denial rate, percent (bounds)
97802	2020	66,672	36.9 (32.7 to 46.0)	209,696	37.6 (35.7 to 41.3)
97802	2021	82,270	42.1 (38.4 to 48.8)	247,138	40.3 (38.5 to 43.3)
97802	2022	77,933	47.4 (42.4 to 54.9)	279,441	46.9 (45.1 to 49.3)
97802	2023	67,417	41.7 (37.3 to 49.9)	264,428	41.7 (40.0 to 44.4)
97802	2024	75,131	42.1 (37.5 to 50.4)	266,593	42.4 (40.8 to 44.9)
97802	2025	82,179	44.9 (40.3 to 52.5)	264,971	43.2 (41.5 to 45.7)
97803	2020	90,442	48.1 (43.9 to 54.2)	207,262	35.8 (34.2 to 39.2)
97803	2021	120,288	54.4 (51.0 to 58.3)	235,036	42.8 (41.2 to 45.3)
97803	2022	100,924	52.0 (47.5 to 57.7)	239,707	44.9 (43.2 to 47.4)
97803	2023	99,487	53.5 (49.0 to 58.6)	246,348	46.9 (45.1 to 49.2)
97803	2024	115,787	53.3 (49.0 to 58.1)	251,563	47.8 (46.1 to 50.1)
97803	2025	130,965	56.5 (52.4 to 60.7)	253,333	48.3 (46.7 to 50.3)

Code	Year	Coded as telehealth: published submitted services	Coded as telehealth: denial rate, percent (bounds)	Not coded as telehealth: published submitted services	Not coded as telehealth: denial rate, percent (bounds)
97804	2020	1,520	72.9 (42.9 to 87.1)	5,748	69.4 (52.8 to 79.9)
97804	2021	5,442	82.9 (68.0 to 87.8)	5,242	76.3 (60.3 to 83.4)
97804	2022	7,059	88.5 (76.1 to 91.2)	5,768	75.1 (60.8 to 81.2)
97804	2023	8,382	91.2 (80.3 to 93.0)	6,721	67.1 (55.2 to 75.6)
97804	2024	10,542	94.3 (80.6 to 95.6)	6,033	67.8 (54.8 to 76.2)
97804	2025	12,845	93.6 (83.2 to 95.1)	5,029	68.7 (53.2 to 77.1)
G0270	2020	18,609	4.6 (4.3 to 15.2)	79,562	23.1 (22.7 to 25.2)
G0270	2021	20,407	7.3 (6.9 to 17.3)	72,818	20.7 (20.3 to 22.9)
G0270	2022	18,536	7.2 (6.7 to 19.0)	52,746	11.7 (11.3 to 15.0)
G0270	2023	20,275	9.5 (9.0 to 18.9)	45,528	10.8 (10.5 to 14.2)
G0270	2024	28,541	5.9 (5.6 to 14.9)	57,349	9.8 (9.6 to 12.5)
G0270	2025	37,968	11.0 (10.6 to 17.6)	59,874	9.3 (9.1 to 12.0)
G0271	2020	353	19.3 (15.0 to 41.5)	337	27.9 (17.8 to 61.5)
G0271	2021	468	4.1 (3.3 to 27.5)	91	62.6 (16.7 to 95.9)
G0271	2022	767	16.8 (14.2 to 34.1)	60	0.0 (0.0 to 90.2)
G0271	2023	685	38.2 (31.4 to 50.5)	186	25.3 (10.5 to 77.8)
G0271	2024	684	24.3 (21.7 to 33.5)	252	18.7 (9.6 to 64.4)
G0271	2025	379	32.2 (26.0 to 45.2)	320	3.4 (1.9 to 59.5)
G0108	2020	34,796	17.9 (14.4 to 38.5)	152,005	27.2 (25.5 to 33.3)
G0108	2021	33,855	16.1 (13.6 to 33.7)	175,310	28.1 (26.8 to 32.7)
G0108	2022	28,524	27.2 (22.3 to 44.8)	189,794	30.5 (29.0 to 35.0)
G0108	2023	20,655	28.8 (22.6 to 48.5)	201,429	39.5 (37.8 to 42.9)
G0108	2024	21,489	39.4 (30.6 to 57.5)	176,012	42.9 (40.9 to 46.0)
G0108	2025	19,519	31.3 (23.5 to 53.6)	171,979	43.4 (41.2 to 47.1)
G0109	2020	5,003	23.1 (19.8 to 42.7)	47,036	23.9 (23.0 to 29.1)
G0109	2021	12,767	23.7 (21.7 to 34.5)	36,200	27.6 (26.4 to 32.3)
G0109	2022	13,455	31.7 (29.2 to 41.2)	42,153	35.4 (34.3 to 39.0)
G0109	2023	11,058	35.7 (32.3 to 45.3)	55,557	33.2 (32.3 to 36.3)
G0109	2024	10,661	40.0 (36.0 to 50.5)	52,101	31.4 (30.6 to 34.4)
G0109	2025	8,826	30.2 (27.5 to 41.5)	48,443	33.5 (32.4 to 36.9)

Notes. Coded as telehealth: place of service 02 or 10, or modifier 95 or GT in either modifier position. Published submitted services are sums over published cells, rounded down, and are floors. Denial rates use the published-cell estimator; the bounds in parentheses are the lowest and highest rates consistent with the unpublished cells, treating each unpublished count as at most 10. Counts are services as submitted, not sessions or beneficiaries, on fee-for-service Part B carrier claims. The file records no reason for denial.

Table 5. Carrier 01112's share of published submitted and denied 97804 services, its denial rate, and the telehealth-coded share of 97804 services, 2020 to 2025.

Year	Carrier 01112: share of published submitted 97804 services, percent (bounds)	Carrier 01112: share of published denied 97804 services, percent (bounds)	Carrier 01112: 97804 denial rate, percent (bounds)	Coded as telehealth: share of published submitted 97804 services, percent (bounds)	Coded as telehealth: share of published denied 97804 services, percent (bounds)
2020	6.0 (4.3 to 7.9)	5.6 (3.5 to 9.0)	66.1 (49.1 to 81.6)	20.9 (16.7 to 31.0)	21.7 (15.5 to 36.1)
2021	23.8 (19.5 to 25.4)	28.0 (21.5 to 30.1)	93.6 (86.2 to 95.6)	50.9 (45.1 to 55.9)	53.0 (44.9 to 59.3)
2022	33.5 (28.3 to 34.3)	39.1 (31.7 to 40.3)	96.2 (92.7 to 97.4)	55.0 (49.8 to 58.7)	59.1 (51.9 to 63.4)
2023	39.1 (33.8 to 39.9)	47.1 (38.7 to 48.0)	97.0 (94.0 to 97.4)	55.5 (50.6 to 58.6)	62.9 (55.3 to 66.3)
2024	49.6 (41.8 to 50.0)	57.4 (46.5 to 57.9)	98.1 (96.3 to 98.2)	63.6 (58.5 to 67.2)	70.8 (63.6 to 74.2)
2025	52.3 (44.9 to 52.6)	59.6 (49.5 to 59.9)	98.5 (97.3 to 98.8)	71.9 (66.4 to 74.2)	77.7 (70.6 to 79.9)

Notes. Coded as telehealth: place of service 02 or 10, or modifier 95 or GT in either modifier position. Shares and rates use published cells; the bounds in parentheses treat each unpublished count as at most 10, placing the unpublished cells of the group at their highest and all others at zero, and the reverse. A carrier number identifies the Medicare contractor jurisdiction that processed a claim, not a billing practitioner or organization, and the file records no reason for denial, for this contractor or any other. Place of service 10, telehealth provided in the patient's home, took effect on January 1, 2022 and became available to Medicare on April 1, 2022, when place of service 02 was redefined as telehealth provided other than in the patient's home, so the telehealth-coded shares are not strictly comparable across years. The 2021 file nonetheless carries 6 rows with place of service 10, in codes other than 97804. Of published telehealth-coded 97804 services, 80.3 percent in 2020 (66.4 to 86.8) and 50.0 percent in 2021 (46.9 to 56.7) carried a telehealth modifier without a telehealth place of service, against 7.1 percent in 2024 (6.3 to 11.0) and 2.6 percent in 2025 (2.3 to 4.6). Source: tabulation for this report of the CMS Physician/Supplier Procedure Summary, retrieved September 2026.

The fee arithmetic

Separating the two terms shows which one moved. Over 2019 to 2025, the window the code-mix comparison above uses, total relative value units for 97802 in the non-facility setting, meaning work plus practice expense plus malpractice values rather than work values alone, rose 4.8 percent, from 1.05 to 1.10, while the conversion factor fell 10.2 percent, from $36.0391 to $32.3465. The national schedule amount for that code in that setting fell from $37.84 to $35.58, a nominal fall of $2.26 that divides into $1.71 added by relative values and $3.97 taken by the factor, and it fell 25.3 percent in constant 2025 dollars. The other two codes moved the same way in the non-facility setting: relative values rose 5.5 percent for 97803 and 6.2 percent for 97804 while their schedule amounts fell 24.8 and 24.3 percent in constant 2025 dollars. Facility amounts are a separate schedule and are not compared with non-facility amounts here; on the same basis they fell 28.0, 28.7 and 27.1 percent. Over the longer window, 2010 to 2026, relative values rose enough to carry the non-facility schedule amount for 97802 from $29.60 to $36.74 in nominal terms, but consumer prices rose 52.1 percent over those years, so that amount fell 18.4 percent in constant 2025 dollars: of a fall of $8.04 per service, relative values added $12.45, the conversion factor took $3.63 and general inflation took $16.85. Three quantities stay distinct throughout: the schedule amount, 85 percent of it, which is the statutory basis for this benefit, and what Medicare pays of that 85 percent, which was 80 percent in 2010 and has been 100 percent since 2011, when the deductible and coinsurance for these codes were waived.[98] On that last measure the payment for 97802 in the non-facility setting was $20.13 in 2010 and $31.23 in 2026. The 2026 relative values differ by setting: non-facility totals for 97802, 97803 and 97804 are 1.10, 0.95, 0.51 against 1.10, 0.96, 0.51 in 2025, while their facility totals are 0.79, 0.66, 0.37 against 0.97, 0.82, 0.46, because CMS halved the share of facility practice expense values allocated on work values beginning with calendar year 2026; the 2.5 percent efficiency adjustment finalized in the same rule reaches the work values of services that are not time based, and the work values of these codes, which are billed in 15 and 30 minute units, are unchanged at 0.53, 0.45 and 0.25.[99] Measured at the 2019 and 2025 code mixes, the way the claims price series is measured, the schedule amounts fell 25.0 percent in constant 2025 dollars in the non-facility setting and 28.4 percent in the facility setting, against 25.3 percent for the Fisher price index of the allowed charge per allowed service in the claims record on its published cells, so the fall in the record is consistent with the change in the schedule amounts themselves. Appendix A gives every year, both settings and all three amounts. The update can be changed only by an act of Congress, as can the covered conditions, subject for them to the two authorities described under Covered conditions are set in statute; the agency's levers are the relative values, which it may revise in annual rulemaking subject to budget neutrality, and the budget-neutrality adjustment itself, which offsets changes in relative values rather than responding to inflation.

The annual payment rule is itself an instrument

In July 2026 CMS proposed, in its physician fee schedule rule for 2027, that group nutrition therapy a dietitian furnishes during a shared medical appointment be treated as part of that appointment, which a physician or qualified nonphysician practitioner bills and leads, rather than billed separately; in the same rule it proposed that rural health clinics be paid for medical nutrition therapy and diabetes self-management training as stand-alone visits. Comments closed on September 14, 2026.[100] The author filed a public comment on this provision; see Disclosures. As of September 29, 2026, no final rule had issued: a search of the Federal Register that day found no final physician fee schedule rule for 2027. A dated addendum to this report will record the final rule when it issues. If finalized, the pair would show the claims record measured here being shaped by payment policy: a rule issued on an annual cycle can remove a service from that record in one setting and, in another, pay for it through a clinic visit rate that falls outside the carrier claims the procedure summary covers.[101]

Notes

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10. Institute of Medicine, *Role of Nutrition*, 311.

11. Institute of Medicine, *Role of Nutrition*, 311.

12. Institute of Medicine, *Role of Nutrition*, 312–13.

13. Centers for Medicare & Medicaid Services; Statement of Organization, Functions and Delegations of Authority; Reorganization Order, 66 Fed. Reg. 35,437 (July 5, 2001).

14. Institute of Medicine, *Role of Nutrition*, 313, 315.

15. Institute of Medicine, *Role of Nutrition*, 313.

16. Institute of Medicine, *Role of Nutrition*, 321, 304–05.

17. Benefits Improvement and Protection Act § 105(a)–(b), 114 Stat. at 2763A-471 to 2763A-472; 42 U.S.C. § 1395x(vv)(1) (2024).

18. 42 U.S.C. § 1395x(s)(2)(V)(iii) (2024).

19. 42 U.S.C. § 1395x(vv)(1)–(3) (2024).

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27. US Government Publishing Office, "Congressional Bills," GovInfo, texts of the 23 bills shown in **Figure 1**, https://www.govinfo.gov/app/collection/bills (last visited September 11, 2026); US Government Publishing Office, "Bill Status," GovInfo bulk data, records for the eight bills of the 116th through 119th Congresses, https://www.govinfo.gov/bulkdata/BILLSTATUS (last visited September 11, 2026).

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39. Final Coverage Decision Memorandum (CAG-00423N).

40. Coverage Decision Memorandum (CAG-00424N).

41. *Medicare National Coverage Determinations Manual*, §§ 210.11, 210.12; Ctrs. for Medicare & Medicaid Servs., Medicare Coverage Database, national coverage analyses CAG-00423N and CAG-00424N and the National Coverage Analysis status report, https://www.cms.gov/medicare-coverage-database/ (last visited September 11, 2026).

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Report 4

Coverage and comparability of federal wage estimates for the health workforce: OEWS and the American Community Survey across 37 occupations

The Dietetics Workforce Reports, Report 4, version 1.1 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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In brief

What it asks. Does the federal employer wage survey, which leaves out people who work for themselves, give a biased picture of what health workers earn?

What it finds. Mostly no. Adding back the unincorporated self-employed changed average total earnings by less than 2 percent either way, across the whole 95 percent confidence interval, in 27 of 37 health occupations, dietitians included; if owners of incorporated practices are also counted as left out, it did so in 18 of 37.

What it adds. Earlier studies showed the two federal wage sources disagree, but not how much of that the missing self-employed explain. The dietitian-to-physical-therapist pay ratio rests on this survey.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every number in the text was tied to an independent recomputation, a recorded output of the deposited code, or a stated reason, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 2,578 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Key findings

- **Coverage.** In the 2024 American Community Survey (ACS), the unincorporated self-employed, whom the Occupational Employment and Wage Statistics (OEWS) survey does not cover, were a median 1.4% of civilian employment across 37 health occupations. Adding them changed mean total earnings by less than 2% across the whole 95% confidence interval in 27 of 37 occupations, 18 of 37 if owners of incorporated practices are also treated as outside OEWS. The 2% margin was chosen after the estimates were computed, and the result takes self-employment income as reported; Table 4 shows it under underreporting.
- **Dietitians and nutritionists.** The excluded group was 6.4% (SE 0.8) of civilian employment. Adding it changed mean total earnings by −0.1% (SE 0.8) and the mean on the OEWS hourly-based income concept by +3.6% (SE 1.2), a change that did not survive adjustment for multiple comparisons when self-employment income is taken as reported, but did when it was scaled for underreporting of 10% or more (Table 4).
- **Which statistic compares better.** In the ACS 2024 file, ratios of medians between occupations agreed with OEWS more closely than ratios of means in 430 of 666 occupation pairs (64.6%; permutation $p = .008$; bootstrap 95% CI [52.2%, 75.6%]). The edge was weaker among the 16 occupations outside the preliminary run (57.5%, $p = .27$) and was not confirmed in a replication on the ACS 2023 file specified before those data were read (52.1%, $p = .37$; Table 8).
- **Levels.** ACS 2024 medians averaged 19.7% below OEWS May 2025 medians and were lower in 36 of 37 occupations. About half of that shortfall (0.49, bootstrap 95% CI 0.40 to 0.57) was removed on an hourly basis, and the two surveys should not be mixed for a wage level (Table 5 sets both OEWS vintages side by side).

Plain-language summary

Two federal surveys report what health workers earn. The Bureau of Labor Statistics asks employers what they pay; its survey leaves out people who work for themselves in businesses they have not incorporated, such as a dietitian in an unincorporated solo practice. The Census Bureau's American Community Survey asks households, and includes them.

For 37 health occupations, this report asks two questions. First, does leaving those workers out change the employer survey's picture of earnings much? For most occupations, dietitians included, it does not: in 2024, adding them moved average earnings by less than 2 percent. That answer assumes people report self-employment income accurately, and research finds they often do not. Second, which statistic travels better between the surveys when comparing one occupation's pay with another's? Medians did better in 2024, in about two of every three pairs of occupations, but a check on the 2023 survey, planned in advance, did not confirm it. Both will be tested again on the 2025 survey, under a plan written before those data were seen.

The one sentence to repeat: for most health occupations, dietitians included, leaving out the self-employed barely moves the federal wage, but the two surveys differ by about a fifth at the median, so name your source.

Abstract

Background. The federal employer wage survey, Occupational Employment and Wage Statistics (OEWS), does not cover owners and partners of unincorporated firms; the household American Community Survey (ACS) includes them. Earlier studies showed that the sources disagree about health workers' wages, not how much of that the exclusion explains or which statistic compares better.

Objective. To measure, for 37 health occupations, how far the exclusion moves OEWS-comparable earnings, and whether the mean or the median compares better across the two surveys.

Methods. ACS 2024 one-year microdata aligned to the OEWS universe and compared with OEWS May 2025 national estimates, with replicate-weight standard errors, multiplicity adjustment, an underreporting sensitivity analysis, occupation-level permutation tests and a replication on the ACS 2023 file specified before those data were read.

Results. The excluded group was a median 1.4% of civilian employment. Adding it changed mean total earnings by less than 2% across the whole 95% confidence interval in 27 of 37 occupations (18 of 37 if owners of incorporated practices are also treated as outside OEWS), a margin chosen after the estimates; for dietitians and nutritionists the change was −0.1% (SE 0.8). Ratios of medians agreed with OEWS more closely than ratios of means in 430 of 666 occupation pairs (64.6%; permutation $p = .008$; bootstrap 95% CI [52.2%, 75.6%]), an advantage weaker in the 16 occupations outside the preliminary run and not confirmed in the pre-stated replication (52.1%, $p = .37$). ACS medians averaged 19.7% below OEWS medians.

Conclusions. On this report's reading of OEWS coverage, and with self-employment income as reported, the exclusion barely moves OEWS earnings for most health occupations, dietitians included; the median's edge for ratios is not established beyond the 2024 file. Both questions are set out in a timestamped plan for retest on the ACS 2025 file.

Keywords: health workforce data; occupational wage estimates; wage measurement; Occupational Employment and Wage Statistics; American Community Survey; self-employment

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida. Dietitians and nutritionists are one of the 37 occupations analyzed and one of the two examined in detail, so he is a member of a profession whose wages are analyzed. He owns Vitae Arete LLC, which publishes this report series and offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He receives self-employment income through the company. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce, including on dietitian pay relative to other health professions such as physical therapists, and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. This report's results for the dietitian and physical therapist pair bear on the OEWS figures used in that commentary and that proposal; the pair was examined because the question began there (Results, One pair in detail). In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; the findings reported here do not bear on those proposals. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE)

2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this report (see How this report was checked). He is credentialed by the Commission on Dietetic Registration, which this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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Introduction

This report asks whether the federal employer wage survey, which leaves out people who work for themselves in unincorporated businesses, gives a biased picture of what health workers earn, and whether the mean or the median compares better between that survey and the Census Bureau's household survey. Earlier studies showed that the two sources disagree about wages; a search of four sources on September 11, 2026, did not locate a published estimate, across health occupations and with standard errors and multiplicity control, of how much the exclusion moves the wages the employer survey can see (New contribution). The dietitian-to-physical-therapist pay ratio that prompted the question rests on the employer survey.

Occupational wage estimates inform health workforce planning and evaluations of workforce policy (e.g., Tyler et al., 2024). Two federal surveys supply them. The Occupational Employment and Wage Statistics (OEWS) survey collects wages from employers; "self-employed workers, owners and partners in unincorporated firms, employees of private households, and unpaid family workers are not covered by the OEWS survey" (U.S. Bureau of Labor Statistics [BLS], 2025a). The American Community Survey (ACS) is a household survey that records the class of worker of every employed respondent and therefore includes the self-employed. The same Handbook paragraph covers "salaried officers, executives, and staff members of incorporated firms" (BLS, 2025a). The technical note pairs the same two statements: it counts "salaried officers, executives, and staff members of incorporated firms" as employees, and says the survey "does not include the self-employed, owners and partners in unincorporated firms, household workers, or unpaid family workers" (BLS, 2026b). Neither document says in so many words where the owner of an incorporated practice falls. This report treats owners and partners in unincorporated firms as outside OEWS and the incorporated self-employed as inside it, as salaried officers of incorporated firms (Methods). The frequently asked questions point the same way: they send readers who want occupational estimates "that include the self-employed" to the Employment Projections program (BLS, 2026c), whose National Employment Matrix "only includes the unincorporated self-employed" in its self-employment measure (BLS, n.d.). The coverage result depends on this reading (Limitations).

The two sources are often used together, because the ACS carries demographic detail that OEWS does not (Skillman et al., 2016); their joint use raises two questions. The first is whether OEWS wages differ materially from the earnings of all workers in an occupation, including the unincorporated self-employed, that is, whether the exclusion biases OEWS as an estimate of that broader quantity. The second is whether the mean or the median is the more comparable statistic for comparing wages across occupations.

The question began with one ratio. In the OEWS May 2025 national estimates, the mean annual wage was $77,130 for dietitians and nutritionists and $105,280 for physical therapists, a ratio of 73.3% (BLS, 2026a; the Introduction to this series); May 2025 was still the latest OEWS release when checked on September 29, 2026. A ratio like this is easy to read as covering both whole professions, including practitioners who work for themselves. OEWS covers incorporated practices, including their salaried officers, but not owners and partners in unincorporated practices, so whether that difference in coverage moves the ratio is an empirical question. The pair serves here as an example; the analysis covers 37 occupations.

Box 1 in Appendix E sets out what OEWS measures and how it differs from the ACS.

Research questions and hypotheses. The first question is descriptive: the 2 percent margin used to read it was set after the estimates were computed, so it is a reading aid, not a hypothesis. For the second, the hypothesis that medians compare better than means for ratios between occupations was formed on the 2024 data and then stated in advance for a replication on the 2023 data, which did not confirm it. Both will be tested again, as stated hypotheses, on the ACS 2025 one-year file. The plan fixes the 2 percent margin, the pass criteria and the 37 occupations; it was written and hashed on September 29, 2026, before any 2025 ACS data were read (Data availability).

New contribution

Dahal et al. (2021) and Skillman et al. (2016) compared ACS and OEWS supply estimates for nine allied health occupations; for earnings, Skillman et al. found the OEWS mean "almost always higher" than the ACS and Current Population Survey means and concluded that earnings "are a challenge to compare across datasets." That work established that the sources disagree about wage levels, not how much of the disagreement the establishment survey's coverage explains or which statistic carries across the sources. Related work on how federal sources differ in counts and processing is summarized in Appendix F.

This report answers both for 37 health occupations. First, it measures, for each occupation, how far adding the group the establishment survey does not observe moves the measured wage; the size of that group is published (BLS, 2026d). Nasseh and Vujicic (2018), using the 2001 to 2015 ACS, estimated regression-adjusted median earnings gaps between self-employed workers and private-sector employees in seven health professions; because their self-employed group combines the incorporated self-employed, whom OEWS covers, with the unincorporated, and a gap at the median does not translate directly into a change in a mean, those gaps bear on the effect for those professions but do not measure it. A search of PubMed, OpenAlex, IDEAS/RePEc (through a domain-restricted web search) and the BLS Monthly Labor Review archive on September 11, 2026, together with

Congressional Research Service report R47381, read in full on September 15, 2026, and with the search strings deposited with the data, did not locate a published estimate of the exclusion's effect on OEWS-comparable wages across a broader set of health occupations, including support occupations, with standard errors and multiplicity control. Second, it tests whether medians or means are more comparable between the sources, with inference that treats occupations rather than pairs as the independent units, and finds that the median's advantage was concentrated in the upper tail of the wage distribution. Third, it shows that the level disagreement, which earlier work reported for means, is at the median largely a proportional shift common to occupations, which mostly, not wholly, cancels in a ratio; at the mean it is not.

Methods

Design. The study is a descriptive cross-source comparison with inferential tests and sensitivity analyses.

Data. Person records came from the ACS 2024 one-year Public Use Microdata Sample flat file (3,422,888 records, 80 replicate weights, allocation flags; U.S. Census Bureau, 2025a); published wages and employment from the OEWS May 2025 national estimates (BLS, 2026a), the current release, with every comparability measure also run against the OEWS May 2024 national estimates, whose reference date sits closer to the ACS 2024 income period (BLS, 2025b; released April 2, 2025; file oesm24nat.zip, 282,052 bytes, SHA-256 5fa368aa034ca784f0a4f67f0f1bac67072c5a07992ac3e3de92db10a2821043, retrieved September 15, 2026, from byte-identical Internet Archive captures of the BLS file made on April 3 and December 20, 2025, because the BLS site returned an access error to scripted requests); and the occupation match from the Census 2018 occupation code list and crosswalk (U.S. Census Bureau, 2019). State top-code replacement values came from the Census Bureau's 2024 PUMS top- and bottom-coded values file (U.S. Census Bureau, 2025c). An out-of-sample replication used the ACS 2023 one-year PUMS person file (U.S. Census Bureau, 2024b; file csv_pus.zip, 597,292,173 bytes, Last-Modified September 10, 2024, SHA-256 98b6ecb14b4830d1f2b54c265a5bd997828415c2dab14e17369c40e98b78d9d4, retrieved September 15, 2026; 3,405,809 records, read with the 2023 PUMS data dictionary dated October 17, 2024).

Occupation set. Occupations were included under four rules: the ACS occupation code is in the healthcare practitioner and technical or the healthcare support group; it maps one-to-one to a Standard Occupational Classification (SOC) code; that code is a detailed OEWS occupation with a published mean and median; and at least 300 civilian employed records were available. Of 56 health occupation codes, 43 met the first three rules and 37 met all four (Table S2). The 37 occupations hold 73.1% of weighted civilian employment across the 56 codes. The 2024 PUMS pools two 2018 codes (3245, 3258; Table 1 note); results without them are in Table 2. The median hypothesis arose from the dietitian and physical therapist pair, the study's initial analysis, and was first tested on 25 practitioner occupations chosen under a one-to-one mapping rule applied incompletely (21 are in the present set) with a 50-record floor; that run favored the median more strongly (73% of pairs). It also kept Armed Forces respondents and measured discrepancies in percentage points rather than logs, and its archived output includes a test that treats pairs as independent, which is not reportable and is not reported; the run is deposited so a reader can see what changed (Appendix D). The four rules were set after the preliminary run and before the comparison was run on the set they define (the rules file is in the data deposit; the timeline is in Appendix D).

Universes. OEWS covers salaried officers of incorporated firms, taken here to include the incorporated self-employed, and excludes the military (BLS, 2025a), so the establishment-comparable universe was civilian employed respondents in classes of worker 1 through 5 and 7 with positive wage and salary income, and the excluded group was class of worker 6, the unincorporated self-employed. Employees of private households, whom OEWS also does not cover, remained in this universe (Table 1 note). The excluded group was not filtered on wage and salary income, because the unincorporated self-employed are paid mainly through self-employment income and a positive-wage filter would drop most of them (on the 37-occupation basis used here, 84.2% of class-of-worker-6 records had zero wage and salary income, unweighted, and 85.1% weighted, 2024 ACS one-year PUMS).

Income concepts. The unincorporated self-employed are paid largely through self-employment income, so coverage was tested on total earnings, the sum of wage and salary income and self-employment income, and, because OEWS annual wages "assume a full-time, year-round schedule of 2,080 hours" (BLS, 2026c), on earnings per hour worked multiplied by 2,080, hereafter the OEWS income concept. OEWS wages exclude "overtime pay, severance pay, shift differentials, nonproduction bonuses" and other components (BLS, 2026b), whereas the ACS asks for "wages, salary, commissions, bonuses, or tips from all jobs" without separating premium pay (U.S. Census Bureau, 2024a).

Estimates. Means were weighted. Medians and other quantiles were weighted and interpolated across the wage value containing the quantile, because household-reported wages cluster on round amounts (Table 3 note). Estimates included wages allocated (imputed) by the Census Bureau; reported-wage estimates are a sensitivity, because excluding allocated values is unbiased only if wages are missing at random conditional on observed characteristics (Bollinger & Hirsch, 2006), which record-linkage evidence does not support for earnings (Bollinger et al., 2019). Standard errors used successive-difference replication with the 80 replicate weights, computed on the replicates of each difference or ratio (pair percentiles: Woodruff, 1952); they exclude imputation error and are a lower bound (U.S. Census Bureau, 2025b, p. 12). In this report every contrast involving a median also carries a Woodruff (1952) standard error (replicate-linearized, with a bandwidth of 0.05 (0.10 as a sensitivity), for a median, a ratio of medians or a median against a fixed OEWS value; a change in a median from adding or removing a group is tested instead as the change in the weighted share of wages at or below the original median, with its replicate standard error, because the interpolated change moves at the density of the heaped wage value holding the median while the linearized standard error uses the density across the bandwidth; a design-based bootstrap over primary sampling units was not feasible, because neither the 2024 PUMS data dictionary nor the 286 columns of the person file, searched on September 15, 2026, contain a primary sampling unit, stratum or cluster identifier), because replicate estimates of a quantile that falls on a heaped wage value stay within that value (Table 3 note). OEWS estimates were treated as fixed; OEWS publishes no standard error for its median, so the decomposition below nets out ACS sampling variance only (Table 2 note). The Census income adjustment factor (1.01525) was applied; it cancels in ratios between ACS estimates but not in ACS-to-OEWS levels.

Coverage test. For each occupation, the excluded group's share was computed among civilian employed respondents in classes of worker 1 through 7, together with the change in mean total earnings from adding its members with positive total earnings to the establishment universe, both groups valued at total earnings. Tests were adjusted by the Holm and Benjamini-Hochberg procedures within each family of 37 (total earnings at the mean; the OEWS income concept at the mean and at the median). Changes are summarized against descriptive cut points of 2% and 5% of the mean, chosen after the estimates were computed; no equivalence margin was pre-specified. Two one-sided tests of equivalence at those two margins are reported as descriptive results for the same reason. Because the self-employed underreport income to household surveys (Hurst et al., 2014), the change was recomputed with the excluded group's self-employment income scaled up to offset underreporting of 10%, 20%, 25% and 30% (Table 4). The correlation between the excluded share and the relative earnings gap was also estimated allowing for the sampling error in each occupation's gap (simulation-extrapolation applied to Spearman's ρ, following Cook & Stefanski, 1994: simulated error in multiples of each occupation's replicate-weight sampling variances of the share and the gap, and their covariance, was added and ρ was extrapolated back to zero error with quadratic and linear curves, assuming approximately normal sampling errors that are independent across occupations; 95% CIs are percentile bootstraps over the 37 occupations (2,000 resamples); as a cross-check, the gap was regressed on the share in a random-effects meta-regression that weighted each occupation by the inverse of its sampling variance plus the between-occupation variance).

Comparability test. For occupations a and b, the discrepancy between the ACS and OEWS wage ratios was the absolute difference between their values of log(ACS/OEWS), so a discrepancy of 0.10 means the two sources' ratios differ by about 10%; it was computed at the mean and at the median. Because each occupation contributes to 36 pairs, inference treated occupations as the units: a permutation test exchanging each occupation's centered log ratios at the mean and median, to which the count of occupations favoring the median in a majority of their pairs was also referred because those indicators share pairs; a bootstrap resampling occupations; and 5,000 random partitions into 18 disjoint pairs with a sign test on each (sidedness in the Table 2 note). Each log ratio was also decomposed into a component common to all occupations, which cancels in a ratio, and an occupation-specific component net of ACS sampling variance. Sensitivity analyses omitted the one to five occupations with the largest ACS mean-to-median ratios (selected on the outcome, so these are sensitivities rather than tests; Table 6), applied a paired occupation bootstrap to every contrast between variants (Table 2), capped ACS wages by a rule stated before it was run (recorded on September 15, 2026, after the fixed-dollar caps in Table 2 had been examined and before the rule was computed: "Each record's wage and salary income is capped at the wage top-coding threshold that the Census Bureau publishes for the record's state in the 2024 ACS PUMS top-coded values file. As a pre-stated grid, each occupation's wages are alternatively capped at that occupation's weighted 95th, 97.5th, 99th and 99.5th percentiles, and p values are Holm-adjusted across the five grid points."; Table 7), repeated the comparison against OEWS May 2024 (Table 5), and replicated it on the ACS 2023 one-year file (Table 8).

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

Results

All ACS figures are from the 2024 one-year file (income in the 12 months before a 2024 interview, adjusted by the Census income adjustment factor) and all OEWS figures from the May 2025 national estimates unless another vintage is named.

Coverage across occupations. The unincorporated self-employed were a median 1.4% of civilian employment (interquartile range 0.9% to 4.8%). The share exceeded 10% in four occupations (Table 1). Adding the excluded group at total earnings changed mean total earnings by a median of −0.1% (range −4.5% to +1.3%). Four unadjusted p values were below .05, against 1.9 expected by chance; none survived Holm or Benjamini-Hochberg adjustment. Upper 95% confidence bounds on the absolute change were below 2% in 27 of 37 occupations and below 5% in 35 (Figure 1); for massage therapists (95% CI −8.4% to −0.6%) and chiropractors (−7.3% to +1.3%), reductions of 7% to 8% could not be excluded. With the incorporated self-employed also placed outside the establishment universe, upper 95% bounds on the absolute change were below 2% in 18 of 37 occupations (Table S4). Equivalence tests at the 2% and 5% margins, which were chosen after the estimates, are in Appendix G. On the OEWS income concept, changes in the mean had a median of +0.2% (range −1.5% to +6.1%); five unadjusted p values were below .05, one change survived Holm adjustment (licensed practical and licensed vocational nurses, −0.39%, SE 0.11), and the next smallest Benjamini-Hochberg q was .052 (dietitians and nutritionists, +3.6%, SE 1.2). The share-gap correlation and changes at the median are in Appendix G.

Sensitivity to underreported self-employment income. The coverage estimates take self-employment income as reported. Hurst et al. (2014) found that the self-employed underreport their income in U.S. household surveys by about 25% on average; that is an average for the self-employed, not an estimate for these occupations, so a range of rates was examined. With the excluded group's self-employment income multiplied by $1/(1 - u)$ for underreporting u of 0%, 10%, 20%, 25% and 30%, and replicate standard errors recomputed at each rate, changes in ACS 2024 mean total earnings of 2% or more numbered 2, 1, 3, 5 and 8 of 37, and upper 95% bounds on the absolute change were below 2% in 27, 24, 24, 23 and 20, a majority at every rate. The two largest changes at face value reversed sign: at 25%, the change was +5.4% (SE 2.6; 95% CI +0.3% to +10.6%) for massage therapists and +2.8% (SE 2.9) for chiropractors, against −4.5% and −3.0%, and the massage therapist change crossed zero at underreporting of 13.1% (SE 5.8). Changes significant after Holm adjustment within the 37 numbered 0, 0, 1, 1 and 2 at the five rates (other therapists from 20%, +5.9%, SE 1.1, at 25%; nursing assistants at 30%, +0.47%, SE 0.15), and after Benjamini-Hochberg adjustment 0, 0, 1, 1 and 3. On the OEWS income concept, the same scaling left 1, 2, 2, 3 and 3 changes significant after Holm adjustment, with dietitians and nutritionists and physical therapists among them at every rate from 10% (full results for all 37 occupations in the data deposit). Scaling all of the excluded group's earnings, wages included, gives an upper bound on the adjustment: at 25%, eight changes were 2% or more, upper bounds were below 2% in 22 occupations, and the massage therapist change was +6.9% (SE 2.7). In the class-of-worker-7 reading, with the incorporated self-employed also outside the establishment universe and their self-employment income scaled as well, upper bounds were below 2% in 18, 17, 15, 14 and 13 occupations, fewer than half at every rate, and changes significant after Holm adjustment numbered 2, 2, 3, 4 and 5 (Table 4).

Comparability across occupations. The ratio of medians agreed with OEWS more closely than the ratio of means in 430 of 666 occupation pairs (64.6%; permutation $p = .008$; bootstrap 95% CI [52.2%, 75.6%]), and for 29 of 37 occupations in a majority of their pairs (permutation $p = .02$). Among the 16 occupations not in the preliminary run, the median was more comparable in 69 of 120 pairs (57.5%; permutation $p = .27$; Table 2). The disjoint-pair test, which uses 18 of the 666 pairs, did not reach significance (median one-sided $p = .12$ over 5,000 partitions, 32% with $p < .05$; Table 2). ACS medians were below OEWS medians in 36 of 37 occupations, by 19.7% on average (mean log ratio, SE 0.5 points; with Woodruff standard errors for the medians, SE 0.3 points), a largely common shift that mostly, not wholly, cancels in a ratio: after the common component is removed, the typical pair still differed by 11.2% at the median (Table 2). On an hourly basis (Table 2 note), the shortfall at the median fell to 10.6% (SE 0.3 points with Woodruff standard errors for the medians, 0.4 with replicate standard errors; ACS below OEWS in 33 of 37 occupations) and the standard deviation of log(ACS/OEWS) at the median across occupations fell from 0.14 to 0.07 (Table 2). ACS means were also below OEWS means, in 32 of 37 occupations but by a smaller 12.7%, so for a single occupation's wage level, where the common shift does not cancel, the median was closer than the mean in only 9 of 37 occupations (two-sided $p = .003$). The occupation-specific variance of the log ratio, net of ACS sampling variance, was 0.041 at the mean and 0.018 at the median, a ratio of 2.3 (an upper bound, because the replicate variance subtracted omits imputation variance; permutation $p = .002$; Table 2). The advantage was concentrated in the upper tail of the ACS file (Figure 2). In the three occupations with the largest ACS mean-to-median ratios (magnetic resonance imaging technologists, cardiovascular technologists and technicians, and diagnostic medical sonographers), 96% of wages of $250,000 or more were allocated values, and about half of those records carry their state's top-code replacement value (U.S. Census Bureau, 2025c); across all 37 occupations 43% of such wages were allocated (Table S3). Without those three occupations, which were selected on the outcome, the median was more comparable in 332 of 561 pairs (59.2%; permutation $p = .085$) and the net variance ratio was 1.2 (Table 2); Table 6 reports the result of omitting one to five such occupations (the share of pairs favoring the median fell from 62.7% at k = 1 (permutation $p = .022$; bootstrap 95% CI [49.8%, 74.1%]) to 56.3% at k = 5 ($p = .176$; [42.1%, 69.6%]), and the net variance ratio from 1.75 (95% CI 1.10 to 3.64) to 1.16 (0.90 to 1.52); every bootstrap interval for the share included 50%, and every interval for the ratio from k = 3 on included 1). Capped means and the cap rule stated in advance (Table 7) are reported in Appendix G.

Replication on the ACS 2023 one-year file. The replication plan was written, and its file hashed, on September 15, 2026, before any ACS 2023 person record was read. It kept the 37 occupations, the estimators and the tests of Table 2; paired the ACS 2023 one-year file with OEWS May 2024, the one-year lag of the main analysis; and set the criterion in advance: a share of pairs favoring the median above 50% with a one-sided permutation p below .05. Before any 2023 figure was computed, the same code reproduced the in-sample result (430 of 666 pairs) and the OEWS May 2024 column of Table 5. In the ACS 2023 file the median was more comparable in 347 of 666 pairs (52.1%; permutation $p = .37$; bootstrap 95% CI [37.7%, 65.3%]), in the same direction but not distinguishable from no advantage, so the pre-stated criterion was not met. The net variance ratio was 2.4 (occupation bootstrap 95% CI 1.0 to 5.9; in-sample 2.3; permutation $p = .03$ for the ratio of standard deviations), and for a single occupation's wage level the median was closer than the mean in 13 of 37 occupations (two-sided $p = .10$). Among the 16 occupations outside the preliminary run the median was more comparable in 44 of 120 pairs (36.7%; permutation $p = .89$), and without the three technologist occupations in 246 of 561 (43.9%; $p = .83$). Against OEWS May 2023 the share was 57.2% ($p = .15$; in the same direction without meeting the criterion) and against OEWS May 2025 55.9% ($p = .17$; in the same direction without meeting the criterion). The share differed from the in-sample result by −12.5 percentage points (paired occupation bootstrap 95% CI −22.3 to −3.4), an interval that reflects resampling of occupations and is not a test of change over time. The replication changed the ACS survey year and kept everything else, so the pairwise advantage of the median is not established beyond the ACS 2024 file; the diagnostics in Table 8 describe how the 2023 result varies and are not offered as an explanation of the difference (Table 8).

The comparison against OEWS May 2024 (Table 5) and a restriction to workers of 30 and over with 50 or more weeks worked are reported in Appendix G.

One pair in detail. This pair is examined because the question began there, and the author has published commentary on dietitian pay relative to physical therapists (see Disclosures; Fee, 2026, in press). For dietitians and nutritionists against physical therapists (coverage results in Appendix B), the ACS ratio of means was 77.3 (SE 2.2) against 73.3 in OEWS, a difference of 4.0 points ($p = .07$); the ratios of medians were 75.0 (SE 2.0) and 74.3 (Table 3; Figure 3). They agreed because the ACS medians were 79.7% and 79.0% of the OEWS medians (Woodruff SEs 1.9 and 0.6); the pair's median-ratio discrepancy was smaller than that of 94.7% of pairs (Figure 4), as expected for the pair that prompted the hypothesis and a favorable instance of the common shift; the typical pair differed by 11.2% at the median (Table 2).

What this means for dietitians

Dietitians and nutritionists (ACS occupation code 3030; SOC 29-1031) are the profession this series is written for, so their results are given here on both income concepts, with the vintage of each figure.

Coverage. In the ACS 2024 one-year file, the unincorporated self-employed were 6.4% (SE 0.8) of civilian employed dietitians and nutritionists, the seventh-highest share of the 37 occupations (Table 1). On total earnings, adding them to the establishment-comparable universe changed the mean by −0.10% (SE 0.84). On the OEWS income concept, earnings per hour worked multiplied by 2,080, it changed the mean by +3.61% (SE 1.21; unadjusted $p = .003$; Holm-adjusted $p = .10$; Benjamini-Hochberg $q = .052$). The two concepts point in different directions, which would happen if self-employed dietitians earned more per hour but worked fewer hours, a pattern this report does not test; neither change is significant after adjustment for the 37 tests in its family, and the hourly concept divides by self-reported hours. With the incorporated self-employed also placed outside the establishment universe, the change on total earnings was +0.43% (SE 1.03; Table S4). All of these take reported self-employment income at face value (with self-employment income scaled for underreporting of 10%, 20%, 25% and 30%, the change on total earnings was +0.46%, +1.15%, +1.57% and +2.05%, with SEs of 0.95, 1.09, 1.17 and 1.28; with the incorporated self-employed also excluded it was +1.07%, +1.86%, +2.33% and +2.88%, with SEs of 1.14, 1.28, 1.37 and 1.48, and neither set was significant after adjustment; on the OEWS income concept it was +4.55%, +5.73%,

+6.44% and +7.25%, with SEs of 1.37, 1.58, 1.71 and 1.86, and each of these was significant after Holm adjustment within the 37, with adjusted p from .033 at 10% to .004 at 30%; the 25% rate is an average for the self-employed in U.S. household surveys, not a rate measured for dietitians; Table 4 and the data deposit).

Levels. The ACS 2024 median annual wage of dietitians and nutritionists in the establishment-comparable universe was $60,910, against an OEWS May 2025 median of $76,400, a ratio of 79.7%; the ACS mean was $63,604 against $77,130, a ratio of 82.5% (SE 2.0). On an hourly basis the medians were $31.68 (ACS 2024) and $36.73 (OEWS May 2025) (Woodruff standard errors of the ACS 2024 estimates: annual median $60,910, SE $1,468; hourly median $31.68, SE $0.71; annual ratio 79.7%, SE 1.9 points). ACS figures are 2024 income adjusted by the Census income adjustment factor; OEWS figures refer to May 2025, so the gap includes wage growth between the two periods (Limitations). The Census Bureau allocated 24.0% (SE 1.9) of dietitians' wages, against 16.3% (SE 0.8) of physical therapists'.

For analyses built on OEWS ratios. For the dietitian-to-physical-therapist ratio, coverage alone is not a reason to rework analyses that use OEWS means: adding the excluded group moved the ACS ratio of means by 0.25 points (SE 0.68) on total earnings and by 0.30 points (SE 0.85) with the incorporated self-employed also excluded, and by 2.06 points (SE 0.97, unadjusted $p = .035$) on the OEWS income concept, which is not negligible (ACS 2024 one-year file: at the median, the change in the ratio of medians was −0.17 points on total earnings, with a linearized Woodruff SE of 0.92 and a household-cluster bootstrap 95% interval of −2.00 to +0.44, and 0.01 points on the OEWS income concept, with a linearized Woodruff SE of 0.51 and a household-cluster bootstrap 95% interval of −0.33 to +2.24; with wage and self-employment income capped at each record's state top-code thresholds, the Table 7 rule extended to self-employment income, the change in the ratio of means on total earnings was 0.23 points, SE 0.59, or 0.24 points, SE 0.69, with wages alone capped; with each occupation's total earnings capped at its 95th to 99.5th percentile it was 0.15 to 0.28 points, SE 0.50 to 0.63, with a Holm-adjusted p of 1.00 at each of the five caps in the rule's grid; with a $250,000 cap chosen after inspecting the tail it was 0.28 points, SE 0.61). Differences between the two surveys at the same statistic were larger than the coverage change (Table 3), and OEWS's own median ratio for the pair rose 4.5 points between its May 2023 and May 2025 releases (Table 3 note).

What this does not show. This report does not estimate what self-employed dietitians earn: the class-of-worker-6 cell holds 83 unweighted records, and its relative earnings gap, −1.6% (SE 13.6), is too imprecise to interpret. It says nothing about scheduled pay rates or pay within any employer.

Discussion

As an estimate of the earnings of everyone working in an occupation, the OEWS mean was not materially biased by the exclusion of the unincorporated self-employed for most of the 37 occupations examined, on this report's reading of OEWS coverage and provided self-employment income is reported as accurately as wages (Limitations): on total earnings, upper 95% confidence bounds on the absolute change were below 2%, a margin chosen after the estimates, in 27 of 37 occupations (18 of 37 with the incorporated self-employed also treated as outside OEWS), and no change was significant after adjustment. Because the change scales with the excluded share, the exclusion warrants attention where self-employment is common; the largest changes on total earnings, reductions of 4.5% for massage therapists (unadjusted $p = .02$) and 3.0% for chiropractors ($p = .17$), had confidence bounds on ACS-measured earnings admitting reductions of up to 8%, and bounds were wider on the OEWS income concept (Table 1 note), where one median change, a rise of 5.1% for the pooled code that includes exercise physiologists, survived adjustment (Results). For dietitians, the change was −0.1% (SE 0.8) on total earnings but +3.6% (SE 1.2; $q = .052$) on the OEWS income concept, which would happen if self-employed dietitians earned more per hour but worked fewer hours, a pattern not tested here; neither is significant after adjustment with self-employment income taken as reported, although the change on the OEWS income concept is significant after Holm adjustment once that income is scaled for underreporting of 10% or more (Limitations; Table 4).

In the ACS 2024 file, medians were the more comparable statistic for comparisons across occupations, but the advantage was moderate (Table 2), did not hold on every test, fell to 59.2% of pairs without the three occupations whose upper tails drive the mean (Table 2), and was not confirmed in a replication on the ACS 2023 file specified before those data were read (52.1% of pairs, in the same direction; permutation $p = .37$; Table 8), so the hypothesis that medians compare better was not confirmed. How much of the level gap part-time and part-year work and the upper tails explain is examined in Appendix G. Close agreement between two sources' wage ratios, as in the pair examined, is not evidence that they agree on wage levels, for which the mean was closer than the median in 28 of 37 occupations, a closeness that is not evidence of accuracy, since in some occupations the ACS mean is lifted by allocated and top-coded upper tails.

Limitations

Several limitations apply. The null depends on counting the incorporated self-employed as covered; with them added to the excluded group, upper 95% bounds on the absolute change were below 2% in 18 of 37 occupations, not 27, and four changes were significant after Benjamini-Hochberg and two after Holm adjustment (other therapists, +5.1%, SE 1.3; dental hygienists, +5.6%, SE 1.4; Table S4). The coverage estimates take household-reported self-employment income at face value; the self-employed underreport income to household surveys by about 25% on average (Hurst et al., 2014). Scaling the excluded group's income by that amount, as an illustration rather than an estimate for these occupations, reverses the sign of the largest changes (massage therapists to about +5% to +7%) and raises the count of occupations with changes of 2% or more from 2 to between 5 and 8; for massage therapists, chiropractors and optometrists, three of the four occupations with excluded shares above 10%, the sign of the change depends on the assumed rate (the massage therapist change crosses zero at underreporting of 13.1%, SE 5.8), so the direction of any bias is not determined by these data; for other therapists, the fourth, the change was positive at every rate examined (Table 4). OEWS May 2025 was used as the current release; the ACS 2024 income period sits closer to OEWS May 2024, and the level shift includes wage growth over the intervening year (Table 5 sets both vintages side by side). The ACS income reference period precedes the OEWS reference month; for the pair examined, OEWS's own ratios rose between its May 2023 and May 2025 releases (BLS, 2024a, 2024b, 2026a), so aligning the periods would widen both ratio discrepancies, and BLS does not encourage time-series use of OEWS (BLS, 2026c). The comparability advantage did not reach significance on disjoint pairs, among the 16 occupations outside the preliminary run, or in the pre-stated replication on the ACS 2023 one-year file (Table 8). Allocation and top-coding

affect the mean: in three occupations the upper tail consists mostly of allocated values, about half of them at state top-code replacement amounts (Results; Appendix H). The rules excluded physicians, surgeons, dentists, and home health and personal care aides, and the floor excluded six small occupations, three with excluded shares above 15%; a coverage-only check found no change above 2.1% among excluded codes meeting the floor, one (other healthcare support workers, −0.5%) significant after adjustment within that group (Table S2), and the null is not extended below the floor. Among the excluded codes, the coverage-only changes on total earnings were −0.54% (SE 0.30) for personal care aides, 9.9% of weighted civilian employment across the 56 codes; −0.23% (SE 0.18) for physicians, 6.1%; −0.52% (SE 0.27) for home health aides, 3.6%; and +1.01% (SE 0.94) for dentists, 1.2% (Table S2). The policy example cited in the Introduction (Tyler et al., 2024) concerns personal care aides, who are outside the set. One pooled code (3245, other therapists) covers 7.6 times the OEWS occupation's scope (237,485 persons against 31,200 jobs; Table 1 note); results without it are in Table 2. No analysis was made within the self-employed dietitian cell, which holds 83 unweighted records (relative earnings gap −1.6%, SE 13.6). The main analysis covers a single ACS year, the 2024 one-year file (the 2025 one-year file had not been published when checked on September 29, 2026); the comparability test was repeated on the 2023 one-year file (Table 8).

Conclusion

On this report's reading of who OEWS covers, and with self-employment income taken as reported, leaving out the unincorporated self-employed moved mean total earnings by less than 2 percent in 27 of 37 health occupations, dietitians and nutritionists included, a margin chosen after the estimates. The exclusion matters more where self-employment is common, and fewer occupations pass if owners of incorporated practices are also counted as left out. For ratios between occupations, the median compared better than the mean in the ACS 2024 file, but that edge was not confirmed in a replication on the 2023 file specified before those data were read, so it is not established. The two surveys did not agree on wage levels. Both questions are set out in a timestamped plan for retest on the ACS 2025 file.

Citing a federal wage figure

- Name the survey and its vintage: OEWS May 2025 national estimates; ACS 2024 one-year PUMS.
- Name the statistic and its basis: mean or median; annual or hourly; annualized at 2,080 hours (OEWS) or realized annual earnings (ACS).
- Name the universe: wage and salary jobs in establishments (OEWS), or persons in households, with or without the self-employed (ACS).
- For a ratio between occupations, take both wages from one source and one statistic.
- Do not mix sources for a level: across these 37 health occupations, ACS 2024 medians averaged 19.7% below OEWS May 2025 medians.
- Give the uncertainty: OEWS publishes relative standard errors for its means; ACS estimates need the replicate weights and, for medians, Woodruff intervals.
- Check allocation and top-coding before quoting an ACS mean (Appendix H).
- Treat changes between OEWS releases with care: BLS does not encourage time-series use of OEWS (BLS, 2026c).
- For the self-employed, remember that household-reported self-employment income is underreported on average (Hurst et al., 2014).

How this report was checked

The status note describes the review. The validity gate for this report recomputes the selection of occupations, the coverage changes and the comparability measures from the deposited extracts with estimators written independently of the analysis scripts, re-runs the bootstrap, permutation and partition tests on an independent random stream within stated tolerances, and checks that each interpreted quantity carries its standard error or interval. It matches every number printed in the report, by value and at the precision printed (not by the quantity it measures), to a value it recomputed, to a value recorded in an output file of an analysis script, or to a stated reason. It does not recompute several results, among them the underreporting sensitivity (Table 4), the cap rule stated in advance (Table 7) and the ACS 2023 replication (Table 8), whose printed numbers it checks only by that value match, and it ran 2,578 checks on the final text (none failed). On September 15, 2026, a second estimator, written in Python by an AI agent (Claude, Anthropic) working under the author's direction without reading the analysis scripts, and not reviewed by a second person, recomputed the headline point estimates and counts for the 37 occupations from the ACS 2024 one-year extract, the OEWS May 2025 national workbook and the Census 2018 occupation code list. At the precision printed, it reproduced the selection of 43 and then 37 of the 56 health occupation codes; the median excluded share of 1.44% (interquartile range 0.85% to 4.77%, type 7 quantiles); the changes in mean total earnings with their replicate standard errors, and the summary of changes on the OEWS income concept; the 36 of 37 occupations with ACS medians below OEWS medians; the occupation-specific variances of 0.041 at the mean and 0.018 at the median (divisor 37; divisor 36 gives 0.042 at the mean, with the ratio unchanged at 2.3); and the corresponding columns of Tables S1 and S2 for every occupation. The counts depend on how the weighted median is defined, and both definitions in Table 2 were matched: with the interpolated median, 430 of 666 pairs, 29 occupations in a majority of their pairs and 9 of 37 at the single-occupation level; with the step median, 441 of 666, 30 and 8. Two further interpolation rules gave 423 and 435 of 666 pairs. The dated verification sheet (VERIFICATION_SHEET_R4_2026-09-16.md, dated September 16, 2026) lists each load-bearing claim with its status and the primary source that settles it, and is deposited with the data. Claude (Anthropic) was used under the author's direction as described in Methods; the independent recomputations were AI-assisted and were not reviewed by a second person.

Data availability

All data are public federal data; no restricted, nonpublic or third-party data were used. The primary sources are the American Community Survey 2024 one-year Public Use Microdata Sample person file (U.S. Census Bureau, 2025a), distributed as csv_pus.zip at https://www2.census.gov/programs-surveys/acs/data/pums/2024/1-Year/ (602,847,146 bytes; Last-Modified December 4, 2025); the 2024 PUMS data dictionary (U.S. Census Bureau, 2025e) and top- and bottom-coded values file (U.S. Census Bureau, 2025c); the Census 2018 occupation code list and

crosswalk (U.S. Census Bureau, 2019); the OEWS May 2025 national estimates (BLS, 2026a) and May 2023 occupation pages (BLS, 2024a, 2024b); the OEWS May 2024 national estimates (BLS, 2025b; released April 2, 2025, distributed as oesm24nat.zip at https://www.bls.gov/oes/special-requests/oesm24nat.zip (282,052 bytes; retrieval route and SHA-256 in Methods)); the ACS 2023 one-year PUMS person file (U.S. Census Bureau, 2024b; distributed as csv_pus.zip at https://www2.census.gov/programs-surveys/acs/data/pums/2023/1-Year/ (597,292,173 bytes; Last-Modified September 10, 2024), with the 2023 PUMS data dictionary dated October 17, 2024 and the 2023 top- and bottom-coded values file); and the BLS documentation pages quoted, archived with their retrieval dates, except the Employment Projections definitions page cited in the Introduction, which was read on September 25, 2026 and is not archived.

Deposited at 10.5281/zenodo.23570367 (version 1.1; version 1.0 10.5281/zenodo.23044638; concept DOI 10.5281/zenodo.23044637): the scripts that build the analysis extracts from the Census flat files, the analysis extracts, the occupation-set rules with their file dates, the analysis scripts and the result files they wrote, Tables S1 to S5 as CSV files with unique column names, the validity gate and its output, the dated verification sheet, the literature-search record (its Google Scholar screen, a further search of the literature, was not completed: 30 of 300 records were screened), SHA-256 manifests of the deposited files, one for each archive, and a list of the data inputs with their sources, sizes and checksums that marks the inputs not redistributed. The Census flat files are not redistributed because of their size; the deposit gives their URLs, byte sizes and checksums. The plan for testing both questions on the ACS 2025 one-year file was written and hashed on September 29, 2026 (SHA-256 d68d804fa42cb0d4fbcc03ffa181bd5634e4ecfa847bd02e83471fb023e20e09), and a check the same day found neither the Census Bureau's 2025 one-year PUMS directory nor its API endpoint published. The plan as hashed, its hash record and an RFC 3161 timestamp of the hash from FreeTSA (September 29, 2026, 12:10:51 UTC) are deposited in version 1.1 of the data record; version 1.0 holds a copy of the plan that is not the hashed file (see Corrections). This report is deposited at 10.5281/zenodo.23570366 (version 1.1; version 1.0 10.5281/zenodo.23044622).

Corrections

Corrections to this report are dated, labelled and appended, never silently swapped; each names what was wrong, where the error came from, who found it and whether the argument survives. The version history of the series is in the series Introduction. Appendix D records how the analysis changed before release.

Correction, version 1.1, October 22, 2026. The report described its data record and its sources inexactly in fifteen places. It said the record held the underreporting results, the run of September 9, 2026, on 25 occupations, every analysis script and result file, the analysis extracts with their builders and a manifest of every archived input; version 1.0 of the record lacked most of these, including the ACS 2023 extract. It called the literature-search record completed, though it holds an unfinished Google Scholar search. It printed the hashes of two plans and said one was deposited, but the copies in version 1.0 are not the hashed files: each differs by one line, and the 2025 plan lacks one table row. It said the validity gate recomputes every figure and can be run from the deposit; it ties some results to recorded outputs and reads the author's folders by absolute path. It said every BLS page quoted was archived, but one was not, and it gave the wrong day for reading one report (September 15, 2026, not September 11). Mostly, the text described the author's working folder, not the record staged from it. Version 1.1 of the data record adds the missing files that can be shared and the plans as hashed, and its README lists the fifteen places and what stays out (among others, copies of third-party documents, two large extracts, drafts and build records); the text now says what the record holds. A read-only AI audit the author directed found these on October 2, 2026. No finding changes.

Updated October 22, 2026: the declaration of conflicting interest, the status note, the statement on the use of artificial intelligence and two sentences on the review of the recomputations in the section on how the report was checked were updated. The declaration's last clause now says that no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report. The declaration also names his Academy workgroup seat. The status note and the section on how the report was checked now print 2,578 checks, up from 2,526. One standard error in Appendix B, for physical therapists, was corrected from 1.2 to 1.1. The abstract and the Conclusion now say that both questions are set out in a timestamped plan for retest, not that they are registered. None of this changes a finding.

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Tables

Table 1

Health occupations in which the unincorporated self-employed exceeded 5% of civilian employment, ACS 2024 one-year PUMS.

Occupation	Unweighted *n*	Share in excluded group, % (SE)	Change in mean total earnings from adding the excluded group, % (SE)	Excluded group mean total earnings relative to the establishment universe, % (SE)
Massage therapists	1,932	39.0 (1.5)	−4.5 (2.0)	−11.6 (5.1)
Chiropractors	737	23.8 (2.1)	−3.0 (2.2)	−12.9 (9.4)
Other therapists (includes exercise physiologists)	2,659	14.5 (0.8)	+1.3 (0.9)	+9.3 (6.0)
Optometrists	562	11.1 (1.8)	−1.1 (1.2)	−10.6 (10.5)
Veterinarians	1,255	9.0 (1.2)	−0.5 (0.8)	−5.2 (9.2)
Medical transcriptionists	488	7.2 (1.3)	−1.0 (1.0)	−13.4 (13.8)
Dietitians and nutritionists	1,126	6.4 (0.8)	−0.1 (0.8)	−1.6 (13.6)
Speech-language pathologists	2,370	5.6 (0.7)	−0.6 (0.4)	−10.6 (7.6)
Nurse anesthetists	580	5.2 (0.9)	+0.5 (0.8)	+10.2 (15.9)
All 37 occupations, median		1.4	−0.1	−5.2

Note. The unweighted *n* is civilian employed respondents in classes of worker 1 through 7. The change is the percentage difference between the weighted mean of total earnings (wage and salary income plus self-employment income) in the establishment-comparable universe with and without the excluded group; both groups are valued at total earnings, so the change isolates the excluded group rather than the income concept. No change was significant after Holm or Benjamini-Hochberg adjustment across the 37 occupations; upper 95% confidence bounds on the absolute change were below 1% in 20 occupations, below 2% in 27 and below 5% in 35. ACS classes of worker: 1 private for-profit employee; 2 private nonprofit employee; 3 local, 4 state and 5 federal government employee; 6 self-employed in an unincorporated business; 7 self-employed in an incorporated business. The 2024 PUMS pools exercise physiologists into code 3245 (other therapists) and nurse midwives into code 3258 (nurse practitioners); each was compared with the OEWS occupation holding 73% or 98% of the combined OEWS employment (Table S1). The ACS establishment-comparable universe held 237,485 persons (SE 6,424) in code 3245 against 31,200 OEWS jobs in the two SOC codes combined, so that code's scope differs from the OEWS occupation's; results without the two pooled codes are in Table 2. All 37 occupations are listed in Table S1. On the OEWS income concept, estimates were less precise: upper 95% confidence bounds on the absolute change were below 5% in 29 of 37 occupations and reached 13% for other therapists (+6.1%, SE 3.4) and 18% for optometrists (+5.3%, SE 6.7). Class of worker does not identify employees of private households, whom OEWS does not cover; identified by industry (ACS code 9290), they made up at most 0.49% of an occupation's establishment-comparable universe (nursing assistants), with none in 30 of 37 occupations. Removing them changed no occupation's mean wage by more than 0.18% (upper 95% bounds at most 0.55%) or median wage by more than 0.02% (upper 95% bounds below 1% under each method examined, at most 0.80% from a household-cluster bootstrap; Table S5) and reversed 2 of 666 pair comparisons, leaving the median more comparable in 428 of 666 pairs and in 68 of the 120 pairs among the 16 occupations outside the preliminary run (Table S5).

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file; author's estimates. Units: percent of civilian employment and percent of mean total earnings (2024 income, adjusted); standard errors from the 80 replicate weights.

Table 2

Comparability of the ratio of medians and the ratio of means between ACS 2024 and OEWS May 2025, 37 health occupations.

Measure	Result
Occupation pairs in which the median was more comparable	430 of 666 (64.6%)
Permutation exchanging log(ACS/OEWS) at the mean and at the median within occupation, share of pairs	$p = .008$
Occupations for which the median was more comparable in a majority of pairs	29 of 37 (permutation $p = .02$)
Bootstrap over occupations, 95% confidence interval for the share of pairs	[52.2%, 75.6%]
5,000 random partitions into 18 disjoint pairs: median p; share of partitions with $p < .05$	.12; 32%

Measure	Result
Share of pairs favoring the median across sample-size floors of 200 to 500 records; omitting any one occupation	63.5% to 64.6%; 62.7% to 66.8%
Omitting the three occupations with the largest ACS mean-to-median ratios (MRI technologists, cardiovascular technologists, sonographers; selected on the outcome): pairs favoring the median; net variance ratio	332 of 561 (59.2%; permutation p = .085); 1.2
Omitting the k = 1 to 5 occupations with the largest ACS mean-to-median ratios (Table 6)	56.3% to 62.7% of pairs (permutation p .022 to .176); net variance ratio 1.16 to 1.75
Uninterpolated (step) weighted median: pairs favoring the median (permutation p); occupations in a majority of pairs; single-occupation level	441 of 666 (66.2%; .004); 30 of 37; 8 of 37
Excluding the two pooled codes (35 occupations, 595 pairs): pairs favoring the median; occupations in a majority of pairs (permutation p)	385 of 595 (64.7%); 27 of 35 (p = .03)
Occupations not in the preliminary run (16; 120 pairs) / pairs involving at least one of them (456) / the 21 in it (210 pairs): pairs favoring the median (permutation p)	69 of 120 (57.5%; .27) / 278 of 456 (61.0%; .07) / 152 of 210 (72.4%; < .001)
Typical pair discrepancy between the sources' wage ratios (median over pairs), mean / median	17.2% / 11.2%
Occupation-specific variance of log(ACS/OEWS) net of ACS sampling variance, mean / median (standard deviation)	0.041 (0.20) / 0.018 (0.13)
Ratio of occupation-specific variances, mean to median (bootstrap 95% CI; leave-one-occupation-out range; permutation p for the ratio of standard deviations)	2.3 (1.2 to 5.6; 1.8 to 2.8; .002)
Occupations with the ACS median below the OEWS median (average shortfall 19.7%; for means, 32 of 37, average shortfall 12.7%)	36 of 37
Average log(ACS/OEWS) at the median across occupations, annual basis / hourly basis (SE); standard deviation across occupations	−0.219 (0.004) / −0.112 (0.003); 0.14 / 0.07
Occupations in which the median was closer than the mean for the single-occupation wage level, where the common shift does not cancel	9 of 37 (p = .003)
ACS wages capped at $250,000: pairs favoring the median (permutation p); occupations in a majority of pairs (permutation p); bootstrap 95% CI; variance ratio; single-occupation level; the cap changes no median, so these are also the median against the capped mean	372 of 666 (55.9%; .16); 23 of 37 (.24); [43.7%, 67.8%]; 1.4; 12 of 37
Reported wages only: the same measures	358 of 666 (53.8%; .30); 24 of 37 (.21); [40.2%, 67.4%]; 1.1; 14 of 37
Capped and reported wages only: the same measures	308 of 666 (46.2%; .75); 17 of 37 (.55); [34.3%, 58.9%]; 0.95; 21 of 37
Only allocated wages capped at $250,000: the same measures	400 of 666 (60.1%; .06); 26 of 37 (.14); [46.9%, 72.0%]; 1.6; 9 of 37
Only reported wages capped at $250,000: the same measures	396 of 666 (59.5%; .06); 25 of 37 (.14); [46.9%, 71.1%]; 2.2; 12 of 37
Fall in the share of pairs favoring the median from 64.6%, paired bootstrap 95% CI, percentage points: wages capped; reported wages only; only allocated wages capped; only reported wages capped	8.7 [1.5, 16.0]; 10.8 [−2.3, 25.2]; 4.5 [−1.1, 11.1]; 5.1 [−0.3, 11.6]
Change in the net variance ratio from 2.3, paired occupation bootstrap 95% CI: wages capped; reported wages only; capped and reported; only allocated wages capped; only reported wages capped; allocated-only against reported-only	−0.88 [−2.86, −0.20]; −1.16 [−4.58, 0.02]; −1.36 [−4.76, −0.20]; −0.73 [−2.71, −0.05]; −0.13 [−0.27, 0.01]; −0.60 [−2.62, 0.13] (percentile intervals from the same 5,000 resamples as the row above; differences of unrounded ratios)
Median against a mean capped at $150,000 / $200,000 / $300,000 / $400,000 / $500,000: pairs favoring the median (permutation p); capped mean against the uncapped mean: pairs favoring the capped mean (permutation p)	345 (.39) / 355 (.31) / 390 (.08) / 409 (.03) / 418 (.02); 416 (.04) / 438 (.01) / 446 (.007) / 456 (.003) / 464 (.001)
Mean capped at $250,000 against the uncapped mean: pairs in which the capped mean was more comparable (permutation p); occupations in a majority of pairs (permutation p); bootstrap 95% CI; single-occupation level, capped mean closer	446 of 666 (67.0%; .006); 30 of 37 (.03); [54.0%, 78.5%]; 4 of 37

Note. For each occupation, log(ACS/OEWS) is the log of the ACS estimate divided by the OEWS estimate of the same statistic, the mean or the median annual wage. The discrepancy between the ACS and OEWS wage ratios for occupations a and b is the absolute difference between their values of log(ACS/OEWS); the statistic with the smaller discrepancy is the more comparable for that pair. Inference treats occupations as independent units because each occupation contributes to 36 pairs. Variances are across the 37 occupations in squared log units, net of ACS sampling variance; the component common to all occupations cancels in a ratio and is not counted. Permutation and partition p values are one-sided in the direction of the median (for the capped-mean rows, of the capped mean); the bootstrap interval is two-sided, and the count of occupations for which the median was closer at the single-occupation level, one indicator per occupation, is tested with a two-sided exact binomial. The permutation test exchanges each occupation's centered log(ACS/OEWS) at the mean and at the median under the null that the two statistics are equally comparable; the majority count is referred to the same distribution because the majority indicators share pairs. The OEWS May 2025 estimates pool six semiannual panels collected from November 2022 to May 2025, adjust wages from earlier panels to the May 2025 reference date, and model wages for unsampled and nonresponding establishments (BLS, 2026b). OEWS estimates are treated as fixed; their published relative standard errors on the mean have a median of 0.4% and a maximum of 3.4% across the 37 occupations, a sampling variance in logs of at most 0.0012, and none is published for the median. The capped-wage, reported-wage and step-median rows are sensitivities, not estimates of the OEWS wage concept; the $250,000 threshold was chosen after the upper tail was examined (Table S3), and the cap-grid row reports other thresholds. The preliminary-run row applies the same permutation to each subset of pairs, and the paired bootstrap applies each resample of occupations to every variant. The hourly basis divides each respondent's wage and salary income by reported hours and weeks and compares the resulting hourly median with the OEWS hourly

median. The standard errors of the average log ratios use Woodruff standard errors for the medians (from the replicate weights alone they are 0.006 and 0.004) and hold the 37 occupations fixed; treating occupations as sampled, they are 0.023 and 0.012, and the share of the annual-basis shift removed on the hourly basis is 0.49 (bootstrap 95% CI 0.40 to 0.57) and of the standard deviation across occupations 0.47 (bootstrap 95% CI 0.18 to 0.61). With Woodruff standard errors for the medians (Table 3 note), the net variance ratio is 2.3 (bootstrap 95% CI 1.2 to 5.3). The permutation *p* of .085 for the drop-three row is from 200,000 draws (Monte Carlo standard error .0006; Table 6); the 5,000-draw stream used for the same quantity in Tables 5 and 8 gives .08, a difference within Monte Carlo error.

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file; U.S. Bureau of Labor Statistics, OEWS May 2025 national estimates; author's estimates. Units: annual wages; log ratios; shares of occupation pairs. Basis: ACS establishment-comparable universe, allocated values included unless stated.

Table 3

The pair that motivated the analysis: the dietitian wage as a percentage of the physical therapist wage at six points of the distribution, establishment-comparable universe, ACS 2024 (allocated values included) against OEWS May 2025.

Point in the distribution	ACS, % (SE)	OEWS, %	Difference, percentage points	*p*
10th percentile	66.7 (5.1)	63.6	+3.0	.55
25th percentile	67.2 (3.4)	73.2	−6.0	.08
Median	75.0 (2.0)	74.3	+0.6	.75
75th percentile	78.6 (1.9)	73.7	+4.9	.01
90th percentile	83.3 (3.5)	76.8	+6.6	.06
Mean	77.3 (2.2)	73.3	+4.0	.07

Note. Percentiles are interpolated across the wage value containing the quantile. Percentile standard errors use the Woodruff (1952) method: the replicate standard error of the weighted share below the estimate, divided by the density implied by the interpolated quantiles 0.05 above and below, because replicate estimates of a percentile that falls on a heaped wage value stay within that value (the dietitian and physical therapist medians fall on reported wages of $60,000 and $80,000, which hold 5.2% and 6.2% of the weight); with a bandwidth of 0.10 (0.075 at the 90th percentile) the standard errors range from 2.0 to 5.6. Standard errors use the 80 replicate weights; OEWS estimates are treated as fixed. Differences and *p* values are computed from unrounded estimates and may differ by 0.1 from the difference of the rounded ratios shown. The six *p* values are unadjusted; with Holm adjustment within the table no difference remains below .05 (smallest adjusted $p = .06$, 75th percentile). In OEWS May 2023 the pair's ratios were 71.0 at the mean and 69.9 at the median (BLS, 2024a, 2024b), 2.3 and 4.5 points below May 2025, so the OEWS median ratio moved more between releases than the 0.6-point difference between the sources. Coverage, allocation and tail results for the pair are in Appendix B; the pair's counts, the persons-and-jobs caveat and wage heaping are under Differences between the instruments.

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file; U.S. Bureau of Labor Statistics, OEWS May 2025 and May 2023 occupation estimates; author's estimates. Units: percent of the physical therapist wage at the same point; standard errors Woodruff (percentiles) or replicate (mean).

Table 4

Change in mean total earnings from adding the unincorporated self-employed, with self-employment income scaled for underreporting, 37 health occupations, ACS 2024 one-year PUMS.

Panel A. Change in mean total earnings, % (SE), by assumed underreporting of self-employment income. Occupations in which the unincorporated self-employed exceeded 5% of civilian employment.

Occupation	Share in excluded group, %	0%	10%	20%	25%	30%	25%, all excluded earnings scaled (bound)	25%, classes of worker 6 and 7 excluded
Massage therapists	39.0	−4.5 (2.0)	−1.2 (2.2)	+2.9 (2.5)	+5.4 (2.6)	+8.3 (2.8)	+6.9 (2.7)	+8.4 (3.1)
Chiropractors	23.8	−3.0 (2.2)	−1.1 (2.4)	+1.3 (2.7)	+2.8 (2.9)	+4.5 (3.1)	+3.8 (3.0)	+11.4 (7.2)
Other therapists (includes exercise physiologists)	14.5	+1.3 (0.9)	+2.9 (0.9)	+4.8 (1.0)	+5.9 (1.1)	+7.2 (1.2)	+6.6 (1.1)	+10.1 (1.5)
Optometrists	11.1	−1.1 (1.2)	−0.2 (1.2)	+1.1 (1.4)	+1.8 (1.4)	+2.6 (1.5)	+2.0 (1.5)	+11.3 (4.4)
Veterinarians	9.0	−0.5 (0.8)	+0.3 (0.9)	+1.3 (1.0)	+1.9 (1.1)	+2.6 (1.2)	+2.4 (1.2)	+7.3 (2.1)
Medical transcriptionists	7.2	−1.0 (1.0)	−0.4 (1.1)	+0.4 (1.2)	+0.9 (1.3)	+1.4 (1.4)	+1.1 (1.4)	+1.1 (1.3)
Dietitians and nutritionists	6.4	−0.1 (0.8)	+0.5 (0.9)	+1.2 (1.1)	+1.6 (1.2)	+2.0 (1.3)	+2.0 (1.2)	+2.3 (1.4)
Speech-language pathologists	5.6	−0.6 (0.4)	−0.1 (0.5)	+0.5 (0.5)	+0.8 (0.6)	+1.2 (0.6)	+1.1 (0.6)	+1.1 (0.7)

Occupation	Share in excluded group, %	0%	10%	20%	25%	30%	25%, all excluded earnings scaled (bound)	25%, classes of worker 6 and 7 excluded
Nurse anesthetists	5.2	+0.5 (0.8)	+1.0 (0.9)	+1.7 (1.1)	+2.1 (1.2)	+2.5 (1.3)	+2.4 (1.2)	+2.5 (1.7)
All 37 occupations, median	1.4	−0.1	0.0	+0.4	+0.5	+0.6	+0.5	+1.1

Panel B. Counts across the 37 occupations at each assumed underreporting rate.

Count of occupations (of 37)	0%	10%	20%	25%	30%
Self-employment income of class of worker 6 scaled					
Upper 95% bound on the absolute change below 2%	27	24	24	23	20
Absolute change of 2% or more	2	1	3	5	8
95% CI wholly beyond ±2%	0	0	1	1	2
Unadjusted *p* below .05	4	2	3	5	11
Holm-adjusted *p* below .05	0	0	1	1	2
Benjamini-Hochberg *q* below .05	0	0	1	1	3
All earnings of class of worker 6 scaled (bound)					
Upper 95% bound on the absolute change below 2%	27	24	24	22	20
Absolute change of 2% or more	2	1	4	8	9
95% CI wholly beyond ±2%	0	0	1	1	2
Unadjusted *p* below .05	4	2	3	8	12
Holm-adjusted *p* below .05	0	1	1	1	3
Benjamini-Hochberg *q* below .05	0	1	1	1	4
Classes of worker 6 and 7 excluded, self-employment income of both scaled					
Upper 95% bound on the absolute change below 2%	18	17	15	14	13
Absolute change of 2% or more	14	13	15	16	16
95% CI wholly beyond ±2%	3	3	4	7	7
Unadjusted *p* below .05	10	11	12	13	15
Holm-adjusted *p* below .05	2	2	3	4	5
Benjamini-Hochberg *q* below .05	4	7	9	11	13

Note. Each cell is the percentage change in the weighted mean of total earnings (wage and salary income plus self-employment income) in the establishment-comparable universe (classes of worker 1 through 5 and 7 with positive wage and salary income) from adding class-of-worker-6 respondents with positive total earnings, as in Table 1, after multiplying their self-employment income by $1/(1 - u)$ for an assumed underreporting rate u. Wages and the establishment universe are unchanged, so the 0% column reproduces Table 1 and Table S1 exactly. The 20% column corresponds to a multiplier of 1.25 and the 25% column to 1/0.75. Hurst et al. (2014) report that the self-employed underreport their income in U.S. household surveys by about 25% on average; that is an average for the self-employed, not an estimate for these occupations, and the rates shown are a range for illustration. The bound column multiplies all of the excluded group's earnings, wages included, by the same factor; it bounds the adjustment and is not an estimate. The last column places the incorporated self-employed outside the establishment universe as well (base classes of worker 1 through 5 with positive wage and salary income, as in Table S4, which it reproduces at 0%) and scales the self-employment income of classes 6 and 7. The share column is the Table 1 share. Self-employment losses are scaled with their sign; scaling only positive self-employment income, or holding the excluded group's membership at its 0% definition, changed no estimate by more than 0.04 points. Standard errors are recomputed at every rate by successive-difference replication with the 80 replicate weights; unadjusted *p* values are two-sided, and Holm and

Benjamini-Hochberg adjustments are within the 37 occupations at each rate and in each reading. The upper 95% bound is the absolute change plus 1.96 standard errors; a 95% CI wholly beyond ±2% has both limits above +2% or both below −2%. Under the main scaling at 25%, the five changes of 2% or more were for other therapists (+5.9%), massage therapists (+5.4%), chiropractors (+2.8%), dental hygienists (+2.4%) and nurse anesthetists (+2.1%). Results for all 37 occupations in each reading, and on the OEWS income concept, are in the data deposit.

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file; underreporting reference rate from Hurst et al. (2014); author's estimates. Units: percent of mean total earnings (2024 income, adjusted by the Census income adjustment factor) and percent of civilian employment; standard errors from the 80 replicate weights.

Table 5

Comparability and level measures against OEWS May 2025 and OEWS May 2024, ACS 2024 one-year PUMS, 37 health occupations.

Measure	Against OEWS May 2025	Against OEWS May 2024	Difference, May 2024 minus May 2025 (paired bootstrap 95% CI)
Occupations with the ACS median below the OEWS median [bootstrap 95% CI]	36 of 37 [34, 37]	36 of 37 [34, 37]	0 [0, 0]; the same occupations
Average shortfall of the ACS median below the OEWS median, % (replicate SE; bootstrap 95% CI)	19.7 (SE 0.5; [16.1, 23.2])	16.4 (SE 0.5; [12.8, 20.0])	−3.3 [−4.2, −2.5] points
Occupations with the ACS mean below the OEWS mean [bootstrap 95% CI]	32 of 37 [28, 36]	32 of 37 [28, 36]	0 [0, 0]; the same occupations
Average shortfall of the ACS mean below the OEWS mean, % (replicate SE; bootstrap 95% CI)	12.7 (SE 0.4; [6.6, 18.2])	9.2 (SE 0.5; [3.0, 14.9])	−3.4 [−4.5, −2.6] points
Average shortfall of the ACS hourly median below the OEWS hourly median, % (replicate SE; bootstrap 95% CI)	10.6 (SE 0.4; [8.4, 12.7])	7.0 (SE 0.4; [5.0, 9.0])	−3.7 [−4.7, −2.8] points
Share of the annual median shortfall removed on the hourly basis [bootstrap 95% CI]	0.49 [0.40, 0.57]	0.60 [0.50, 0.69]	+0.11 [+0.08, +0.15]
Pairs in which the median was more comparable (permutation p; bootstrap 95% CI)	430 of 666 (64.6%; p = .008; [52.2%, 75.6%])	425 of 666 (63.8%; p = .01; [51.8%, 74.3%])	−0.8 [−6.4, +4.3] points
Occupations for which the median was more comparable in a majority of pairs (permutation p)	29 of 37 (p = .02)	28 of 37 (p = .04)	−1 [−8, +6]
Occupation-specific variance of log(ACS/OEWS) net of ACS sampling variance, mean / median [bootstrap 95% CI]	0.041 [0.018, 0.066] / 0.018 [0.007, 0.031]	0.040 [0.016, 0.067] / 0.017 [0.006, 0.031]	−0.001 [−0.006, +0.003] / −0.001 [−0.003, +0.002]
Ratio of net variances, mean to median [bootstrap 95% CI]; permutation p for the ratio of standard deviations	2.3 [1.2, 5.6]; p = .002	2.3 [1.2, 6.1]; p = .002	+0.02 [−0.20, +0.70]
Occupations in which the median was closer than the mean for the single-occupation wage level (two-sided exact binomial p)	9 of 37 (p = .003)	7 of 37 (p < .001)	−2 [−5, 0]
5,000 random partitions into 18 disjoint pairs: median p; share of partitions with p < .05	.12; 32%	.12; 29%	not differenced
Pairs whose verdict differs between the two releases [bootstrap 95% CI]			83 of 666 (12.5% [6.9%, 19.7%]); 39 toward the median, 44 toward the mean
Diagnostics rerun against each release			
Share of pairs favoring the median across sample-size floors of 200 to 500 records; omitting any one occupation; net variance ratio omitting any one occupation	63.5% to 64.6%; 62.7% to 66.8%; 1.75 to 2.83	62.0% to 63.8%; 61.9% to 65.9%; 1.75 to 3.02	not differenced
Excluding the two pooled codes (35 occupations, 595 pairs): pairs favoring the median (permutation p); occupations in a majority of pairs (permutation p)	385 of 595 (64.7%; p = .009); 27 of 35 (p = .03)	383 of 595 (64.4%; p = .01); 27 of 35 (p = .03)	not differenced
Occupations not in the preliminary run (16; 120 pairs) / pairs involving at least one of them (456) / the 21 in it (210 pairs): pairs favoring the median (permutation p)	69 of 120 (57.5%; .27) / 278 of 456 (61.0%; .07) / 152 of 210 (72.4%; < .001)	65 of 120 (54.2%; .39) / 270 of 456 (59.2%; .10) / 155 of 210 (73.8%; < .001)	not differenced

Measure	Against OEWS May 2025	Against OEWS May 2024	Difference, May 2024 minus May 2025 (paired bootstrap 95% CI)
Omitting MRI technologists, cardiovascular technologists and sonographers (selected on the outcome): pairs favoring the median (permutation *p*); net variance ratio	332 of 561 (59.2%; $p = .08$); 1.2	324 of 561 (57.8%; $p = .12$); 1.2	not differenced
ACS wages capped at $250,000 / reported wages only: pairs favoring the median (permutation *p*)	372 of 666 (55.9%; $p = .16$) / 358 of 666 (53.8%; $p = .30$)	357 of 666 (53.6%; $p = .28$) / 353 of 666 (53.0%; $p = .32$)	not differenced

Note. The ACS 2024 estimates are identical in both columns; only the OEWS figures change. OEWS May 2024 was released by BLS on April 2, 2025 and pools six semiannual panels from November 2021 to May 2024 (BLS, 2025c); OEWS May 2025, the release used in the rest of this report, pools six from November 2022 to May 2025 (BLS, 2026b). Four panels are common to both, and each release adjusts wages from earlier panels to its own reference date, so a change between releases combines wage change with panel replacement. Both files list SOC 29-2010 (clinical laboratory technologists and technicians) as a broad and a detailed row with identical figures; the detailed row is used. All 37 occupations have a published May 2024 mean, median and hourly median, and occupation rules 1 to 3 select the same 43 codes against either release. The OEWS median was higher in May 2025 than in May 2024 in all 37 occupations, by an average of 4.0 log points (range 0.3 to 18.1); the mean changed by 3.9 log points (range −1.4 to +20.3). Paramedics had an ACS median above the OEWS median against both releases. Replicate standard errors hold the 37 occupations fixed and treat OEWS as fixed, so in log units they are the same for both releases; bootstrap intervals resample occupations (5,000 draws). The two release columns use the permutation, bootstrap and partition procedures of Table 2 with the same random seed; the difference column applies one stream of 5,000 occupation resamples to both releases in every draw, so its intervals describe how the between-release change varies across occupations, not OEWS sampling error, which BLS does not publish for the median. Permutation and partition *p* values are one-sided in the direction of the median; the single-occupation level count uses a two-sided exact binomial test. The hourly rows use respondents with positive usual hours and weeks worked. Rows below the diagnostics heading are sensitivities, not tests, and are not differenced; the three technologist occupations were selected on the outcome.

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file; U.S. Bureau of Labor Statistics, OEWS May 2025 and May 2024 national estimates; author's estimates. Units: occupations; percent; percentage points; shares of occupation pairs; squared log units for variances. Basis: ACS establishment-comparable universe, allocated values included unless stated; annual wages unless hourly is named.

Table 6

Share of pairs favoring the median and net variance ratio after omitting the one to five occupations with the largest ACS mean-to-median ratios, ACS 2024 against OEWS May 2025.

k	Occupation omitted at this step (ACS mean/median)	Pairs	Pairs favoring the median	Permutation *p*	Bootstrap 95% CI	Occupations favoring the median in a majority of their pairs (permutation *p*)	Net variance ratio (bootstrap 95% CI)
0	None	666	430 (64.6%)	.009	[51.9%, 75.8%]	29 of 37 (.021)	2.31 (1.20 to 5.66)
1	Cardiovascular technologists and technicians (1.95)	630	395 (62.7%)	.022	[49.8%, 74.1%]	28 of 36 (.048)	1.75 (1.10 to 3.64)
2	Magnetic resonance imaging technologists (1.70)	595	361 (60.7%)	.049	[47.8%, 72.2%]	25 of 35 (.102)	1.33 (1.02 to 1.96)
3	Diagnostic medical sonographers (1.38)	561	332 (59.2%)	.085	[45.6%, 71.5%]	25 of 34 (.100)	1.24 (0.96 to 1.70)
4	Chiropractors (1.33)	528	300 (56.8%)	.146	[43.4%, 69.3%]	23 of 33 (.114)	1.18 (0.92 to 1.57)
5	Pharmacy aides (1.22)	496	279 (56.3%)	.176	[42.1%, 69.6%]	23 of 32 (.153)	1.16 (0.90 to 1.52)

Note. Occupations were omitted cumulatively in descending order of the ACS 2024 ratio of the mean to the median wage (all wages, establishment-comparable universe), so each row omits its own occupation and those in the rows above it. Selection is on the outcome: the ordering uses the ACS means that enter the comparison, so these rows are sensitivity analyses rather than tests, and their *p* values and intervals do not account for the selection. For scale, across all 7,770 ways of omitting three of the 37 occupations the median share of pairs favoring the median was 64.5%, and 0.14% of those omissions gave a share at or below 59.2%. Measures are as in Table 2. Permutation *p* values are one-sided in the direction of the median, exchange each occupation's centered log(ACS/OEWS) at the mean and at the median, and refer the majority count to the same distribution; each row uses 200,000 draws (seed 20260916), with Monte Carlo standard errors of .0002 to .0009 for the share of pairs, and *p* values are printed to three decimals. Bootstrap intervals resample occupations (20,000 draws, seed 20260915, percentile method) and recompute the net variance ratio in each resample. The k = 0 row uses the same draws as the other rows; Table 2 reports the original 5,000-draw run ($p = .008$; bootstrap 95% CI [52.2%, 75.6%]; net variance ratio interval 1.2 to 5.6), which differs from this row by Monte Carlo error. Omitting instead the five occupations whose ACS

mean exceeded the OEWS mean (cardiovascular technologists and technicians, magnetic resonance imaging technologists, paramedics, diagnostic medical sonographers and chiropractors) left 270 of 496 pairs favoring the median (54.4%; permutation $p = .236$, 20,000 draws) and a net variance ratio of 1.09 (0.88 to 1.63).

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file; U.S. Bureau of Labor Statistics, OEWS May 2025 national estimates; author's estimates. Units: shares of occupation pairs; ratio of occupation-specific variances of log(ACS/OEWS), net of ACS sampling variance. Basis: ACS establishment-comparable universe, allocated values included.

Table 7

Comparability of the median against a mean capped by a pre-stated rule, ACS 2024 against OEWS May 2025.

Panel A. The uncapped median against the capped mean

Cap	Records capped (weighted share)	Pairs favoring the median, of 666	Permutation *p* (Holm-adjusted)	Bootstrap 95% CI	Occupations favoring the median in a majority of their pairs (permutation *p*; Holm-adjusted)	Net variance ratio (bootstrap 95% CI)	Occupations with the median closer in level (two-sided *p*)	Fall from 64.6% of pairs, points (paired bootstrap 95% CI)
State top-code threshold	603 (0.53%)	408 (61.3%)	.030 (.060)	[48.7%, 72.9%]	26 of 37 (.106; .212)	1.78 (1.06 to 3.87)	12 of 37 (.047)	3.3 (−1.4 to 8.3)
95th percentile of the occupation	5,531 (4.90%)	408 (61.3%)	.034 (.060)	[48.4%, 73.4%]	26 of 37 (.110; .212)	2.21 (1.05 to 5.58)	26 of 37 (.020)	3.3 (−4.3 to 10.7)
97.5th percentile of the occupation	2,859 (2.54%)	443 (66.5%)	.004 (.014)	[53.9%, 77.4%]	30 of 37 (.014; .072)	2.39 (1.21 to 5.93)	14 of 37 (.188)	−2.0 (−7.4 to 3.3)
99th percentile of the occupation	1,118 (0.99%)	449 (67.4%)	.002 (.010)	[54.9%, 78.2%]	29 of 37 (.027; .081)	2.45 (1.27 to 5.96)	13 of 37 (.099)	−2.9 (−7.7 to 1.4)
99.5th percentile of the occupation	562 (0.49%)	440 (66.1%)	.005 (.014)	[53.2%, 77.3%]	30 of 37 (.018; .074)	2.39 (1.23 to 5.81)	13 of 37 (.099)	−1.5 (−4.9 to 1.9)

Panel B. The capped mean against the uncapped mean

Cap	Records capped (weighted share)	Pairs favoring the capped mean, of 666	Permutation *p* (Holm-adjusted)	Bootstrap 95% CI	Occupations favoring the capped mean in a majority of their pairs (permutation *p*; Holm-adjusted)	Net variance ratio (bootstrap 95% CI)	Occupations with the capped mean closer in level (two-sided *p*)
State top-code threshold	603 (0.53%)	451 (67.7%)	.004 (.022)	[53.9%, 79.7%]	30 of 37 (.027; .137)	1.30 (1.11 to 1.47)	5 of 37 (< .001)
95th percentile of the occupation	5,531 (4.90%)	379 (56.9%)	.132 (.527)	[44.8%, 68.8%]	25 of 37 (.155; .621)	1.05 (0.96 to 1.22)	5 of 37 (< .001)
97.5th percentile of the occupation	2,859 (2.54%)	249 (37.4%)	.971 (1.00)	[24.2%, 51.6%]	6 of 37 (.979; 1.00)	0.96 (0.91 to 1.03)	5 of 37 (< .001)
99th percentile of the occupation	1,118 (0.99%)	187 (28.1%)	> .99 (1.00)	[18.5%, 39.3%]	3 of 37 (> .99; 1.00)	0.94 (0.90 to 0.97)	5 of 37 (< .001)
99.5th percentile of the occupation	562 (0.49%)	213 (32.0%)	> .99 (1.00)	[21.8%, 44.0%]	3 of 37 (> .99; 1.00)	0.96 (0.94 to 0.98)	5 of 37 (< .001)

Panel C. Fixed-dollar caps from Table 2, chosen after the upper tail was examined (post hoc; for comparison only)

Cap	Median against the capped mean: pairs favoring the median (share; permutation *p*; Holm-adjusted across six caps)	Capped mean against the uncapped mean: pairs favoring the capped mean (share; permutation *p*; Holm-adjusted across six caps)
$150,000	345 (51.8%; .388; .610)	416 (62.5%; .044; .044)
$200,000	355 (53.3%; .305; .610)	438 (65.8%; .011; .023)
$250,000	372 (55.9%; .163; .489)	446 (67.0%; .006; .022)
$300,000	390 (58.6%; .081; .322)	446 (67.0%; .006; .022)
$400,000	409 (61.4%; .031; .155)	456 (68.5%; .002; .012)
$500,000	418 (62.8%; .020; .120)	464 (69.7%; .001; .007)

Note. The rule was recorded on September 15, 2026, before it was computed and after the fixed-dollar caps in Table 2 had been examined: "Each record's wage and salary income is capped at the wage top-coding threshold that the Census Bureau publishes for the record's state in the 2024 ACS PUMS top-coded values file. As a pre-stated grid, each occupation's wages are alternatively capped at that occupation's weighted 95th, 97.5th, 99th and 99.5th percentiles, and p values are Holm-adjusted across the five grid points." The file gives each state a wage threshold and a replacement

amount; in these data every wage above its state's threshold equals that state's replacement amount, so the state rule replaces the 603 top-coded wages (0.54% of 112,137 records) with their state's threshold and changes no other wage. Thresholds for the 50 states and the District of Columbia in the data range from $240,000 (New Mexico, West Virginia) to $700,000 (District of Columbia). Percentile caps are computed within each occupation from the same weighted records as the mean, and recomputed with each replicate weight; they ranged from $55,261 to $575,474 at the 95th percentile and from $84,601 to $736,357 at the 99.5th. No cap changed any occupation's median, so every row compares against the uncapped median. In panel A each row compares the uncapped median with the capped mean; in panel B the capped mean with the uncapped mean, so a share above 50% favors the capped mean. Measures are as in Table 2. Permutation *p* values are one-sided in the direction of the first-named statistic and use 200,000 draws; bootstrap intervals resample occupations (20,000 draws, percentile method) and recompute the net variance ratio; both use the same draws in every row (numpy default_rng, seed 20260917), and Monte Carlo standard errors are at most .0008 for the unadjusted and .003 for the Holm-adjusted permutation *p* values. Holm adjustment is across the five caps, separately for the pair-share and majority *p* values of each panel; with all ten pair-share *p* values adjusted together, the smallest adjusted *p* in panel A is .020 and the state-threshold row of panel B is .035. By the rule stated in advance, a statistic is called more comparable only when its Holm-adjusted pair-share *p* is below .05 and its bootstrap interval lies above 50%. Level counts are tested with a two-sided exact binomial. The fall from 64.6% in panel A is the uncapped share minus the capped row's share on the same bootstrap resamples; a negative fall is a rise. The net variance ratio is an upper bound, because the replicate variance subtracted omits imputation variance. In the three technologist occupations, where 4.0% to 8.4% of records carry a state top-code amount, the 97.5th to 99.5th percentile caps were $550,000 or more, whereas the state rule capped those records at their states' thresholds. Panel C repeats the fixed-dollar caps of Table 2 on the same 200,000 draws with Holm adjustment across the six thresholds; those thresholds, including $250,000, were chosen after the upper tail was examined and remain post hoc, and their unadjusted *p* values can differ from Table 2's 5,000-draw values in the last digit. A capped mean is not the OEWS mean concept, so every row is a sensitivity analysis, not an estimate of what OEWS measures.

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file and 2024 ACS PUMS top-coded and bottom-coded values file (U.S. Census Bureau, 2025c); U.S. Bureau of Labor Statistics, OEWS May 2025 national estimates; author's estimates. Units: shares of occupation pairs; ratio of occupation-specific variances of log(ACS/OEWS), net of ACS sampling variance; percentage points. Basis: ACS establishment-comparable universe, allocated values included, wages in 2024 dollars.

Table 8

Pre-stated replication of the comparability test on the ACS 2023 one-year PUMS, with the ACS 2024 result beside it.

Measure	ACS 2023 against OEWS May 2024	ACS 2023 against OEWS May 2023	ACS 2023 against OEWS May 2025	ACS 2024 against OEWS May 2025
Role in the pre-stated plan	Primary: the success criterion is applied here	Sensitivity: OEWS reference month inside the ACS income period	Descriptive: OEWS release of record held fixed	In-sample result (Table 2)
Occupations (pairs); dropped because a release lacks a published mean or median	37 (666); none	37 (666); none	37 (666); none	37 (666); none
Pairs in which the median was more comparable (one-sided permutation *p*; bootstrap 95% CI)	347 of 666 (52.1%; $p = .37$; [37.7%, 65.3%])	381 of 666 (57.2%; $p = .15$; [43.0%, 70.4%])	372 of 666 (55.9%; $p = .17$; [42.3%, 68.3%])	430 of 666 (64.6%; $p = .008$; [52.2%, 75.6%])
Share above 50% and permutation *p* below .05 (the criterion; a verdict for the primary column only)	No	No	No	Yes
Occupations for which the median was more comparable in a majority of pairs (permutation *p*)	17 of 37 ($p = .52$)	20 of 37 ($p = .37$)	17 of 37 ($p = .54$)	29 of 37 ($p = .02$)
5,000 random partitions into 18 disjoint pairs: median *p*; share of partitions with $p < .05$	.59; 3%	.41; 9%	.41; 8%	.12; 32%
Occupation-specific variance of log(ACS/OEWS) net of ACS sampling variance, mean / median; ratio [bootstrap 95% CI] (permutation *p* for the ratio of standard deviations)	0.042 / 0.017; 2.44 [1.00, 5.91] ($p = .03$)	0.044 / 0.018; 2.47 [1.07, 6.17] ($p = .01$)	0.042 / 0.018; 2.39 [1.04, 5.58] ($p = .02$)	0.041 / 0.018; 2.31 [1.19, 5.57] ($p = .002$)
Occupations in which the median was closer than the mean for the single-occupation wage level (two-sided exact binomial *p*)	13 of 37 ($p = .10$)	13 of 37 ($p = .10$)	11 of 37 ($p = .02$)	9 of 37 ($p = .003$)
Occupations with the ACS median below the OEWS median; average shortfall at the median, % (replicate SE; between-occupation SE)	36 of 37; 19.0 (0.5; 1.8)	35 of 37; 15.5 (0.5; 2.0)	36 of 37; 22.1 (0.5; 1.8)	36 of 37; 19.7 (0.5; 1.8)

Measure	ACS 2023 against OEWS May 2024	ACS 2023 against OEWS May 2023	ACS 2023 against OEWS May 2025	ACS 2024 against OEWS May 2025
Occupations with the ACS mean below the OEWS mean; average shortfall at the mean, % (replicate SE; between-occupation SE)	32 of 37; 12.3 (0.5; 3.0)	31 of 37; 9.2 (0.5; 3.2)	32 of 37; 15.6 (0.5; 2.9)	32 of 37; 12.7 (0.4; 3.0)
Occupations not in the preliminary run (16) / pairs involving at least one of them / the 21 in it: pairs favoring the median (permutation *p*)	44 of 120 (36.7%; .89) / 213 of 456 (46.7%; .67) / 134 of 210 (63.8%; .05)	53 of 120 (44.2%; .71) / 241 of 456 (52.9%; .36) / 140 of 210 (66.7%; .03)	48 of 120 (40.0%; .82) / 231 of 456 (50.7%; .48) / 141 of 210 (67.1%; .01)	69 of 120 (57.5%; .27) / 278 of 456 (61.0%; .07) / 152 of 210 (72.4%; < .001)
Occupations among the 16 favoring the median in a majority of their 15 pairs (permutation *p*)	2 of 16 ($p = .97$)	6 of 16 ($p = .72$)	3 of 16 ($p = .91$)	10 of 16 ($p = .39$)
Diagnostics rerun for each column (sensitivities, not tests)				
Share of pairs favoring the median across sample-size floors of 200 to 500 records; omitting any one occupation; net variance ratio omitting any one occupation	49.6% to 52.1%; 49.4% to 54.3%; 1.69 to 3.06	54.7% to 57.2%; 54.9% to 60.0%; 1.74 to 2.99	53.3% to 55.9%; 53.5% to 57.9%; 1.67 to 2.85	63.5% to 64.6%; 62.7% to 66.8%; 1.75 to 2.83
Excluding the two pooled codes: pairs favoring the median (permutation *p*); net variance ratio	314 of 595 (52.8%; $p = .35$); 2.45	339 of 595 (57.0%; $p = .17$); 2.45	328 of 595 (55.1%; $p = .22$); 2.40	385 of 595 (64.7%; $p = .009$); 2.29
Omitting MRI technologists, cardiovascular technologists and sonographers (selected on the 2024 outcome, kept fixed): pairs favoring the median (permutation *p*); net variance ratio	246 of 561 (43.9%; $p = .83$); 1.07	280 of 561 (49.9%; $p = .51$); 1.13	274 of 561 (48.8%; $p = .58$); 1.10	332 of 561 (59.2%; $p = .08$); 1.24
ACS wages capped at $250,000: pairs favoring the median (permutation *p*); net variance ratio	336 of 666 (50.5%; $p = .47$); 1.38	358 of 666 (53.8%; $p = .27$); 1.44	340 of 666 (51.1%; $p = .43$); 1.39	372 of 666 (55.9%; $p = .16$); 1.43
Reported wages only: pairs favoring the median (permutation *p*); net variance ratio	246 of 666 (36.9%; $p = .98$); 0.94	273 of 666 (41.0%; $p = .91$); 0.96	285 of 666 (42.8%; $p = .86$); 0.97	358 of 666 (53.8%; $p = .30$); 1.14
Three technologist occupations, ACS file of the column: records with wages of $250,000 or more; of which allocated; records at their state's top-code value	208; 204 (98%); 106	208; 204 (98%); 106	208; 204 (98%); 106	227; 218 (96%); 122
Difference from the in-sample result (paired occupation bootstrap 95% CI; descriptive, not a test of change over time)				
Share of pairs favoring the median, percentage points	−12.5 [−22.3, −3.4]	not computed	−8.7 [−16.7, −1.1]	
Net variance ratio	+0.14 [−0.55, +0.91]	not computed	+0.08 [−0.65, +0.61]	
Pairs with the same verdict as in the in-sample result	479 of 666 (71.9% [61.8%, 81.2%])	not computed	not computed	

Note. The replication plan was written, and its file hashed (SHA-256 b307a800be06…), on September 15, 2026, before any ACS 2023 person record was read. It fixed the occupation set (the 37 occupations of Table 2, not re-derived from 2023 data), the primary pairing, the estimators and tests of Table 2, and the criterion: in the primary pairing, a share of pairs favoring the median above 50% with a one-sided permutation *p* below .05. Only the primary column carries a verdict; the other columns are reported as they fell. Before any 2023 figure was computed, the same code reproduced the ACS 2024 results against OEWS May 2025 (the last column, identical to Table 2) and against OEWS May 2024 (Table 5). The primary pairing matches the ACS income year to the OEWS release one year later, the lag used in the rest of this report; the OEWS May 2023 reference month falls inside the ACS 2023 income period; the OEWS May 2025 column holds the release of record fixed, so its difference from the last column reflects the change of ACS year. ACS 2023 wages are 2023 income adjusted by the Census income adjustment factor (1.019518 on every record). Occupation rules 1 to 3 select 43 codes against OEWS May 2024 and 43 against May 2023, and every one of the 37 has a published mean and median in all three releases. In the ACS 2023 file the smallest of the 37 occupations had 334 records (pharmacy aides), so none fell below the 300-record floor; rule 4 applied to 2023 counts would select the same 37. Permutation, bootstrap and partition procedures, random seeds and the 5,000 draws are those of Table 2; a permutation *p* from 5,000 draws has a Monte Carlo standard error of at most .007 (for the primary column, .0068). Replicate standard errors hold the occupations fixed and treat OEWS as fixed; between-occupation standard errors treat occupations as sampled. The difference rows apply one stream of 5,000 occupation resamples to both columns in every draw; they describe how the result varies with the occupations resampled. The replication is not independent of the in-sample analysis in every respect: the occupation set was fixed on ACS 2024 counts and the OEWS May 2025

file, the hypothesis was formed in-sample, the 16 occupations outside the preliminary run had already been analyzed on 2024 data, OEWS May 2024 shares four of its six semiannual panels with May 2025 (BLS, 2025c), and Census allocation and top-coding are applied in each year's file. It tests whether the result held in a different ACS survey year, not whether the median is the more accurate statistic. The tail row counts establishment-comparable records with nominal wages of $250,000 or more and records equal to their state's top-code value in that year's Census file; the 2023 and 2024 top-code values differ in 51 of the 52 areas listed (the 50 states, the District of Columbia and Puerto Rico).

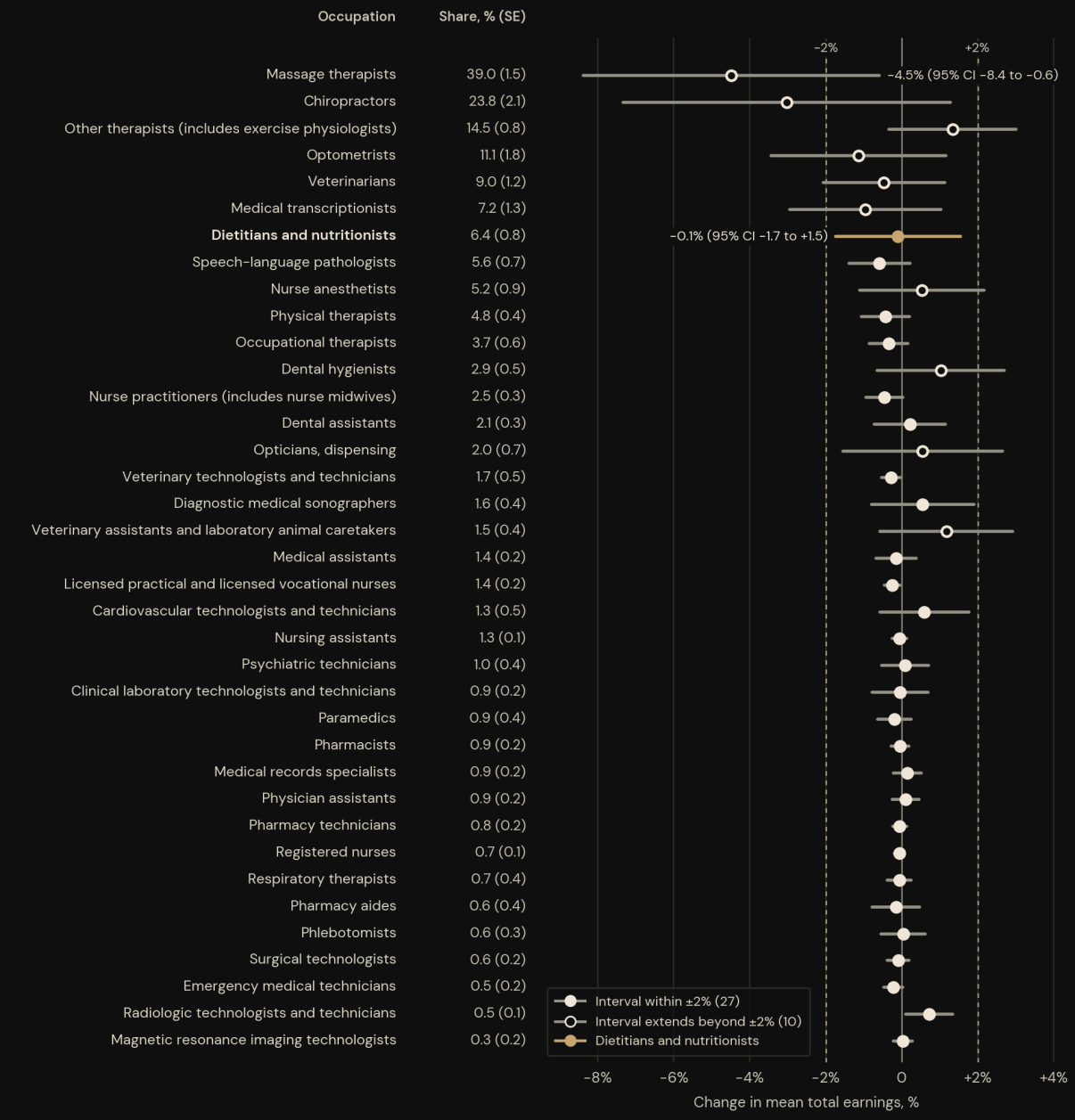
Source. U.S. Census Bureau, American Community Survey 2023 and 2024 one-year PUMS person files and the 2023 and 2024 PUMS top-coded values files; U.S. Bureau of Labor Statistics, OEWS May 2023, May 2024 and May 2025 national estimates; author's estimates. Units: shares of occupation pairs; percent; squared log units for variances. Basis: ACS establishment-comparable universe (classes of worker 1 to 5 and 7, positive wages), allocated values included unless stated; annual wages; income adjusted to the ACS file's own year.

Figures

Figure 1. In 27 of 37 health occupations, the 95% interval for the change in mean earnings from adding the unincorporated self-employed lies within ±2%. Points are changes in weighted mean total earnings when the unincorporated self-employed, whom OEWS does not cover, are added to the establishment-comparable universe of the ACS 2024 one-year PUMS; lines are 95% confidence intervals from the 80 replicate weights, and occupations are ordered by the excluded share. The result takes self-employment income as reported; the self-employed underreport it on average (Hurst et al., 2014), which would change the largest estimates (Table 4). Source: U.S. Census Bureau, ACS 2024 one-year PUMS; author's estimates; values in Table S1.

In 27 of 37 health occupations, the 95% interval for the change in mean earnings from adding the unincorporated self-employed lies within ±2%

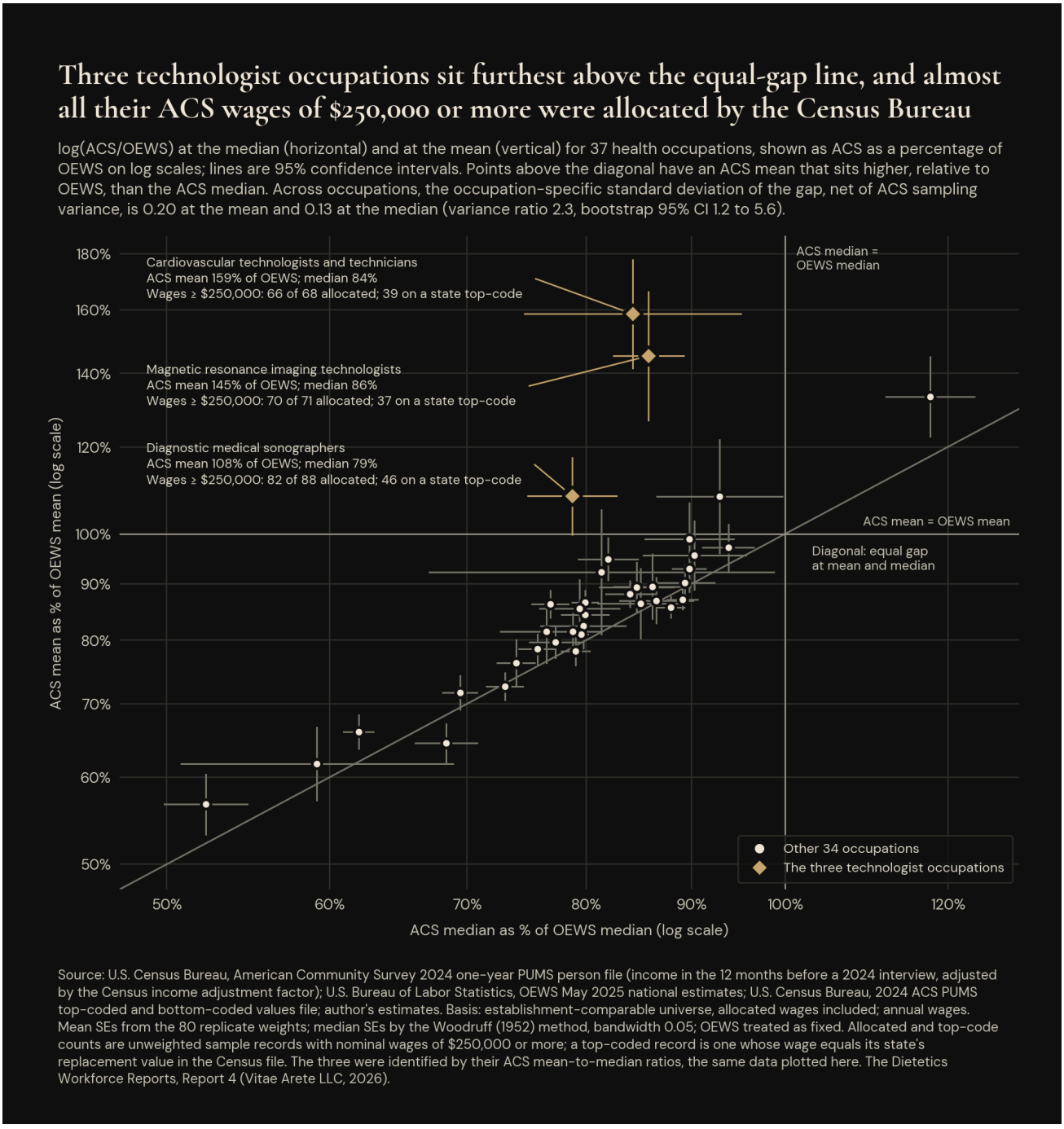
Change in weighted mean total earnings (wage and salary plus self-employment income) when unincorporated self-employed workers, whom OEWS does not cover, are added to the establishment-comparable universe. Points are estimates; lines are 95% confidence intervals from the 80 replicate weights. Occupations are sorted by the unincorporated self-employed share of civilian employment, shown with its SE.



Source: U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file (income in the 12 months before a 2024 interview, adjusted by the Census income adjustment factor); author's estimates. Basis: civilian employed; establishment-comparable universe is classes of worker 1 to 5 and 7 with positive wages; both groups valued at total earnings. Self-employment income is taken as reported; the self-employed underreport it to household surveys by about 25% on average (Hurst et al., 2014), which would change the largest estimates. The ±2% lines are descriptive cut points chosen after estimation. Standard errors exclude imputation variance. The Dietetics Workforce Reports, Report 4 (Vitae Arete LLC, 2026).

Across 37 health occupations sorted by the share of workers who are unincorporated self-employed, the 95% interval for the change in mean total earnings from adding them lies entirely within plus or minus 2% in 27. The largest change is −4.5% for massage therapists, 39.0% of whom are unincorporated self-employed (95% CI −8.4% to −0.6%). Dietitians and nutritionists change by −0.1% (95% CI −1.7% to +1.5%). ACS 2024.

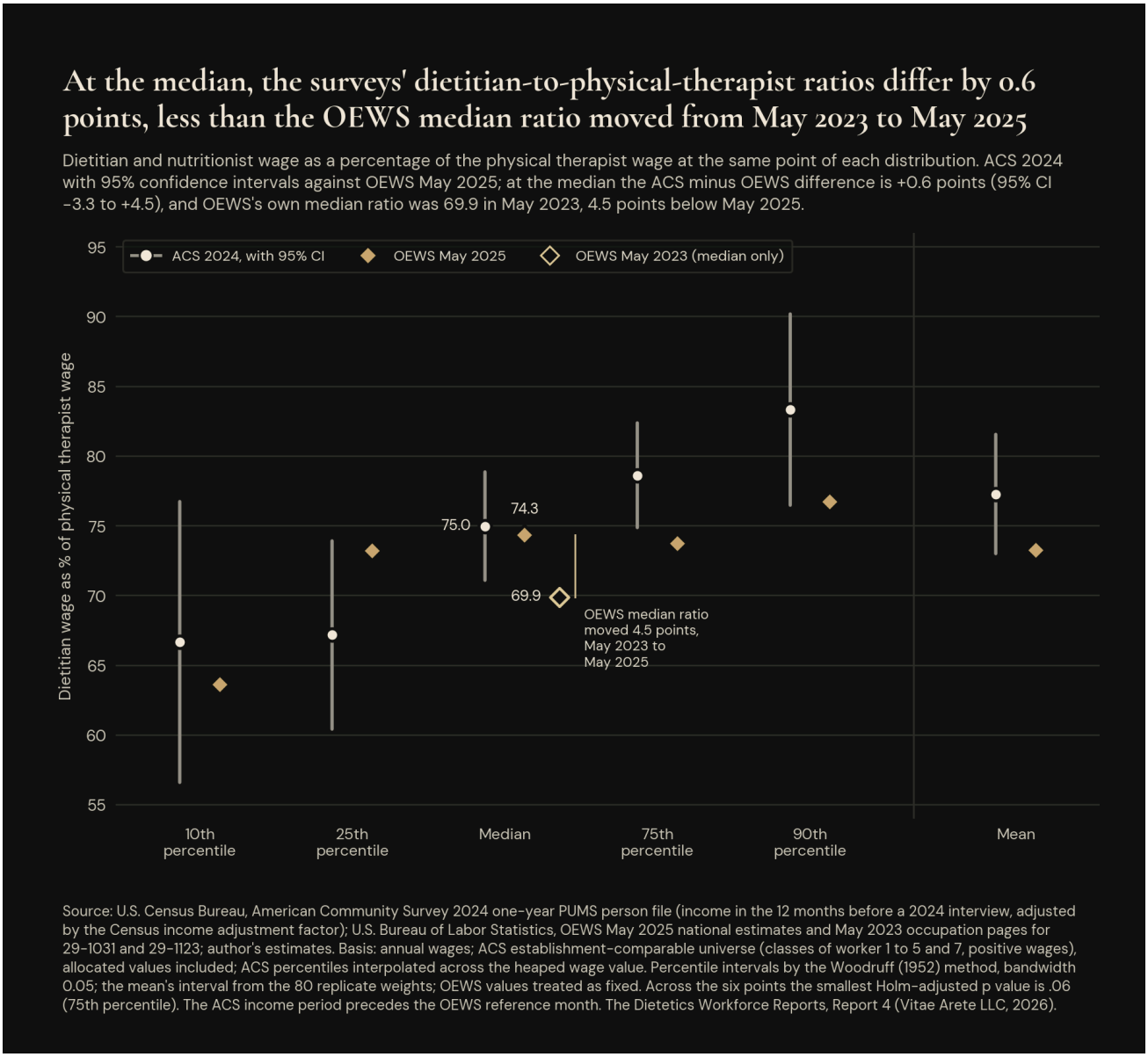
Figure 2. Three technologist occupations sit furthest above the equal-gap line, and almost all their ACS wages of $250,000 or more were allocated by the Census Bureau. Each point is one of 37 health occupations: ACS 2024 as a percentage of OEWS May 2025 at the median (horizontal) and at the mean (vertical), with 95% confidence intervals (Woodruff for medians, replicate weights for means). Allocated and top-code counts are unweighted records with wages of $250,000 or more, matched to the Census 2024 top-coded values file. The three occupations were identified from the same ACS means, so the pattern is descriptive (Table 6). Source: U.S. Census Bureau, ACS 2024 one-year PUMS and 2024 top-coded values file; BLS, OEWS May 2025; author's estimates; values in Tables S1 and S3.



In 36 of 37 health occupations the ACS 2024 median is below the OEWS May 2025 median, and gaps spread more widely at the mean than at the median. Three technologist occupations sit furthest above the equal-gap line: cardiovascular technologists have an ACS mean 159% of OEWS and a median 84%; MRI technologists 145% and 86%; sonographers 108% and 79%. Of their wages of $250,000 or more, 66 of 68, 70 of 71 and 82 of 88 were allocated by the Census Bureau, and 39, 37 and 46 equal a state top-code value.

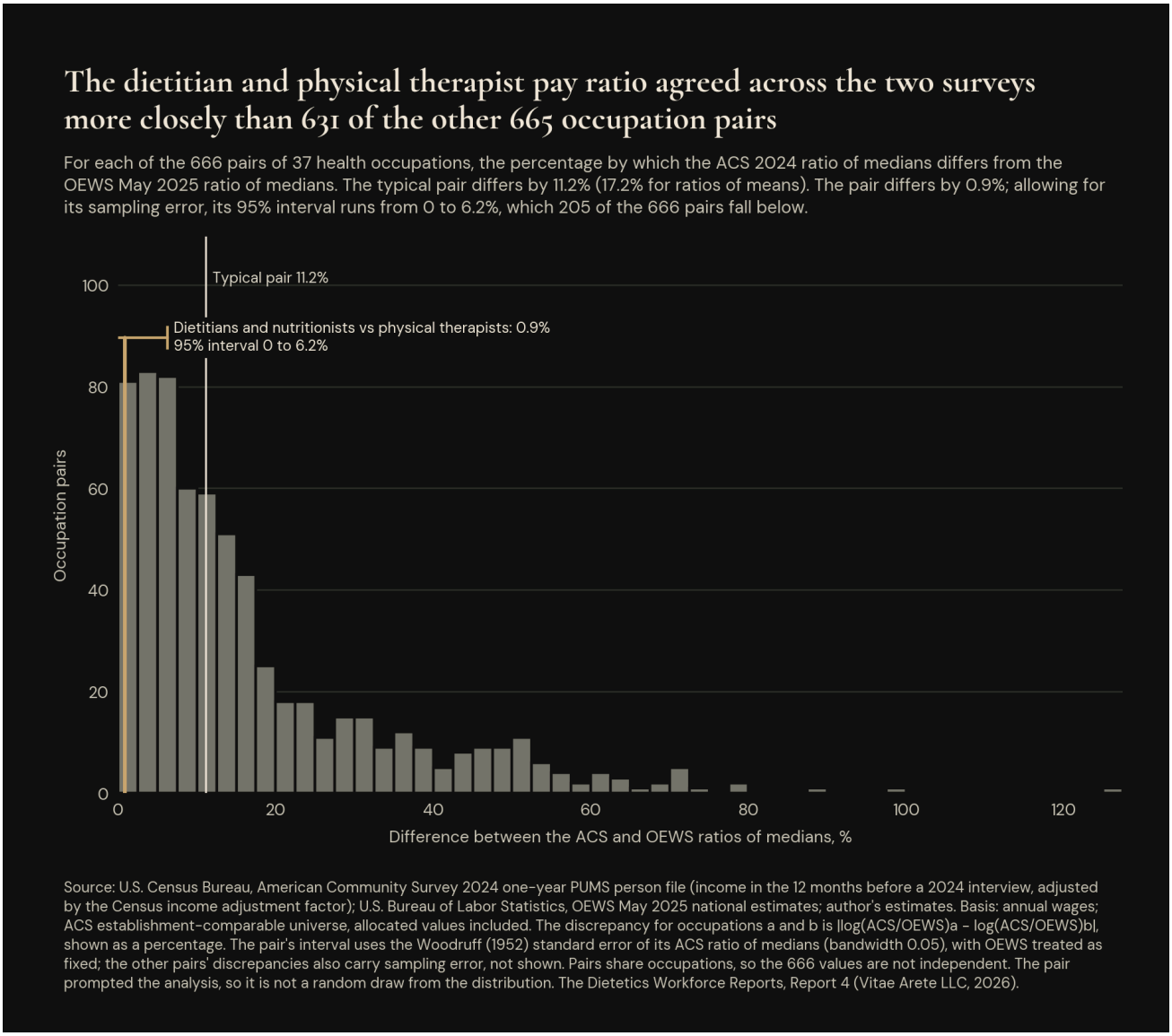
Figure 3. At the median, the surveys' dietitian-to-physical-therapist ratios differ by 0.6 points, less than the OEWS median ratio moved from May 2023 to May 2025. Dietitian wage as a percentage of physical therapist wage at five percentiles and the mean, ACS 2024 (establishment-comparable universe, allocated values included) with 95% confidence intervals against OEWS May 2025, and OEWS May 2023 at the median. At the median the

difference between the surveys is +0.6 points (95% CI −3.3 to +4.5); OEWS values are treated as fixed, and after Holm adjustment across the six points the smallest p value is .06. Source: U.S. Census Bureau, ACS 2024 one-year PUMS; BLS, OEWS May 2025 national estimates and May 2023 occupation pages; author's estimates; values in Table 3.



Dietitian pay as a percentage of physical therapist pay at five percentiles and the mean. At the median the ACS 2024 ratio is 75.0% (95% CI 71.1 to 78.9) against 74.3% in OEWS May 2025, while the OEWS median ratio was 69.9% in May 2023, 4.5 points lower. The surveys differ most at the 25th percentile (−6.0 points) and the 90th percentile (+6.6 points), each with a wide interval.

Figure 4. The dietitian and physical therapist pay ratio agreed across the two surveys more closely than 631 of the other 665 occupation pairs. Histogram of the discrepancy between the ACS 2024 and OEWS May 2025 ratios of medians for all 666 pairs of the 37 occupations; the typical pair differs by 11.2%. The dietitian and physical therapist pair differs by 0.9%, with a 95% interval from 0 to 6.2%; it prompted the analysis, pairs share occupations, and each pair's discrepancy carries sampling error. Source: U.S. Census Bureau, ACS 2024 one-year PUMS; BLS, OEWS May 2025; author's estimates; values in Tables 2 and S1.



Across 666 pairs of 37 health occupations, the ACS 2024 and OEWS May 2025 ratios of medians typically differ by 11.2%, with a long right tail. The dietitian and physical therapist pair differs by 0.9%, closer than 631 of the other 665 pairs, although its 95% interval runs from 0 to 6.2%.

Appendix A. Supplementary tables S1 to S5

Tables S1 to S5 are rendered below by script from the deposited CSV files, whose column names are unique. Wide tables are split into panels that repeat the occupation code and name; every column of each file appears in one panel under its column name in the file. Minus signs and thousands separators are typographic, and every other character of each value is as in the file. Standard errors from the replicate weights exclude imputation variance, so they are lower bounds, and OEWS estimates are treated as fixed. On September 15, 2026, standard errors for the ACS means, medians and log ratios were added to Table S1, and the tests of the median change used in this report were added to Table S5, where the earlier replicate standard error of that change is retired and kept, labelled, for the record.

Table S1

All 37 occupations: coverage, annual wage levels, allocated wages and the upper tail, and hourly medians, ACS 2024 one-year PUMS against OEWS May 2025.

Panel A. Coverage by the unincorporated self-employed (class of worker 6).

OCCP	SOC	Occupation	Unweighted n (civilian employed, COW 1-7)	Unweighted n in COW 6	Share in excluded group (%)	Share in excluded group (%), SE (replicate)	Change in mean total earnings from adding the excluded group (%)	Change in mean total earnings from adding the excluded group (%), SE (replicate)	Excluded group mean total earnings relative to the establishment universe, % (SE)
3630	31-9011	Massage Therapists	1,932	813	38.97	1.54	−4.48	1.99	−11.6 (5.1)
3000	29-1011	Chiropractors	737	179	23.83	2.05	−3.03	2.20	−12.9 (9.4)
3245	29-1129	Other therapists (includes exercise physiologists)	2,659	435	14.55	0.83	+1.34	0.85	+9.3 (6.0)
3040	29-1041	Optometrists	562	71	11.08	1.80	−1.14	1.17	−10.6 (10.5)
3250	29-1131	Veterinarians	1,255	128	9.02	1.22	−0.47	0.82	−5.2 (9.2)
3646	31-9094	Medical Transcriptionists	488	43	7.19	1.27	−0.96	1.02	−13.4 (13.8)
3030	29-1031	Dietitians And Nutritionists	1,126	83	6.39	0.84	−0.10	0.84	−1.6 (13.6)
3230	29-1127	Speech-Language Pathologists	2,370	135	5.61	0.65	−0.59	0.41	−10.6 (7.6)
3256	29-1151	Nurse Anesthetists	580	34	5.18	0.92	+0.53	0.83	+10.2 (15.9)
3160	29-1123	Physical Therapists	3,262	162	4.77	0.40	−0.43	0.32	−9.0 (6.8)
3150	29-1122	Occupational Therapists	1,714	71	3.67	0.58	−0.35	0.26	−9.4 (7.0)
3310	29-1292	Dental Hygienists	2,250	65	2.86	0.46	+1.03	0.85	+36.0 (28.9)
3258	29-1171	Nurse practitioners (includes nurse midwives)	3,513	85	2.45	0.35	−0.46	0.24	−19.4 (10.4)
3640	31-9091	Dental Assistants	3,076	79	2.15	0.32	+0.22	0.48	+10.0 (22.0)
3520	29-2081	Opticians, Dispensing	770	15	2.01	0.66	+0.55	1.07	+27.3 (52.6)
3424	29-2056	Veterinary Technologists and Technicians	1,681	29	1.72	0.47	−0.28	0.13	−16.2 (7.6)
3322	29-2032	Diagnostic Medical Sonographers	1,161	16	1.63	0.40	+0.55	0.69	+33.8 (41.4)
3648	31-9096	Veterinary Assistants And Laboratory Animal Caretakers	859	16	1.53	0.42	+1.17	0.89	+76.9 (58.4)
3645	31-9092	Medical Assistants	5,830	72	1.44	0.22	−0.15	0.27	−10.4 (18.4)
3500	29-2061	Licensed Practical And Licensed Vocational Nurses	5,470	78	1.37	0.22	−0.25	0.11	−18.6 (7.4)
3321	29-2031	Cardiovascular Technologists and Technicians	475	9	1.33	0.47	+0.60	0.60	+54.2 (45.4)
3603	31-1131	Nursing Assistants	11,669	165	1.31	0.12	−0.05	0.10	−4.1 (7.5)
3422	29-2053	Psychiatric Technicians	1,432	10	1.00	0.42	+0.08	0.32	+8.2 (35.3)

OCCP	SOC	Occupation	Unweighted n (civilian employed, COW 1-7)	Unweighted n in COW 6	Share in excluded group (%)	Share in excluded group (%), SE (replicate)	Change in mean total earnings from adding the excluded group (%)	Change in mean total earnings from adding the excluded group (%), SE (replicate)	Excluded group mean total earnings relative to the establishment universe, % (SE)
3300	29-2010	Clinical Laboratory Technologists And Technicians	3,128	26	0.93	0.25	−0.04	0.38	−4.7 (41.8)
3402	29-2043	Paramedics	1,240	11	0.92	0.36	−0.20	0.23	−21.5 (21.8)
3050	29-1051	Pharmacists	3,882	38	0.91	0.19	−0.04	0.12	−4.7 (12.8)
3515	29-2072	Medical Records Specialists	1,926	24	0.88	0.22	+0.15	0.19	+17.1 (21.5)
3110	29-1071	Physician Assistants	1,767	23	0.85	0.19	+0.10	0.18	+11.8 (21.1)
3421	29-2052	Pharmacy Technicians	3,972	30	0.77	0.19	−0.06	0.09	−7.5 (12.4)
3255	29-1141	Registered Nurses	36,334	281	0.71	0.05	−0.06	0.06	−8.5 (9.0)
3220	29-1126	Respiratory Therapists	1,270	7	0.68	0.35	−0.06	0.16	−9.5 (23.2)
3647	31-9095	Pharmacy Aides	309	3	0.64	0.41	−0.15	0.32	−23.3 (46.0)
3649	31-9097	Phlebotomists	1,126	8	0.64	0.26	+0.04	0.30	+6.0 (47.9)
3423	29-2055	Surgical Technologists	1,084	7	0.57	0.24	−0.09	0.15	−16.1 (29.4)
3401	29-2042	Emergency Medical Technicians	1,439	8	0.50	0.21	−0.22	0.13	−44.7 (19.6)
3323	29-2034	Radiologic Technologists And Technicians	2,544	17	0.48	0.11	+0.72	0.31	+158.9 (55.4)
3324	29-2035	Magnetic Resonance Imaging Technologists	525	4	0.27	0.16	+0.04	0.13	+12.9 (51.0)

Panel B. Annual wage levels, ACS 2024 against OEWS May 2025.

OCCP	Occupation	ACS mean ($)	ACS mean ($), SE (replicate)	OEWS mean ($)	ACS median ($)	ACS median ($), SE (Woodruff, bandwidth 0.05)	OEWS median ($)	log(ACS/OEWS) at mean	log(ACS/OEWS) at mean, SE (replicate)	log(ACS/OEWS) at median	log(ACS/OEWS) at median, SE (Woodruff, bandwidth 0.05)
3630	Massage Therapists	36,192	1,162	63,830	30,525	725	58,450	−0.5674	0.0321	−0.6496	0.0237
3000	Chiropractors	97,917	5,941	90,520	73,586	2,639	79,200	+0.0785	0.0607	−0.0735	0.0359
3245	Other therapists (includes exercise physiologists)	58,319	1,186	90,420	53,291	935	77,930	−0.4385	0.0203	−0.3800	0.0176
3040	Optometrists	140,027	5,380	141,550	122,640	3,101	136,570	−0.0108	0.0384	−0.1076	0.0253
3250	Veterinarians	138,656	3,393	142,680	122,036	1,797	130,100	−0.0286	0.0245	−0.0640	0.0147
3646	Medical Transcriptionists	25,748	1,006	41,710	23,906	1,858	40,410	−0.4824	0.0391	−0.5249	0.0777
3030	Dietitians And Nutritionists	63,604	1,521	77,130	60,910	1,468	76,400	−0.1928	0.0239	−0.2266	0.0241
3230	Speech-Language Pathologists	70,367	1,274	98,170	67,972	664	97,870	−0.3330	0.0181	−0.3645	0.0098
3256	Nurse Anesthetists	222,353	7,621	248,320	203,791	4,461	236,590	−0.1105	0.0343	−0.1492	0.0219

OCCP	Occupation	ACS mean ($)	ACS mean ($), SE (replicate)	OEWS mean ($)	ACS median ($)	ACS median ($), SE (Woodruff, bandwidth 0.05)	OEWS median ($)	log(ACS/OEWS) at mean	log(ACS/OEWS) at mean, SE (replicate)	log(ACS/OEWS) at median	log(ACS/OEWS) at median, SE (Woodruff, bandwidth 0.05)
3160	Physical Therapists	82,309	1,226	105,280	81,230	649	102,760	−0.2461	0.0149	−0.2351	0.0080
3150	Occupational Therapists	73,522	1,060	101,280	73,273	763	100,330	−0.3203	0.0144	−0.3143	0.0104
3310	Dental Hygienists	65,337	1,172	98,990	60,806	515	98,100	−0.4155	0.0179	−0.4783	0.0085
3258	Nurse practitioners (includes nurse midwives)	119,563	1,218	137,300	117,927	1,028	132,300	−0.1383	0.0102	−0.1150	0.0087
3640	Dental Assistants	38,311	926	50,200	35,542	379	48,070	−0.2703	0.0242	−0.3019	0.0106
3520	Opticians, Dispensing	49,507	1,808	51,770	42,683	1,249	47,260	−0.0447	0.0365	−0.1019	0.0293
3424	Veterinary Technologists and Technicians	39,127	657	49,120	36,607	534	47,380	−0.2275	0.0168	−0.2580	0.0146
3322	Diagnostic Medical Sonographers	105,270	4,320	97,240	76,066	1,918	96,590	+0.0793	0.0410	−0.2389	0.0252
3648	Veterinary Assistants And Laboratory Animal Caretakers	34,480	1,059	40,340	30,288	686	38,150	−0.1570	0.0307	−0.2308	0.0226
3645	Medical Assistants	39,961	485	46,120	36,500	270	45,690	−0.1433	0.0121	−0.2246	0.0074
3500	Licensed Practical And Licensed Vocational Nurses	52,656	833	67,050	48,767	509	64,400	−0.2417	0.0158	−0.2781	0.0104
3321	Cardiovascular Technologists and Technicians	122,012	7,068	76,940	62,619	3,873	74,310	+0.4611	0.0579	−0.1712	0.0618
3603	Nursing Assistants	36,868	531	42,700	32,468	340	42,260	−0.1469	0.0144	−0.2636	0.0105
3422	Psychiatric Technicians	37,959	1,263	46,610	34,538	917	45,130	−0.2053	0.0333	−0.2675	0.0265
3300	Clinical Laboratory Technologists And Technicians	59,363	827	67,350	52,882	734	62,930	−0.1262	0.0139	−0.1740	0.0139
3402	Paramedics	84,475	3,611	63,360	71,300	1,803	60,600	+0.2876	0.0427	+0.1626	0.0253
3050	Pharmacists	120,815	1,321	140,920	123,954	928	140,910	−0.1539	0.0109	−0.1282	0.0075
3515	Medical Records Specialists	51,237	969	56,790	45,679	783	51,140	−0.1029	0.0189	−0.1129	0.0171
3110	Physician Assistants	131,296	3,260	141,280	121,984	1,161	135,880	−0.0733	0.0248	−0.1079	0.0095
3421	Pharmacy Technicians	39,357	684	46,620	36,561	491	45,750	−0.1693	0.0174	−0.2242	0.0134
3255	Registered Nurses	82,094	376	101,420	77,589	312	97,550	−0.2114	0.0046	−0.2289	0.0040
3220	Respiratory Therapists	75,883	1,837	87,300	71,210	1,488	82,280	−0.1402	0.0242	−0.1445	0.0209
3647	Pharmacy Aides	37,343	2,484	40,450	30,668	3,017	37,680	−0.0799	0.0665	−0.2059	0.0984
3649	Phlebotomists	37,071	709	45,520	35,635	597	45,230	−0.2053	0.0191	−0.2384	0.0167

OCCP	Occupation	ACS mean ($)	ACS mean ($), SE (replicate)	OEWS mean ($)	ACS median ($)	ACS median ($), SE (Woodruff, bandwidth 0.05)	OEWS median ($)	log(ACS/OEWS) at mean	log(ACS/OEWS) at mean, SE (replicate)	log(ACS/OEWS) at median	log(ACS/OEWS) at median, SE (Woodruff, bandwidth 0.05)
3423	Surgical Technologists	59,370	2,203	68,710	54,953	1,329	64,650	−0.1461	0.0371	−0.1625	0.0242
3401	Emergency Medical Technicians	41,847	1,102	46,830	37,640	793	44,470	−0.1125	0.0263	−0.1667	0.0211
3323	Radiologic Technologists And Technicians	79,497	1,784	83,840	65,679	1,113	80,110	−0.0532	0.0224	−0.1986	0.0169
3324	Magnetic Resonance Imaging Technologists	139,588	9,595	96,120	81,920	1,635	95,480	+0.3731	0.0687	−0.1532	0.0200

Panel C. Allocated wages and the upper tail of the ACS file.

OCCP	Occupation	Weight share of records with allocated wages (%)	Records with nominal wage ≥ $250,000	Of which allocated (≥ $250,000)	Wage-bill share of records ≥ $250,000 (%)	Records with nominal wage ≥ $500,000	Of which allocated (≥ $500,000)	Wage-bill share of records ≥ $500,000 (%)
3630	Massage Therapists	24.0	3	0	2.9	2	0	1.9
3000	Chiropractors	16.9	32	9	26.7	9	4	16.4
3245	Other therapists (includes exercise physiologists)	19.8	17	6	4.4	1	0	0.3
3040	Optometrists	10.0	33	2	20.0	6	0	5.5
3250	Veterinarians	7.1	87	9	20.0	25	2	7.5
3646	Medical Transcriptionists	25.8	0	0	0.0	0	0	0.0
3030	Dietitians And Nutritionists	24.0	8	5	3.6	1	1	0.4
3230	Speech-Language Pathologists	16.5	8	2	2.9	6	2	2.5
3256	Nurse Anesthetists	15.3	174	21	48.0	26	4	14.2
3160	Physical Therapists	16.3	22	7	4.9	9	2	3.5
3150	Occupational Therapists	16.3	4	2	1.5	1	0	0.9
3310	Dental Hygienists	21.1	22	18	7.0	10	7	3.9
3258	Nurse practitioners (includes nurse midwives)	14.6	54	12	4.9	14	3	2.0
3640	Dental Assistants	29.2	12	10	4.5	8	6	4.3
3520	Opticians, Dispensing	25.6	3	2	2.5	1	0	0.9
3424	Veterinary Technologists and Technicians	25.4	3	2	1.6	1	0	0.7
3322	Diagnostic Medical Sonographers	28.6	88	82	34.6	39	35	18.3
3648	Veterinary Assistants And Laboratory Animal Caretakers	31.6	3	2	1.7	1	0	1.1

OCCP	Occupation	Weight share of records with allocated wages (%)	Records with nominal wage ≥ $250,000	Of which allocated (≥ $250,000)	Wage-bill share of records ≥ $250,000 (%)	Records with nominal wage ≥ $500,000	Of which allocated (≥ $500,000)	Wage-bill share of records ≥ $500,000 (%)
3645	Medical Assistants	29.1	20	5	3.9	10	2	2.9
3500	Licensed Practical And Licensed Vocational Nurses	27.3	24	6	3.8	15	2	2.9
3321	Cardiovascular Technologists and Technicians	43.7	68	66	51.9	28	26	26.0
3603	Nursing Assistants	31.7	35	3	5.3	18	0	3.1
3422	Psychiatric Technicians	24.1	6	2	4.9	1	1	0.9
3300	Clinical Laboratory Technologists And Technicians	22.8	9	1	2.1	2	0	1.1
3402	Paramedics	19.4	42	4	17.2	14	0	8.2
3050	Pharmacists	15.5	99	23	7.4	19	6	2.4
3515	Medical Records Specialists	21.7	6	3	2.3	2	1	0.9
3110	Physician Assistants	21.7	94	73	17.5	29	21	8.6
3421	Pharmacy Technicians	26.5	13	6	3.2	5	0	2.0
3255	Registered Nurses	20.0	264	78	3.7	73	14	1.4
3220	Respiratory Therapists	20.9	7	3	3.9	5	2	3.3
3647	Pharmacy Aides	34.6	1	0	1.6	0	0	0.0
3649	Phlebotomists	28.3	1	0	0.4	0	0	0.0
3423	Surgical Technologists	26.2	3	2	4.0	1	0	3.5
3401	Emergency Medical Technicians	24.6	7	3	4.5	6	2	4.1
3323	Radiologic Technologists And Technicians	24.2	80	74	17.2	38	34	8.7
3324	Magnetic Resonance Imaging Technologists	46.6	71	70	48.7	29	29	30.8

Panel D. Mean-to-median ratios and hourly medians.

OCCP	Occupation	ACS mean/median, all wages	ACS mean/median, reported wages	OEWS mean/median	ACS hourly median ($)	OEWS hourly median ($)	log(ACS/OEWS) hourly median
3630	Massage Therapists	1.186	1.183	1.092	23.35	28.10	−0.1851
3000	Chiropractors	1.331	1.282	1.143	40.95	38.08	+0.0727
3245	Other therapists (includes exercise physiologists)	1.094	1.092	1.160	29.27	37.47	−0.2470
3040	Optometrists	1.142	1.130	1.036	67.28	65.66	+0.0244
3250	Veterinarians	1.136	1.138	1.097	59.92	62.55	−0.0429
3646	Medical Transcriptionists	1.077	1.039	1.032	16.82	19.43	−0.1442
3030	Dietitians And Nutritionists	1.044	1.011	1.010	31.68	36.73	−0.1479

OCCP	Occupation	ACS mean/median, all wages	ACS mean/median, reported wages	OEWS mean/median	ACS hourly median ($)	OEWS hourly median ($)	log(ACS/OEWS) hourly median
3230	Speech-Language Pathologists	1.035	1.034	1.003	38.12	47.05	−0.2104
3256	Nurse Anesthetists	1.091	1.100	1.050	106.35	113.75	−0.0673
3160	Physical Therapists	1.013	1.003	1.025	41.53	49.40	−0.1736
3150	Occupational Therapists	1.003	1.006	1.009	39.11	48.24	−0.2099
3310	Dental Hygienists	1.075	0.998	1.009	37.34	47.16	−0.2335
3258	Nurse practitioners (includes nurse midwives)	1.014	0.986	1.038	58.49	63.61	−0.0839
3640	Dental Assistants	1.078	1.015	1.044	19.69	23.11	−0.1599
3520	Opticians, Dispensing	1.160	1.060	1.095	22.57	22.72	−0.0066
3424	Veterinary Technologists and Technicians	1.069	1.038	1.037	19.42	22.78	−0.1594
3322	Diagnostic Medical Sonographers	1.384	1.076	1.007	39.18	46.44	−0.1699
3648	Veterinary Assistants And Laboratory Animal Caretakers	1.138	1.020	1.057	16.41	18.34	−0.1111
3645	Medical Assistants	1.095	1.108	1.009	19.13	21.97	−0.1382
3500	Licensed Practical And Licensed Vocational Nurses	1.080	1.058	1.041	25.36	30.96	−0.1993
3321	Cardiovascular Technologists and Technicians	1.948	1.377	1.035	29.21	35.73	−0.2016
3603	Nursing Assistants	1.136	1.170	1.010	18.28	20.32	−0.1058
3422	Psychiatric Technicians	1.099	1.098	1.033	19.51	21.70	−0.1063
3300	Clinical Laboratory Technologists And Technicians	1.123	1.112	1.070	27.35	30.26	−0.1011
3402	Paramedics	1.185	1.197	1.046	29.23	29.13	+0.0034
3050	Pharmacists	0.975	0.963	1.000	63.47	67.75	−0.0652
3515	Medical Records Specialists	1.122	1.082	1.110	22.69	24.59	−0.0803
3110	Physician Assistants	1.076	0.992	1.040	60.66	65.33	−0.0741
3421	Pharmacy Technicians	1.076	1.037	1.019	19.54	22.00	−0.1188
3255	Registered Nurses	1.058	1.042	1.040	40.68	46.90	−0.1422
3220	Respiratory Therapists	1.066	1.058	1.061	37.49	39.56	−0.0538
3647	Pharmacy Aides	1.218	1.173	1.074	18.24	18.12	+0.0066
3649	Phlebotomists	1.040	1.032	1.006	19.09	21.75	−0.1305
3423	Surgical Technologists	1.080	1.085	1.063	28.17	31.08	−0.0983
3401	Emergency Medical Technicians	1.112	1.104	1.053	18.83	21.38	−0.1269
3323	Radiologic Technologists And Technicians	1.210	1.070	1.047	34.15	38.52	−0.1203
3324	Magnetic Resonance Imaging Technologists	1.704	1.004	1.007	43.86	45.91	−0.0457

Units. Unweighted n and record counts are person records. Shares, changes, relative earnings, the allocated share and wage-bill shares are percentages, and their standard errors are in percentage points. Dollar figures are annual wages in dollars and hourly medians are dollars per hour. Log ratios are natural logarithms. Mean-to-median ratios have no unit.

Basis. Civilian employed respondents. Unweighted n and the excluded share cover classes of worker 1 to 7; the excluded group is class of worker 6, the unincorporated self-employed. The change adds that group, with positive total earnings, to the establishment-comparable universe (classes of worker 1 to 5 and 7 with positive wage and salary income), valuing both at total earnings; relative earnings compare the two groups' mean total earnings, with the standard error in parentheses. Wage levels, allocation and tail columns use wage and salary income in the establishment-comparable universe, 2024 income adjusted by the Census income adjustment factor, allocated values included; ACS medians are interpolated across the wage value that contains them. The $250,000 and $500,000 thresholds apply to nominal (unadjusted) wages; record counts are unweighted, the allocated counts are records whose wage the Census Bureau allocated (FWAGP), and the allocated share and wage-bill shares are weighted. The reported-wage ratio leaves out allocated wages. The hourly median divides wage and salary income by usual hours worked per week times weeks worked and is compared with the OEWS hourly median. Standard errors marked replicate use successive-difference replication with the 80 person replicate weights; they exclude imputation variance, so they are lower bounds. The ACS median and the log ratio at the median carry Woodruff (1952) standard errors with a bandwidth of 0.05. The log ratio at the mean carries the replicate standard error of the ACS mean divided by that mean; taking the replicate standard error of the log itself instead changes the fourth decimal in 10 of the 37 rows and changes no other figure. The hourly medians and mean-to-median ratios are shown without standard errors. OEWS estimates are treated as fixed. Code 3245 is compared with OEWS 29-1129 and code 3258 with 29-1171 (Table 1 note). Rows are in descending order of the excluded share.

Source and vintage. U.S. Census Bureau, American Community Survey 2024 one-year Public Use Microdata Sample, person file (csv_pus.zip, Last-Modified December 4, 2025); U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2025 national estimates (national_M2025_dl.xlsx); author's estimates computed September 10, 2026, with the standard errors of the ACS means, medians and log ratios added September 15, 2026. File: `TABLE_S1_all_37_occupations_2026-09-15.csv`.

Table S2

All 56 health occupation codes: the inclusion rules and the coverage estimator, ACS 2024 one-year PUMS.

Panel A. Inclusion rules and weight.

OCCP	Occupation (2024 PUMS label)	Unweighted n (civilian employed, COW 1-7)	Unweighted n in COW 6	Passes rules 1-3	Meets 300-record floor (rule 4)	Below 300-record floor	In the 37-occupation set	Weighted share of civilian employment across the 56 codes (%)
3000	Chiropractors	737	179	yes	yes	no	yes	0.44
3010	Dentists	2,062	300	no	yes	no	no	1.18
3030	Dietitians And Nutritionists	1,126	83	yes	yes	no	yes	0.68
3040	Optometrists	562	71	yes	yes	no	yes	0.31
3050	Pharmacists	3,882	38	yes	yes	no	yes	2.36
3090	Physicians	10,524	584	no	yes	no	no	6.11
3100	Surgeons	693	24	no	yes	no	no	0.38
3110	Physician Assistants	1,767	23	yes	yes	no	yes	1.10
3120	Podiatrists	140	27	yes	no	yes	no	0.08
3140	Audiologists	226	8	yes	no	yes	no	0.13
3150	Occupational Therapists	1,714	71	yes	yes	no	yes	1.00
3160	Physical Therapists	3,262	162	yes	yes	no	yes	1.92
3200	Radiation Therapists	149	0	yes	no	yes	no	0.09
3210	Recreational Therapists	161	6	yes	no	yes	no	0.10
3220	Respiratory Therapists	1,270	7	yes	yes	no	yes	0.84
3230	Speech-Language Pathologists	2,370	135	yes	yes	no	yes	1.38
3245	Other Therapists	2,659	435	yes	yes	no	yes	1.68
3250	Veterinarians	1,255	128	yes	yes	no	yes	0.68
3255	Registered Nurses	36,334	281	yes	yes	no	yes	22.37

OCCP	Occupation (2024 PUMS label)	Unweighted n (civilian employed, COW 1-7)	Unweighted n in COW 6	Passes rules 1-3	Meets 300-record floor (rule 4)	Below 300-record floor	In the 37-occupation set	Weighted share of civilian employment across the 56 codes (%)
3256	Nurse Anesthetists	580	34	yes	yes	no	yes	0.31
3258	Nurse Practitioners, And Nurse Midwives	3,513	85	yes	yes	no	yes	2.06
3261	Acupuncturists	223	96	yes	no	yes	no	0.12
3270	Healthcare Diagnosing Or Treating Practitioners, All Other	152	66	yes	no	yes	no	0.08
3300	Clinical Laboratory Technologists And Technicians	3,128	26	yes	yes	no	yes	1.99
3310	Dental Hygienists	2,250	65	yes	yes	no	yes	1.36
3321	Cardiovascular Technologists and Technicians	475	9	yes	yes	no	yes	0.31
3322	Diagnostic Medical Sonographers	1,161	16	yes	yes	no	yes	0.70
3323	Radiologic Technologists And Technicians	2,544	17	yes	yes	no	yes	1.52
3324	Magnetic Resonance Imaging Technologists	525	4	yes	yes	no	yes	0.33
3330	Nuclear Medicine Technologists and Medical Dosimetrists	389	4	no	yes	no	no	0.23
3401	Emergency Medical Technicians	1,439	8	yes	yes	no	yes	0.92
3402	Paramedics	1,240	11	yes	yes	no	yes	0.75
3421	Pharmacy Technicians	3,972	30	yes	yes	no	yes	2.59
3422	Psychiatric Technicians	1,432	10	yes	yes	no	yes	1.01
3423	Surgical Technologists	1,084	7	yes	yes	no	yes	0.74
3424	Veterinary Technologists and Technicians	1,681	29	yes	yes	no	yes	1.05
3430	Dietetic Technicians And Ophthalmic Medical Technicians	827	13	no	yes	no	no	0.51
3500	Licensed Practical And Licensed Vocational Nurses	5,470	78	yes	yes	no	yes	3.56
3515	Medical Records Specialists	1,926	24	yes	yes	no	yes	1.18
3520	Opticians, Dispensing	770	15	yes	yes	no	yes	0.47

OCCP	Occupation (2024 PUMS label)	Unweighted n (civilian employed, COW 1-7)	Unweighted n in COW 6	Passes rules 1-3	Meets 300-record floor (rule 4)	Below 300-record floor	In the 37-occupation set	Weighted share of civilian employment across the 56 codes (%)
3545	Miscellaneous Health Technologists and Technicians	1,348	27	no	yes	no	no	0.90
3550	Other Healthcare Practitioners and Technical Occupations	1,296	66	no	yes	no	no	0.83
3601	Home Health Aides	5,010	234	no	yes	no	no	3.57
3602	Personal Care Aides	14,824	1,037	no	yes	no	no	9.90
3603	Nursing Assistants	11,669	165	yes	yes	no	yes	8.30
3605	Orderlies and Psychiatric Aides	525	8	no	yes	no	no	0.37
3610	Occupational Therapy Assistants And Aides	450	15	no	yes	no	no	0.27
3620	Physical Therapist Assistants And Aides	1,429	23	no	yes	no	no	0.81
3630	Massage Therapists	1,932	813	yes	yes	no	yes	1.20
3640	Dental Assistants	3,076	79	yes	yes	no	yes	2.04
3645	Medical Assistants	5,830	72	yes	yes	no	yes	4.07
3646	Medical Transcriptionists	488	43	yes	yes	no	yes	0.29
3647	Pharmacy Aides	309	3	yes	yes	no	yes	0.21
3648	Veterinary Assistants And Laboratory Animal Caretakers	859	16	yes	yes	no	yes	0.55
3649	Phlebotomists	1,126	8	yes	yes	no	yes	0.80
3655	Other Healthcare Support Workers	1,782	30	no	yes	no	no	1.27

Panel B. Coverage by the unincorporated self-employed (class of worker 6).

OCCP	Occupation (2024 PUMS label)	Share in excluded group (%)	Share in excluded group (%), SE (replicate)	Change in mean total earnings from adding excluded group (%)	Change in mean total earnings from adding excluded group (%), SE (replicate)	Raw two-sided p	Holm p (within the 13 excluded floor-passing codes)	BH q (within the 13 excluded floor-passing codes)
3000	Chiropractors	23.83	2.05	−3.03	2.20	0.1680		
3010	Dentists	13.97	0.85	+1.01	0.94	0.2842	1.000	0.369
3030	Dietitians And Nutritionists	6.39	0.84	−0.10	0.84	0.9071		
3040	Optometrists	11.08	1.80	−1.14	1.17	0.3322		
3050	Pharmacists	0.91	0.19	−0.04	0.12	0.7202		
3090	Physicians	5.18	0.22	−0.23	0.18	0.2071	1.000	0.300
3100	Surgeons	3.81	1.12	−1.60	0.77	0.0374	0.449	0.142
3110	Physician Assistants	0.85	0.19	+0.10	0.18	0.5758		

OCCP	Occupation (2024 PUMS label)	Share in excluded group (%)	Share in excluded group (%), SE (replicate)	Change in mean total earnings from adding excluded group (%)	Change in mean total earnings from adding excluded group (%), SE (replicate)	Raw two-sided p	Holm p (within the 13 excluded floor-passing codes)	BH q (within the 13 excluded floor-passing codes)
3120	Podiatrists	15.07	2.95	−4.13	2.84	0.1464		
3140	Audiologists	1.99	1.05	+1.28	1.22	0.2944		
3150	Occupational Therapists	3.67	0.58	−0.35	0.26	0.1857		
3160	Physical Therapists	4.77	0.40	−0.43	0.32	0.1888		
3200	Radiation Therapists	0.00	0.00	+0.00	0.00	1.0000		
3210	Recreational Therapists	3.86	1.56	−0.17	1.03	0.8675		
3220	Respiratory Therapists	0.68	0.35	−0.06	0.16	0.6886		
3230	Speech-Language Pathologists	5.61	0.65	−0.59	0.41	0.1509		
3245	Other Therapists	14.55	0.83	+1.34	0.85	0.1169		
3250	Veterinarians	9.02	1.22	−0.47	0.82	0.5663		
3255	Registered Nurses	0.71	0.05	−0.06	0.06	0.3443		
3256	Nurse Anesthetists	5.18	0.92	+0.53	0.83	0.5282		
3258	Nurse Practitioners, And Nurse Midwives	2.45	0.35	−0.46	0.24	0.0612		
3261	Acupuncturists	43.83	4.45	+19.85	10.97	0.0703		
3270	Healthcare Diagnosing Or Treating Practitioners, All Other	47.73	4.89	−17.96	8.43	0.0332		
3300	Clinical Laboratory Technologists And Technicians	0.93	0.25	−0.04	0.38	0.9076		
3310	Dental Hygienists	2.86	0.46	+1.03	0.85	0.2278		
3321	Cardiovascular Technologists and Technicians	1.33	0.47	+0.60	0.60	0.3178		
3322	Diagnostic Medical Sonographers	1.63	0.40	+0.55	0.69	0.4228		
3323	Radiologic Technologists And Technicians	0.48	0.11	+0.72	0.31	0.0210		
3324	Magnetic Resonance Imaging Technologists	0.27	0.16	+0.04	0.13	0.7840		
3330	Nuclear Medicine Technologists and Medical Dosimetrists	0.51	0.28	−0.01	0.23	0.9812	1.000	0.981
3401	Emergency Medical Technicians	0.50	0.21	−0.22	0.13	0.0769		
3402	Paramedics	0.92	0.36	−0.20	0.23	0.3824		
3421	Pharmacy Technicians	0.77	0.19	−0.06	0.09	0.5444		

OCCP	Occupation (2024 PUMS label)	Share in excluded group (%)	Share in excluded group (%), SE (replicate)	Change in mean total earnings from adding excluded group (%)	Change in mean total earnings from adding excluded group (%), SE (replicate)	Raw two-sided p	Holm p (within the 13 excluded floor-passing codes)	BH q (within the 13 excluded floor-passing codes)
3422	Psychiatric Technicians	1.00	0.42	+0.08	0.32	0.7968		
3423	Surgical Technologists	0.57	0.24	−0.09	0.15	0.5254		
3424	Veterinary Technologists and Technicians	1.72	0.47	−0.28	0.13	0.0302		
3430	Dietetic Technicians And Ophthalmic Medical Technicians	1.07	0.38	+0.62	0.50	0.2074	1.000	0.300
3500	Licensed Practical And Licensed Vocational Nurses	1.37	0.22	−0.25	0.11	0.0193		
3515	Medical Records Specialists	0.88	0.22	+0.15	0.19	0.4260		
3520	Opticians, Dispensing	2.01	0.66	+0.55	1.07	0.6096		
3545	Miscellaneous Health Technologists and Technicians	1.50	0.30	+2.07	1.04	0.0458	0.458	0.142
3550	Other Healthcare Practitioners and Technical Occupations	4.51	0.64	−0.42	0.72	0.5655	1.000	0.613
3601	Home Health Aides	4.01	0.33	−0.52	0.27	0.0545	0.490	0.142
3602	Personal Care Aides	6.49	0.25	−0.54	0.30	0.0732	0.585	0.159
3603	Nursing Assistants	1.31	0.12	−0.05	0.10	0.5867		
3605	Orderlies and Psychiatric Aides	1.75	0.80	−0.44	0.29	0.1386	0.971	0.257
3610	Occupational Therapy Assistants And Aides	3.37	1.15	−1.12	0.54	0.0402	0.449	0.142
3620	Physical Therapist Assistants And Aides	1.45	0.31	−0.19	0.26	0.4626	1.000	0.547
3630	Massage Therapists	38.97	1.54	−4.48	1.99	0.0240		
3640	Dental Assistants	2.15	0.32	+0.22	0.48	0.6516		
3645	Medical Assistants	1.44	0.22	−0.15	0.27	0.5765		
3646	Medical Transcriptionists	7.19	1.27	−0.96	1.02	0.3423		
3647	Pharmacy Aides	0.64	0.41	−0.15	0.32	0.6388		
3648	Veterinary Assistants And Laboratory Animal Caretakers	1.53	0.42	+1.17	0.89	0.1893		
3649	Phlebotomists	0.64	0.26	+0.04	0.30	0.8963		
3655	Other Healthcare Support Workers	1.00	0.22	−0.48	0.16	0.0022	0.028	0.028

Units. Unweighted n are person records. Shares, changes and the weighted share are percentages, with standard errors in percentage points. The p and q values have no unit. Rule columns are yes or no.

Basis. Every 2024 ACS occupation code in the healthcare practitioner and technical group and the healthcare support group. Rules 1 to 3 are the group, one-to-one SOC mapping and detailed OEWS occupation rules of Methods; rule 4 requires at least 300 civilian employed records in classes of worker 1 to 7. The weighted share is each code's share of weighted civilian employment (classes of worker 1 to 7) across the 56 codes. The share, change and replicate standard errors use the estimator of Table 1 and Table S1. Raw p values are two-sided, from the change and its standard error. Holm and Benjamini-Hochberg adjustment is within the 13 codes outside the set that meet the 300-record floor; the cells are blank for the 37 codes in the set and for the six codes below the floor, which are reported without adjustment. Standard errors marked replicate use successive-difference replication with the 80 person replicate weights; they exclude imputation variance, so they are lower bounds. Occupation labels are the 2024 PUMS labels. Rows are in code order.

Source and vintage. U.S. Census Bureau, American Community Survey 2024 one-year Public Use Microdata Sample, person file (csv_pus.zip, Last-Modified December 4, 2025); U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2025 national estimates (national_M2025_dl.xlsx) (rule 3); author's estimates computed September 10, 2026. File: `TABLE_S2_all_56_health_codes_2026-09-15.csv`.

Table S3

Allocated wages and the upper tail of the ACS wage distribution, 37 occupations, ACS 2024 one-year PUMS.

Panel A. Allocation and records at or above $250,000 and $500,000.

OCCP	Occupation	Establishment-universe records	Weight share of records with allocated wages (%)	Records ≥ $250,000	Of which allocated (≥ $250,000)	Wage-bill share ≥ $250,000 (%)	Records ≥ $500,000	Of which allocated (≥ $500,000)	Wage-bill share ≥ $500,000 (%)
3324	Magnetic Resonance Imaging Technologists	521	46.6	71	70	48.7	29	29	30.8
3321	Cardiovascular Technologists and Technicians	466	43.7	68	66	51.9	28	26	26.0
3322	Diagnostic Medical Sonographers	1,145	28.6	88	82	34.6	39	35	18.3
3000	Chiropractors	558	16.9	32	9	26.7	9	4	16.4
3256	Nurse Anesthetists	546	15.3	174	21	48.0	26	4	14.2
3323	Radiologic Technologists And Technicians	2,527	24.2	80	74	17.2	38	34	8.7
3110	Physician Assistants	1,744	21.7	94	73	17.5	29	21	8.6
3402	Paramedics	1,229	19.4	42	4	17.2	14	0	8.2
3250	Veterinarians	1,127	7.1	87	9	20.0	25	2	7.5
3040	Optometrists	491	10.0	33	2	20.0	6	0	5.5
3640	Dental Assistants	2,997	29.2	12	10	4.5	8	6	4.3
3401	Emergency Medical Technicians	1,431	24.6	7	3	4.5	6	2	4.1
3310	Dental Hygienists	2,185	21.1	22	18	7.0	10	7	3.9
3160	Physical Therapists	3,100	16.3	22	7	4.9	9	2	3.5
3423	Surgical Technologists	1,077	26.2	3	2	4.0	1	0	3.5
3220	Respiratory Therapists	1,263	20.9	7	3	3.9	5	2	3.3
3603	Nursing Assistants	11,504	31.7	35	3	5.3	18	0	3.1
3645	Medical Assistants	5,758	29.1	20	5	3.9	10	2	2.9

OCCP	Occupation	Establishment-universe records	Weight share of records with allocated wages (%)	Records ≥ $250,000	Of which allocated (≥ $250,000)	Wage-bill share ≥ $250,000 (%)	Records ≥ $500,000	Of which allocated (≥ $500,000)	Wage-bill share ≥ $500,000 (%)
3500	Licensed Practical And Licensed Vocational Nurses	5,392	27.3	24	6	3.8	15	2	2.9
3230	Speech-Language Pathologists	2,235	16.5	8	2	2.9	6	2	2.5
3050	Pharmacists	3,844	15.5	99	23	7.4	19	6	2.4
3421	Pharmacy Technicians	3,942	26.5	13	6	3.2	5	0	2.0
3258	Nurse practitioners (includes nurse midwives)	3,428	14.6	54	12	4.9	14	3	2.0
3630	Massage Therapists	1,119	24.0	3	0	2.9	2	0	1.9
3255	Registered Nurses	36,053	20.0	264	78	3.7	73	14	1.4
3648	Veterinary Assistants And Laboratory Animal Caretakers	843	31.6	3	2	1.7	1	0	1.1
3300	Clinical Laboratory Technologists And Technicians	3,102	22.8	9	1	2.1	2	0	1.1
3515	Medical Records Specialists	1,902	21.7	6	3	2.3	2	1	0.9
3422	Psychiatric Technicians	1,422	24.1	6	2	4.9	1	1	0.9
3520	Opticians, Dispensing	755	25.6	3	2	2.5	1	0	0.9
3150	Occupational Therapists	1,643	16.3	4	2	1.5	1	0	0.9
3424	Veterinary Technologists and Technicians	1,652	25.4	3	2	1.6	1	0	0.7
3030	Dietitians And Nutritionists	1,043	24.0	8	5	3.6	1	1	0.4
3245	Other therapists (includes exercise physiologists)	2,224	19.8	17	6	4.4	1	0	0.3
3646	Medical Transcriptionists	445	25.8	0	0	0.0	0	0	0.0
3647	Pharmacy Aides	306	34.6	1	0	1.6	0	0	0.0
3649	Phlebotomists	1,118	28.3	1	0	0.4	0	0	0.0

Panel B. Mean-to-median ratios and the largest wage.

OCCP	Occupation	ACS mean/median, all wages	ACS mean/median, reported wages	OEWS mean/median	Largest nominal wage ($)
3324	Magnetic Resonance Imaging Technologists	1.704	1.004	1.007	751,000
3321	Cardiovascular Technologists and Technicians	1.948	1.377	1.035	751,000

OCCP	Occupation	ACS mean/median, all wages	ACS mean/median, reported wages	OEWS mean/median	Largest nominal wage ($)
3322	Diagnostic Medical Sonographers	1.384	1.076	1.007	751,000
3000	Chiropractors	1.331	1.282	1.143	699,000
3256	Nurse Anesthetists	1.091	1.100	1.050	751,000
3323	Radiologic Technologists And Technicians	1.210	1.070	1.047	751,000
3110	Physician Assistants	1.076	0.992	1.040	832,000
3402	Paramedics	1.185	1.197	1.046	751,000
3250	Veterinarians	1.136	1.138	1.097	751,000
3040	Optometrists	1.142	1.130	1.036	751,000
3640	Dental Assistants	1.078	1.015	1.044	751,000
3401	Emergency Medical Technicians	1.112	1.104	1.053	678,000
3310	Dental Hygienists	1.075	0.998	1.009	751,000
3160	Physical Therapists	1.013	1.003	1.025	727,000
3423	Surgical Technologists	1.080	1.085	1.063	678,000
3220	Respiratory Therapists	1.066	1.058	1.061	740,000
3603	Nursing Assistants	1.136	1.170	1.010	907,000
3645	Medical Assistants	1.095	1.108	1.009	601,000
3500	Licensed Practical And Licensed Vocational Nurses	1.080	1.058	1.041	751,000
3230	Speech-Language Pathologists	1.035	1.034	1.003	751,000
3050	Pharmacists	0.975	0.963	1.000	751,000
3421	Pharmacy Technicians	1.076	1.037	1.019	678,000
3258	Nurse practitioners (includes nurse midwives)	1.014	0.986	1.038	751,000
3630	Massage Therapists	1.186	1.183	1.092	727,000
3255	Registered Nurses	1.058	1.042	1.040	751,000
3648	Veterinary Assistants And Laboratory Animal Caretakers	1.138	1.020	1.057	570,000
3300	Clinical Laboratory Technologists And Technicians	1.123	1.112	1.070	563,000
3515	Medical Records Specialists	1.122	1.082	1.110	619,000
3422	Psychiatric Technicians	1.099	1.098	1.033	570,000
3520	Opticians, Dispensing	1.160	1.060	1.095	594,000
3150	Occupational Therapists	1.003	1.006	1.009	566,000
3424	Veterinary Technologists and Technicians	1.069	1.038	1.037	727,000
3030	Dietitians And Nutritionists	1.044	1.011	1.010	509,000
3245	Other therapists (includes exercise physiologists)	1.094	1.092	1.160	520,000
3646	Medical Transcriptionists	1.077	1.039	1.032	100,000
3647	Pharmacy Aides	1.218	1.173	1.074	250,000
3649	Phlebotomists	1.040	1.032	1.006	398,000

Units. Records are unweighted person records. The allocated share and wage-bill shares are percentages. Mean-to-median ratios have no unit. The largest wage is in nominal dollars.

Basis. Establishment-comparable universe: civilian employed, classes of worker 1 to 5 and 7, positive wage and salary income. The $250,000 and $500,000 thresholds apply to nominal (unadjusted) wages. The allocated counts are records whose wage the Census Bureau allocated (FWAGP); the allocated share is weighted. A wage-bill share is the weighted wage and salary income of records at or above the threshold divided by the weighted

wage and salary income of the universe, 2024 income adjusted by the Census income adjustment factor. The ACS mean-to-median ratio uses all wages or reported (not allocated) wages; the OEWS ratio is the May 2025 annual mean over the annual median. The largest wage is the largest nominal wage and salary income in the universe. These are counts and ratios of the sample file and carry no standard errors. Across the 37 occupations, 613 of 1,423 records at or above $250,000 were allocated (43%), and 218 of 227 (96%) in three occupations (magnetic resonance imaging technologists, cardiovascular technologists and technicians, and diagnostic medical sonographers). Rows are in descending order of the wage-bill share at $500,000 or more.

Source and vintage. U.S. Census Bureau, American Community Survey 2024 one-year Public Use Microdata Sample, person file (csv_pus.zip, Last-Modified December 4, 2025); U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2025 national estimates (national_M2025_dl.xlsx) (OEWS ratio); author's estimates computed September 10, 2026. File: `TABLE_S3_tail_census_2026-09-15.csv`.

Table S4

Coverage with both self-employment classes outside the establishment universe, 37 occupations, ACS 2024 one-year PUMS.

Panel A. Self-employed shares.

OCCP	Occupation	Unweighted n (civilian employed, COW 1-7)	Unweighted n in COW 6	Unweighted n in COW 7	Share in COW 6 or 7 (%)	Share in COW 6 or 7 (%), SE (replicate)	Share in COW 7 (%)	Share in COW 7 (%), SE (replicate)
3000	Chiropractors	737	179	297	63.03	2.47	39.20	2.42
3630	Massage Therapists	1,932	813	196	48.40	1.62	9.44	0.83
3040	Optometrists	562	71	146	36.96	2.60	25.88	2.57
3250	Veterinarians	1,255	128	209	23.83	1.52	14.80	1.23
3245	Other therapists (includes exercise physiologists)	2,659	435	249	22.82	1.00	8.28	0.60
3256	Nurse Anesthetists	580	34	51	13.81	1.81	8.63	1.55
3160	Physical Therapists	3,262	162	179	10.00	0.62	5.23	0.53
3030	Dietitians And Nutritionists	1,126	83	39	9.17	0.98	2.78	0.52
3230	Speech-Language Pathologists	2,370	135	81	8.95	0.77	3.34	0.41
3646	Medical Transcriptionists	488	43	5	8.14	1.37	0.96	0.41
3520	Opticians, Dispensing	770	15	37	7.59	1.26	5.58	1.10
3150	Occupational Therapists	1,714	71	45	6.51	0.71	2.84	0.52
3258	Nurse practitioners (includes nurse midwives)	3,513	85	106	5.76	0.51	3.30	0.38
3310	Dental Hygienists	2,250	65	73	5.49	0.58	2.63	0.36
3640	Dental Assistants	3,076	79	93	4.66	0.46	2.51	0.30
3322	Diagnostic Medical Sonographers	1,161	16	28	4.22	0.67	2.59	0.61
3648	Veterinary Assistants And Laboratory Animal Caretakers	859	16	21	4.10	0.78	2.58	0.71
3321	Cardiovascular Technologists and Technicians	475	9	18	3.87	0.77	2.54	0.66
3324	Magnetic Resonance Imaging Technologists	525	4	20	3.80	1.01	3.53	0.99

OCCP	Occupation	Unweighted n (civilian employed, COW 1-7)	Unweighted n in COW 6	Unweighted n in COW 7	Share in COW 6 or 7 (%)	Share in COW 6 or 7 (%), SE (replicate)	Share in COW 7 (%)	Share in COW 7 (%), SE (replicate)
3110	Physician Assistants	1,767	23	34	3.63	0.64	2.77	0.60
3050	Pharmacists	3,882	38	122	3.59	0.35	2.68	0.31
3424	Veterinary Technologists and Technicians	1,681	29	18	2.70	0.57	0.98	0.34
3645	Medical Assistants	5,830	72	83	2.65	0.28	1.21	0.15
3603	Nursing Assistants	11,669	165	155	2.44	0.17	1.13	0.12
3500	Licensed Practical And Licensed Vocational Nurses	5,470	78	67	2.33	0.27	0.95	0.14
3515	Medical Records Specialists	1,926	24	20	2.24	0.47	1.37	0.39
3647	Pharmacy Aides	309	3	3	2.02	0.93	1.38	0.81
3323	Radiologic Technologists And Technicians	2,544	17	38	1.90	0.34	1.41	0.29
3422	Psychiatric Technicians	1,432	10	13	1.82	0.54	0.82	0.31
3300	Clinical Laboratory Technologists And Technicians	3,128	26	21	1.64	0.32	0.71	0.18
3421	Pharmacy Technicians	3,972	30	36	1.63	0.30	0.86	0.20
3649	Phlebotomists	1,126	8	11	1.42	0.39	0.77	0.29
3255	Registered Nurses	36,334	281	254	1.36	0.07	0.65	0.05
3402	Paramedics	1,240	11	8	1.31	0.40	0.39	0.17
3423	Surgical Technologists	1,084	7	6	1.24	0.36	0.66	0.26
3401	Emergency Medical Technicians	1,439	8	10	1.22	0.35	0.72	0.28
3220	Respiratory Therapists	1,270	7	1	0.76	0.36	0.08	0.07

Panel B. Change in mean total earnings from adding classes of worker 6 and 7.

OCCP	Occupation	Change in mean total earnings from adding COW 6 and 7 (earnings > 0) to COW 1-5 with WAGP > 0 (%)	Change in mean total earnings from adding COW 6 and 7 (earnings > 0) to COW 1-5 with WAGP > 0 (%), SE (replicate)	z	Raw two-sided p	Holm p (37 tests)	BH q (37 tests)	Upper 95% bound on absolute change (%)
3000	Chiropractors	+4.06	6.57	+0.62	0.5367	1.000	0.792	16.95
3630	Massage Therapists	−2.19	2.40	−0.91	0.3621	1.000	0.638	6.90
3040	Optometrists	+6.17	3.76	+1.64	0.1008	1.000	0.266	13.54
3250	Veterinarians	+3.72	1.78	+2.09	0.0366	1.000	0.149	7.20
3245	Other therapists (includes exercise physiologists)	+5.06	1.25	+4.05	0.0001	0.002	0.002	7.51
3256	Nurse Anesthetists	+0.71	1.36	+0.53	0.5994	1.000	0.792	3.38

OCCP	Occupation	Change in mean total earnings from adding COW 6 and 7 (earnings > 0) to COW 1-5 with WAGP > 0 (%)	Change in mean total earnings from adding COW 6 and 7 (earnings > 0) to COW 1-5 with WAGP > 0 (%), SE (replicate)	z	Raw two-sided p	Holm p (37 tests)	BH q (37 tests)	Upper 95% bound on absolute change (%)
3160	Physical Therapists	+0.05	0.61	+0.07	0.9413	1.000	0.950	1.24
3030	Dietitians And Nutritionists	+0.43	1.03	+0.42	0.6738	1.000	0.797	2.45
3230	Speech-Language Pathologists	−0.51	0.54	−0.95	0.3408	1.000	0.630	1.56
3646	Medical Transcriptionists	−0.74	1.09	−0.68	0.4975	1.000	0.767	2.88
3520	Opticians, Dispensing	+5.74	2.38	+2.41	0.0158	0.488	0.083	10.40
3150	Occupational Therapists	−0.52	0.50	−1.04	0.2979	1.000	0.620	1.51
3258	Nurse practitioners (includes nurse midwives)	+0.18	0.51	+0.35	0.7293	1.000	0.809	1.18
3310	Dental Hygienists	+5.56	1.43	+3.89	0.0001	0.004	0.002	8.37
3640	Dental Assistants	+3.86	2.06	+1.88	0.0605	1.000	0.178	7.89
3322	Diagnostic Medical Sonographers	+5.56	2.12	+2.63	0.0086	0.276	0.053	9.70
3648	Veterinary Assistants And Laboratory Animal Caretakers	+5.11	1.91	+2.68	0.0074	0.243	0.053	8.84
3321	Cardiovascular Technologists and Technicians	+7.41	2.41	+3.07	0.0021	0.072	0.020	12.13
3324	Magnetic Resonance Imaging Technologists	+3.79	2.03	+1.86	0.0625	1.000	0.178	7.77
3110	Physician Assistants	+2.36	1.74	+1.36	0.1751	1.000	0.432	5.76
3050	Pharmacists	+0.89	0.43	+2.05	0.0403	1.000	0.149	1.74
3424	Veterinary Technologists and Technicians	−0.45	0.19	−2.34	0.0193	0.580	0.089	0.83
3645	Medical Assistants	−0.31	0.30	−1.04	0.2967	1.000	0.620	0.89
3603	Nursing Assistants	+0.59	0.74	+0.80	0.4219	1.000	0.679	2.04
3500	Licensed Practical And Licensed Vocational Nurses	+0.31	0.56	+0.55	0.5805	1.000	0.792	1.40
3515	Medical Records Specialists	+0.40	0.69	+0.58	0.5652	1.000	0.792	1.75
3647	Pharmacy Aides	−0.75	0.76	−0.99	0.3239	1.000	0.630	2.23
3323	Radiologic Technologists And Technicians	+3.12	1.00	+3.11	0.0019	0.066	0.020	5.09
3422	Psychiatric Technicians	+0.03	0.46	+0.06	0.9501	1.000	0.950	0.92

OCCP	Occupation	Change in mean total earnings from adding COW 6 and 7 (earnings > 0) to COW 1-5 with WAGP > 0 (%)	Change in mean total earnings from adding COW 6 and 7 (earnings > 0) to COW 1-5 with WAGP > 0 (%), SE (replicate)	z	Raw two-sided p	Holm p (37 tests)	BH q (37 tests)	Upper 95% bound on absolute change (%)
3300	Clinical Laboratory Technologists And Technicians	+0.14	0.43	+0.33	0.7432	1.000	0.809	0.97
3421	Pharmacy Technicians	+0.10	0.23	+0.43	0.6693	1.000	0.797	0.54
3649	Phlebotomists	+0.06	0.32	+0.19	0.8489	1.000	0.897	0.68
3255	Registered Nurses	−0.03	0.07	−0.44	0.6582	1.000	0.797	0.17
3402	Paramedics	+0.51	0.61	+0.85	0.3975	1.000	0.669	1.70
3423	Surgical Technologists	+0.28	0.28	+1.03	0.3016	1.000	0.620	0.82
3401	Emergency Medical Technicians	−0.33	0.17	−1.89	0.0585	1.000	0.178	0.67
3220	Respiratory Therapists	−0.06	0.16	−0.40	0.6894	1.000	0.797	0.38

Units. Unweighted n are person records. Shares, changes and bounds are percentages, with standard errors in percentage points. The z, p and q values have no unit.

Basis. Civilian employed respondents. Shares are weighted among classes of worker 1 to 7. The base is classes of worker 1 to 5 with positive wage and salary income; the excluded group is classes of worker 6 and 7 with positive total earnings; both are valued at total earnings, 2024 income adjusted by the Census income adjustment factor. The z statistic is the change divided by its standard error, and the p value is two-sided; Holm and Benjamini-Hochberg adjustment is across the 37 occupations; the upper 95% bound is the absolute change plus 1.96 standard errors. Standard errors marked replicate use successive-difference replication with the 80 person replicate weights; they exclude imputation variance, so they are lower bounds. This is the sensitivity that places the incorporated self-employed outside the OEWS universe (Limitations). Rows are in descending order of the share in class of worker 6 or 7.

Source and vintage. U.S. Census Bureau, American Community Survey 2024 one-year Public Use Microdata Sample, person file (csv_pus.zip, Last-Modified December 4, 2025); author's estimates computed September 10, 2026. File: `TABLE_S4_cow7_sensitivity_2026-09-15.csv`.

Table S5

Employees of private households (ACS industry code 9290) inside the establishment-comparable universe, 37 occupations, ACS 2024 one-year PUMS.

Panel A. Share of the universe and change in the mean from removing them.

OCCP	SOC	Occupation	Unweighted n (establishment-comparable universe, positive wages)	Unweighted n in Private Households (INDP 9290)	Share in Private Households (%)	Share in Private Households (%), SE (replicate)	Change in mean wage from removing them (%)	Change in mean wage from removing them (%), SE (replicate)	Upper 95% bound, absolute change in mean wage (%)	Change in mean total earnings, positive total earnings (%)	Change in mean total earnings, positive total earnings (%), SE (replicate)
3630	31-9011	Massage Therapists	1,119	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3000	29-1011	Chiropractors	558	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3245	29-1129	Other therapists (includes exercise physiologists)	2,224	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3040	29-1041	Optometrists	491	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3250	29-1131	Veterinarians	1,127	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3646	31-9094	Medical Transcriptionists	445	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3030	29-1031	Dietitians And Nutritionists	1,043	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

OCCP	SOC	Occupation	Unweighted n (establishment-comparable universe, positive wages)	Unweighted n in Private Households (INDP 9290)	Share in Private Households (%)	Share in Private Households (%), SE (replicate)	Change in mean wage from removing them (%)	Change in mean wage from removing them (%), SE (replicate)	Upper 95% bound, absolute change in mean wage (%)	Change in mean total earnings, positive total earnings (%)	Change in mean total earnings, positive total earnings (%), SE (replicate)
3230	29-1127	Speech-Language Pathologists	2,235	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3256	29-1151	Nurse Anesthetists	546	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3160	29-1123	Physical Therapists	3,100	1	0.0184	0.0186	−0.0180	0.0180	0.0533	−0.0174	0.0174
3150	29-1122	Occupational Therapists	1,643	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3310	29-1292	Dental Hygienists	2,185	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3258	29-1171	Nurse practitioners (includes nurse midwives)	3,428	1	0.0162	0.0174	0.0066	0.0071	0.0205	0.0067	0.0072
3640	31-9091	Dental Assistants	2,997	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3520	29-2081	Opticians, Dispensing	755	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3424	29-2056	Veterinary Technologists and Technicians	1,652	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3322	29-2032	Diagnostic Medical Sonographers	1,145	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3648	31-9096	Veterinary Assistants And Laboratory Animal Caretakers	843	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3645	31-9092	Medical Assistants	5,758	4	0.0611	0.0364	0.0042	0.0109	0.0256	0.0043	0.0109
3500	29-2061	Licensed Practical And Licensed Vocational Nurses	5,392	4	0.0629	0.0375	0.0491	0.0305	0.1089	0.0491	0.0305
3321	29-2031	Cardiovascular Technologists and Technicians	466	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3603	31-1131	Nursing Assistants	11,504	42	0.4855	0.1026	0.0541	0.0992	0.2485	0.0458	0.0974
3422	29-2053	Psychiatric Technicians	1,422	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3300	29-2010	Clinical Laboratory Technologists And Technicians	3,102	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3402	29-2043	Paramedics	1,229	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3050	29-1051	Pharmacists	3,844	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3515	29-2072	Medical Records Specialists	1,902	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3110	29-1071	Physician Assistants	1,744	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3421	29-2052	Pharmacy Technicians	3,942	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

OCCP	SOC	Occupation	Unweighted n (establishment-comparable universe, positive wages)	Unweighted n in Private Households (INDP 9290)	Share in Private Households (%)	Share in Private Households (%), SE (replicate)	Change in mean wage from removing them (%)	Change in mean wage from removing them (%), SE (replicate)	Upper 95% bound, absolute change in mean wage (%)	Change in mean total earnings, positive total earnings (%)	Change in mean total earnings, positive total earnings (%), SE (replicate)
3255	29-1141	Registered Nurses	36,053	12	0.0232	0.0069	0.0122	0.0044	0.0209	0.0116	0.0044
3220	29-1126	Respiratory Therapists	1,263	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3647	31-9095	Pharmacy Aides	306	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3649	31-9097	Phlebotomists	1,118	1	0.1230	0.1293	−0.1803	0.1897	0.5521	−0.1802	0.1896
3423	29-2055	Surgical Technologists	1,077	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3401	29-2042	Emergency Medical Technicians	1,431	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3323	29-2034	Radiologic Technologists And Technicians	2,527	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3324	29-2035	Magnetic Resonance Imaging Technologists	521	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Panel B. Change in the median wage from removing them, as tested in this report.

OCCP	Occupation	Change in interpolated median wage (%)	Change in share of wages at or below the base median (percentage points)	Change in share of wages at or below the base median (percentage points), SE (replicate)	Upper 95% bound, absolute change in median wage, share scale (%)	Change in interpolated median wage (%), SE (linearized Woodruff, bandwidth 0.05; not used for nested changes)	Upper 95% bound, absolute change in median wage, linearized Woodruff (%)	Change in interpolated median wage (%), SE (household bootstrap; not design-based)	Change in interpolated median wage, household bootstrap 2.5th percentile (%)	Change in interpolated median wage, household bootstrap 97.5th percentile (%)
3630	Massage Therapists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3000	Chiropractors	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3245	Other therapists (includes exercise physiologists)	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3040	Optometrists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3250	Veterinarians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3646	Medical Transcriptionists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3030	Dietitians And Nutritionists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3230	Speech-Language Pathologists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3256	Nurse Anesthetists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3160	Physical Therapists	−0.0019	+0.0098	0.0098	0.0059	0.0079	0.0174	0.0028	−0.0064	+0.0000
3150	Occupational Therapists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3310	Dental Hygienists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000

OCCP	Occupation	Change in interpolated median wage (%)	Change in share of wages at or below the base median (percentage points)	Change in share of wages at or below the base median (percentage points), SE (replicate)	Upper 95% bound, absolute change in median wage, share scale (%)	Change in interpolated median wage (%), SE (linearized Woodruff, bandwidth 0.05; not used for nested changes)	Upper 95% bound, absolute change in median wage, linearized Woodruff (%)	Change in interpolated median wage (%), SE (household bootstrap; not design-based)	Change in interpolated median wage, household bootstrap 2.5th percentile (%)	Change in interpolated median wage, household bootstrap 97.5th percentile (%)
3258	Nurse practitioners (includes nurse midwives)	0.0124	−0.0081	0.0087	0.0386	0.0072	0.0266	0.0196	+0.0000	+0.0669
3640	Dental Assistants	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3520	Opticians, Dispensing	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3424	Veterinary Technologists and Technicians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3322	Diagnostic Medical Sonographers	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3648	Veterinary Assistants And Laboratory Animal Caretakers	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3645	Medical Assistants	−0.0001	+0.0004	0.0173	0.0050	0.0149	0.0292	0.0665	−0.0836	+0.0703
3500	Licensed Practical And Licensed Vocational Nurses	0.0047	−0.0313	0.0188	0.0101	0.0210	0.0459	0.1703	+0.0005	+0.6168
3321	Cardiovascular Technologists and Technicians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3603	Nursing Assistants	0.0102	−0.0487	0.0576	0.0356	0.0888	0.1842	0.2221	−0.0455	+0.8027
3422	Psychiatric Technicians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3300	Clinical Laboratory Technologists And Technicians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3402	Paramedics	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3050	Pharmacists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3515	Medical Records Specialists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3110	Physician Assistants	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3421	Pharmacy Technicians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3255	Registered Nurses	0.0198	−0.0095	0.0034	0.0337	0.0036	0.0269	0.0103	+0.0039	+0.0446
3220	Respiratory Therapists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3647	Pharmacy Aides	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3649	Phlebotomists	−0.0085	+0.0628	0.0661	0.0266	0.0584	0.1229	0.1282	−0.4000	+0.0000
3423	Surgical Technologists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000

OCCP	Occupation	Change in interpolated median wage (%)	Change in share of wages at or below the base median (percentage points)	Change in share of wages at or below the base median (percentage points), SE (replicate)	Upper 95% bound, absolute change in median wage, share scale (%)	Change in interpolated median wage (%), SE (linearized Woodruff, bandwidth 0.05; not used for nested changes)	Upper 95% bound, absolute change in median wage, linearized Woodruff (%)	Change in interpolated median wage (%), SE (household bootstrap; not design-based)	Change in interpolated median wage, household bootstrap 2.5th percentile (%)	Change in interpolated median wage, household bootstrap 97.5th percentile (%)
3401	Emergency Medical Technicians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3323	Radiologic Technologists And Technicians	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000
3324	Magnetic Resonance Imaging Technologists	0.0000	+0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	+0.0000	+0.0000

Panel C. Change in the median wage: retired replicate standard error and bound, kept for the record.

OCCP	Occupation	Change in interpolated median wage (%), SE (replicate, retired)	Upper 95% bound, absolute change in median wage, from the retired replicate SE (%)
3630	Massage Therapists	0.0000	0.0000
3000	Chiropractors	0.0000	0.0000
3245	Other therapists (includes exercise physiologists)	0.0000	0.0000
3040	Optometrists	0.0000	0.0000
3250	Veterinarians	0.0000	0.0000
3646	Medical Transcriptionists	0.0000	0.0000
3030	Dietitians And Nutritionists	0.0000	0.0000
3230	Speech-Language Pathologists	0.0000	0.0000
3256	Nurse Anesthetists	0.0000	0.0000
3160	Physical Therapists	0.0019	0.0055
3150	Occupational Therapists	0.0000	0.0000
3310	Dental Hygienists	0.0000	0.0000
3258	Nurse practitioners (includes nurse midwives)	0.0298	0.0709
3640	Dental Assistants	0.0000	0.0000
3520	Opticians, Dispensing	0.0000	0.0000
3424	Veterinary Technologists and Technicians	0.0000	0.0000
3322	Diagnostic Medical Sonographers	0.0000	0.0000
3648	Veterinary Assistants And Laboratory Animal Caretakers	0.0000	0.0000
3645	Medical Assistants	0.0499	0.0979
3500	Licensed Practical And Licensed Vocational Nurses	0.3752	0.7400
3321	Cardiovascular Technologists and Technicians	0.0000	0.0000
3603	Nursing Assistants	0.2686	0.5367
3422	Psychiatric Technicians	0.0000	0.0000
3300	Clinical Laboratory Technologists And Technicians	0.0000	0.0000
3402	Paramedics	0.0000	0.0000
3050	Pharmacists	0.0000	0.0000

OCCP	Occupation	Change in interpolated median wage (%), SE (replicate, retired)	Upper 95% bound, absolute change in median wage, from the retired replicate SE (%)
3515	Medical Records Specialists	0.0000	0.0000
3110	Physician Assistants	0.0000	0.0000
3421	Pharmacy Technicians	0.0000	0.0000
3255	Registered Nurses	0.0127	0.0446
3220	Respiratory Therapists	0.0000	0.0000
3647	Pharmacy Aides	0.0000	0.0000
3649	Phlebotomists	0.0917	0.1883
3423	Surgical Technologists	0.0000	0.0000
3401	Emergency Medical Technicians	0.0000	0.0000
3323	Radiologic Technologists And Technicians	0.0000	0.0000
3324	Magnetic Resonance Imaging Technologists	0.0000	0.0000

Units. Unweighted n are person records. Shares, changes and bounds are percentages, with standard errors in percentage points. The change in the share of wages at or below the base median is in percentage points of weighted wages.

Basis. Establishment-comparable universe: civilian employed, classes of worker 1 to 5 and 7, positive wage and salary income; the total-earnings column uses the same classes with positive total earnings. Employees of private households are identified by industry code 9290 in the Census person file. Each change is the percentage change from removing them; the median is interpolated. The mean-wage and total-earnings standard errors are replicate, and the mean-wage bound is the absolute change plus 1.96 standard errors. The change in the median is tested as the change in the weighted share of wages at or below the base median, with its replicate standard error (Methods); its bound carries that interval through the interpolated quantile function. The linearized Woodruff standard error (bandwidth 0.05) is shown but not used for these nested changes, because heaped wage values make it unreliable here; the household-cluster bootstrap resamples households and does not reflect the survey design. The replicate standard error of the median change and the bound built on it are retired, because replicate estimates of a median that falls on a heaped wage value stay within that value (Table 3 note). Standard errors marked replicate use successive-difference replication with the 80 person replicate weights; they exclude imputation variance, so they are lower bounds. Rows are in the order of Table S1.

Source and vintage. U.S. Census Bureau, American Community Survey 2024 one-year Public Use Microdata Sample, person file (csv_pus.zip, Last-Modified December 4, 2025); author's estimates computed September 11, 2026, with the median-change columns from the share-scale test onward added September 15, 2026. File: `TABLE_S5_private_households_2026-09-15.csv`.

Appendix B. The pair in detail

Estimates for dietitians and nutritionists (ACS code 3030; SOC 29-1031) and physical therapists (3160; SOC 29-1123), ACS 2024 establishment-comparable universe against OEWS May 2025 unless stated. Standard errors use the 80 replicate weights except where Woodruff standard errors are named.

Coverage. For the pair, the excluded shares were 6.4% (SE 0.8) and 4.8% (SE 0.4); adding the excluded group changed the ratio of means by 0.25 points (SE 0.68) on total earnings and by 2.06 points (SE 0.97, unadjusted $p = .035$) on the OEWS income concept, and the ratio of medians by −0.17 points on total earnings (linearized Woodruff SE 0.92; household-cluster bootstrap SE 0.62, 95% interval −2.00 to +0.44); adding the group raised the share of total earnings at or below the original median by 0.65 points (SE 0.43) for dietitians and 0.89 points (SE 0.25) for physical therapists, whose median falls on a heaped value and moved by −0.03%. Four unincorporated self-employed respondents in the pair reported net losses and were excluded from the change in the ratio of means; retaining them changed it from 0.25 to 0.16 points (SE 0.68). With the incorporated self-employed placed outside the establishment universe, the excluded shares were 9.2% and 10.0% and the total-earnings change in the ratio of means was 0.30 points (SE 0.85).

Allocation and the upper tail. Wages were allocated by the Census Bureau more often for dietitians than for physical therapists (24.0% against 16.3%, a difference of 7.7 points, SE 2.1); on reported wages alone the ACS ratio of means was 75.6 (SE 1.9), a change of 1.7 points (SE 1.5) that cannot be separated from sampling error. Removing the five highest wage records changed the ratio of means to 75.8 (SE 2.1) for dietitians or 78.6 (SE 2.0) for physical therapists, and capping wages at $250,000 changed it to 78.4 (SE 1.9), by 1.2 points.

Table B1

Additional estimates for the pair, ACS 2024 establishment-comparable universe against OEWS May 2025.

Quantity	Estimate (SE)
Difference in excluded shares, dietitians minus physical therapists, percentage points	1.62 (0.98)
Change in the ACS ratio of means from adding the excluded group, wage and salary income only (not the coverage concept), points	−0.20 (0.21)
Usually worked under 35 hours a week, %: dietitians; physical therapists; difference	22.1 (1.5); 23.0 (0.9); −0.9 (1.8)

Quantity	Estimate (SE)
Worked under 50 weeks in the past 12 months, %: dietitians; physical therapists; difference	10.1 (1.2); 12.3 (0.7); −2.2 (1.4)
ACS ratio of means, full-time full-year workers	77.4 (2.4)
ACS 2024 annual wage, dietitians and nutritionists: median; mean	$60,910; $63,604
OEWS May 2025 annual wage, dietitians and nutritionists: median; mean	$76,400; $77,130
ACS 2024 annual wage, physical therapists: median; mean	$81,230; $82,309
OEWS May 2025 annual wage, physical therapists: median; mean	$102,760; $105,280
ACS implied hourly wage as a percentage of the OEWS May 2025 hourly mean: dietitians; physical therapists	90.5 (1.9); 86.0 (1.1)
Ratio of implied hourly wages (rate basis)	77.1 (1.9)
Annualization contribution: annual ratio of means minus rate-basis ratio, points	0.18 (1.09)
Change in OEWS's own pair ratio, May 2023 to May 2025, points a year: mean; median	+1.15; +2.23
Mean-versus-median contrast in the ACS-OEWS gap, points	3.38 (1.99)

Note. ACS dollar figures are 2024 income adjusted by the Census income adjustment factor and are not the same period as OEWS May 2025. Standard errors of the ACS 2024 dollar figures are Woodruff (1952) for the medians, $1,468 for dietitians and $649 for physical therapists, and replicate for the means, $1,521 and $1,226; OEWS May 2025 figures are treated as fixed. The mean-versus-median contrast is the ACS-minus-OEWS difference in the pair ratio at the mean minus that at the median, with a Woodruff standard error for the median component (bandwidth 0.05; $p = .09$).

Source. U.S. Census Bureau, American Community Survey 2024 one-year PUMS person file; U.S. Bureau of Labor Statistics, OEWS May 2025 national estimates and May 2023 occupation pages; author's estimates from the civilian run of record.

Appendix C. Replication recipe

1. Download the ACS 2024 one-year PUMS person file (csv_pus.zip) and the 2024 PUMS data dictionary from the Census Bureau, and the OEWS May 2025 national workbook from BLS.
2. Keep the 56 occupation codes (OCCP) in the healthcare practitioner and technical and the healthcare support groups.
3. Keep civilian employed respondents: employment status recode (ESR) 1 or 2.
4. Establishment-comparable universe: class of worker (COW) 1 to 5 and 7, with wage and salary income (WAGP) above zero.
5. Excluded group: class of worker 6 with positive total earnings (WAGP plus self-employment income, SEMP). Do not filter class of worker 6 on WAGP; its members are paid mainly in SEMP (84.2% unweighted and 85.1% weighted, replicate standard error 0.8 percentage points, 2024 ACS one-year PUMS, 37-occupation basis).
6. Employees of private households, whom OEWS does not cover, are identified by industry code (INDP) 9290, not by class of worker; remove them as a sensitivity.
7. Apply the income adjustment factor (ADJINC, 1015250 on every 2024 record, that is 1.01525) to WAGP and SEMP.
8. OEWS income concept: earnings divided by usual hours worked per week (WKHP) times weeks worked (WKWN), multiplied by 2,080 (WKHP is usual hours worked per week during the past 12 months, coded 1 to 99; WKWN is weeks worked during the past 12 months, coded 1 to 52, 2024 PUMS data dictionary).
9. Allocation: the FWAGP flag marks allocated wage and salary income.
10. Weights: the person weight (PWGTP) for estimates; the 80 replicate weights (PWGTP1 to PWGTP80) for successive-difference standard errors, SE equal to the square root of (4/80) times the sum over replicates of the squared difference between the replicate and full-sample estimates (2024 ACS PUMS Accuracy of the Data, page 13: the standard error formula is SE(X) equal to the square root of (4/80) times the sum over the 80 replicates of the squared difference between each replicate estimate and the full-sample estimate).
11. Quantiles: weighted and interpolated across the wage value containing the quantile; Woodruff (1952) standard errors from the replicate standard error of the weighted share below the estimate divided by the density implied by the quantiles 0.05 above and below.
12. Occupation match: Census 2018 occupation code list and crosswalk; keep codes that map one-to-one to a detailed OEWS occupation with a published mean and median, and at least 300 civilian employed records: 56 codes, 43 after the first three rules, 37 after the floor.
13. Comparability: for each occupation, log(ACS/OEWS) at the mean and the median; for each of the 666 pairs, the absolute difference in those logs; inference by permutation within occupation, bootstrap over occupations and 5,000 partitions into 18 disjoint pairs.
14. The validity gate (gate/ in the data record) exits with status 0 only if every check holds. It looks for the report text in the folder above gate/, which is not where the archive keeps it, and reads its inputs by absolute paths in the author's working folder, so it does not run from the deposit without editing them; the record of its final run is deposited.

Appendix D. Analysis history

This analysis changed substantially before release. None of the earlier drafts was released; the record is kept so a reader can see what changed and why.

- **September 5, 2026, first two-occupation draft.** The first analysis placed both self-employment classes outside the OEWS universe and kept Armed Forces respondents. The OEWS Handbook covers salaried officers of incorporated firms, so the universe was corrected; that draft's figures are superseded and are not reported.
- **September 5 and 6, 2026, two-occupation draft.** It read the close agreement of the pair's median ratios as agreement between the surveys and recommended medians over means. Both readings were withdrawn: the agreement is a favorable instance of a shift common to 36 of 37 occupations, and for single-occupation levels the ACS mean was the closer statistic. Its difference at the mean came from a run that kept Armed Forces respondents; the civilian run of record gives 4.0 points (SE 2.2). The part of that difference it attributed to imputed wages cannot be separated from sampling error (1.7 points, SE 1.5; Appendix B).
- **September 9, 2026, preliminary run on 25 occupations** (Methods). Its archived output includes a test that treats pairs as independent; that test is not reportable and is not reported.
- **September 10, 2026, rules and rebuild.** The four inclusion rules were written after the preliminary run and before the comparison was run on the set they define (rules file modification time 14:43:38 on September 10, 2026, a second after the superseded 36-occupation results and before the first full-set results at 14:45:28 the same day, read from the original files and given in the deposit's `FILE_TIMES_original_tree.txt`). The first build dropped clinical laboratory technologists and technicians because the OEWS workbook lists SOC 29-2010 as both a broad and a detailed row; the set was rebuilt to 37 occupations, which moved the share of pairs favoring the median from 64.8% to 64.6%. The interquartile range convention was changed to type 7, the default in R and pandas.
- **September 10 and 11, 2026, three rounds of adversarial review.** The 2% and 5% cut points were introduced in the first round, after the estimates had been computed. The claim that the median's advantage came from imputation was withdrawn when capping only reported wages cut it about as much as capping only allocated wages; the held-out result was added; the alternative reading of OEWS scope (Table S4) was found to weaken the coverage result and was reported; employees of private households were found inside the comparison universe and their effect measured (Table S5).
- **September 15, 2026, audit for this series.** The upper tails of three technologist occupations were traced to allocated values at state top-code amounts; the advantage's dependence on those three occupations, the underreporting condition on the coverage result, the OEWS vintage question and the closest prior study were added; a replication on the ACS 2023 one-year file, specified and hashed before those data were read, was run and did not confirm the median's pairwise advantage (Table 8).

Appendix E. What OEWS measures, and differences between the instruments

This appendix sets out the two surveys side by side (Box 1) and the differences between them that bear on the comparisons in the Results.

Box 1. What OEWS measures, and what it is compared with here

OEWS estimates the wages of wage and salary jobs in nonfarm establishments, as reported by employers. Its wages are "straight-time, gross pay, excluding premium pay, such as overtime" (BLS, 2025a), its annual wages "assume a full-time, year-round schedule of 2,080 hours" (BLS, 2026c), and its employment "represents the estimated number of full- and part-time jobs" (BLS, 2025a). The exclusion of the unincorporated self-employed is a definition of scope. It becomes a bias only when OEWS is used as an estimate of a broader quantity, the earnings of all workers in an occupation, and that is the only sense in which this report uses the word.

Feature	OEWS, May 2025 national estimates	ACS, 2024 one-year PUMS
Who reports	Employers, for their establishments (BLS, 2025a)	Households, for each person : the person "filling out this form" reports "for everyone, including yourself, who is living or staying at this address for more than 2 months" (U.S. Census Bureau, 2024a)
Unit counted	"full- and part-time jobs" (BLS, 2025a)	Persons
Reference period	Six semiannual panels, November 2022 to May 2025, with earlier panels' wages adjusted to May 2025 (BLS, 2026b)	Income in the 12 months before the interview ("The 'past 12 months' is the period from today's date one year ago up through today"; U.S. Census Bureau, 2024a)
Pay concept	"straight-time, gross pay, excluding premium pay, such as overtime" (BLS, 2025a)	"wages, salary, commissions, bonuses, or tips from all jobs" (U.S. Census Bureau, 2024a)
Annualization	"a full-time, year-round schedule of 2,080 hours" (BLS, 2026c)	None; realized annual earnings
Self-employed	Owners and partners in unincorporated firms not covered; salaried officers of incorporated firms covered (BLS, 2025a)	Both classes included and identified by class of worker
Occupation assignment	Employers report "their workers' actual job titles and job duties", and "all occupational classification is done by the expert OEWS staff" (BLS, 2026c); "jobs are assigned to an occupation based on the work the employee performs" (BLS, 2025)	Coded from the answers to "What was this person's main occupation?" and "Describe this person's most important activities or duties" (U.S. Census Bureau, 2024a), which "are autocoded and clerically coded by Census Bureau staff" (U.S. Census Bureau, 2025d, p. 116)
Missing data	Wages modeled "for all unobserved establishments in the population, including establishments that were not sampled, sampled establishments that did not respond" (BLS, 2026b)	Allocated (imputed) values, flagged in the person file : FWAGP, "Wages and salary income allocation flag" (U.S. Census Bureau, 2025e)

Feature	OEWS, May 2025 national estimates	ACS, 2024 one-year PUMS
Top-coding	None stated in the May 2025 technical note (searched September 22, 2026, for "239,200", "115.00", "ceiling" and "top-cod"); with the May 2025 estimates, OEWS "began publishing specific wage estimates for many percentiles" that previously carried the footnote "This wage is equal to or greater than $115.00 per hour or $239,200 per year" (BLS, 2026c), and a search of the May 2025 national file on September 22, 2026, found no cell carrying it (BLS, 2026a)	Wages at or above a state threshold replaced by "the state mean of all cases greater than or equal to the top code state threshold value" (U.S. Census Bureau, 2025c)
Rounding	Exact wage rates for most workers; "a small percentage of records" processed in wage intervals (BLS, 2025a)	Household reports cluster on round amounts: a median 92.4% of weighted wage values across the 37 occupations are multiples of $1,000 (this report; Differences between the instruments)
Sampling error	Percent relative standard errors, "a measure of model error", published for employment and the mean wage; none for the median (BLS, 2026a)	80 replicate weights (U.S. Census Bureau, 2025b)

Differences between the instruments

The two surveys measure different things in different ways (Box 1), and several of the differences bear on the comparisons above. OEWS wages exclude premium pay, which the ACS includes, and OEWS annualizes a wage rate at 2,080 hours whereas the ACS records realized annual earnings (Methods). The OEWS May 2025 estimates pool six semiannual panels collected from November 2022 to May 2025, adjust wages from earlier panels to the May 2025 reference date, and model wages for unsampled and nonresponding establishments (BLS, 2026b). In the establishment-comparable universe the ACS counted 104,946 dietitians and nutritionists (SE 4,404) against 77,570 OEWS jobs, and 303,548 physical therapists (SE 6,437) against 267,330, ratios of 1.35 and 1.14 that differed by 0.22 (SE 0.06), computed from unrounded ratios; Dahal et al. (2021) reported 2017 counts of 256,214 (ACS) and 225,420 (OEWS) for physical therapists on a broader universe of all civilian employed persons. The counts differ in unit, because OEWS "employment represents the estimated number of full- and part-time jobs" (BLS, 2025a) whereas the ACS counts persons; a person holds at least one job, so that difference cannot explain the ACS excess, which may reflect how occupation is assigned, by respondents in the ACS and by employers in OEWS, and differences in scope. Household-reported wages cluster on round amounts: before the Census income adjustment, 92.4% of dietitians' and 95.2% of physical therapists' weighted wage values, and a median 92.4% across the 37 occupations, were exact multiples of $1,000; OEWS receives exact wage rates from employer records for most workers and processes only "a small percentage of records" in wage intervals (BLS, 2025a).

Appendix F. Related work on differences between federal sources

Lombardi et al. (2024) found counts of social workers ranging from 282,425 to 1,022,859 across five sources. For dietetics, the national workforce projections commissioned by the Commission on Dietetic Registration project supply from the credentialed registry (Gellar et al., 2026; see Appendix G, Counts). Counts of community health workers also differed by source: 117,638 in the ACS 2020 five-year file, under an occupation code that also includes health educators, 60,980 in the 2021 OEWS file and 24,708 in the September 2022 National Plan and Provider Enumeration System, differences the authors suggested may reflect each source's collection methods and occupational definitions (Lombardi et al., 2025). Processing can move a survey estimate even when the responses are the same: when the Census Bureau processed the same 2017 and 2018 Current Population Survey Annual Social and Economic Supplement responses with its legacy and its updated extraction and imputation systems, the health insurance coverage rate was 0.82 (SE 0.14) percentage points higher under the updated system for 2016 and 0.84 (SE 0.16) points higher for 2017 (Berchick & Jackson, 2022). In the ACS wage file examined here, imputation appears as allocated values, which make up most wages of $250,000 or more in three occupations (Results). Outside health care, coverage of the self-employed has been a stated reason for choosing a source: the Center for the Study of Child Care Employment moved the wage estimates in its Early Childhood Workforce Index 2024 from OEWS to the ACS "because self-employed individuals are not counted in OEWS data" (McLean et al., 2024, p. 203) and estimated from 2022 ACS microdata a median wage of "$9.01 per hour or approximately $18,500 per year" for self-employed, unincorporated child care workers, while noting that it could not determine whether all of them were family child care providers (McLean et al., 2024, pp. 52, 333).

Appendix G. Further results

This appendix gives results summarized in the main text, in the order of the Results.

Equivalence tests at margins chosen after the estimates

In two one-sided tests of equivalence at the .05 level on the ACS 2024 estimates, which count a change as within a margin when its 90% confidence interval lies wholly inside that margin, the change in mean total earnings was within ±2% in 29 of 37 occupations and within ±5% in 35 (24 and 35 after Holm adjustment across the 37). The 2% count exceeds the 27 from upper 95% bounds only because the 90% interval is narrower, which admits veterinarians (−0.5%, SE 0.8) and nurse anesthetists (+0.5%, SE 0.8), whose upper 95% bounds were 2.1% and 2.2%. On the OEWS income concept the counts were 26 and 30. These counts are descriptive, because the margins were chosen after the estimates were computed. With the incorporated self-employed also placed outside the establishment universe, the counts fell to 20 and 24 on total earnings (Table S4) and to 14 and 21 on the OEWS income concept.

The share-gap correlation

The change in the mean is the excluded group's share of the earnings-positive universe times its relative earnings gap, so for a given gap its magnitude rises with the share; the gap itself was a median −5.2% (interquartile range −11.6% to +10.2%; negative in 23 of 37 occupations), imprecisely estimated (Table 1), with no detectable correlation with the share (ρ = −.08, 95% CI −.39 to .25, p = .65; allowing for sampling error in the gaps, ρ = −.16, 95% CI −.79 to .47, by quadratic extrapolation and ρ = −.07, 95% CI −.47 to .34, by linear extrapolation, a correction that is poorly determined here because adding error of 0.05 to 5 times the sampling variance left the mean ρ between −.03 and −.04; meta-regression slope −0.03 points of gap per point of share, 95% CI −0.41 to 0.35; a moderate correlation in either direction is not excluded).

Changes at the median

Changes in the median had a median of −0.01%. Tested as the change in the share of earnings at or below the original median (Methods), five of 37 unadjusted p values were below .05. One change survived Holm adjustment: a rise of 5.1% for other therapists, the pooled code that includes exercise physiologists and whose scope exceeds the OEWS occupation's (Table 1 note; shift in the share −2.5 points, SE 0.5; 95% CI for the change +3.3% to +6.6%). Four survived Benjamini-Hochberg adjustment, the other three (pharmacists, registered nurses, and licensed practical and licensed vocational nurses) with median changes of −0.54% to −0.01%. A household-cluster bootstrap of the change, which does not reflect the survey design, agreed on the Holm result (95% interval +1.6% to +7.1%). With replicate standard errors, which the Table 3 note sets aside for medians, none survived.

Capped means and the cap rule stated in advance

With ACS wages capped at $250,000 the median was more comparable in 55.9% of pairs (permutation p = .16; 23 of 37 occupations), and on reported wages alone in 53.8% (p = .30; 24 of 37); a mean capped at $250,000 was more comparable than the uncapped mean in 67% of pairs (permutation p = .006; Table 2). Paired occupation-bootstrap intervals for the differences between variants are in Table 2 (percentile intervals from 5,000 resamples of the 37 occupations, each applied to every variant; the change in the net variance ratio from 2.3 was −0.88 (95% CI −2.86 to −0.20) with wages capped, −1.36 (−4.76 to −0.20) with capped and reported wages and −0.73 (−2.71 to −0.05) with only allocated wages capped, and its interval included zero on reported wages alone (−1.16; −4.58 to 0.02) and with only reported wages capped (−0.13; −0.27 to 0.01); the share of pairs favoring the median fell by 18.3 points (6.4 to 31.6) with capped and reported wages; allocated-only minus reported-only was 0.6 points (−7.8 to 8.5) in the share of pairs and −0.60 (−2.62 to 0.13) in the net variance ratio, both intervals including zero; with bias-corrected and accelerated intervals instead, the change in the ratio on reported wages alone (−5.31 to −0.02) and the fall in the share with only reported wages capped (0.15 to 12.48) narrowly excluded zero). Under the cap rule stated in advance (Methods), which caps each ACS 2024 wage at its state's top-code threshold, the median was more comparable against OEWS May 2025 than the capped mean in 408 of 666 pairs (61.3%; permutation p = .030, Holm-adjusted across the five caps p = .060; bootstrap 95% CI [48.7%, 72.9%]; 26 of 37 occupations, p = .106; net variance ratio 1.78, 95% CI 1.06 to 3.87), a difference not distinguishable after adjustment, and the capped mean was more comparable than the uncapped mean in 451 of 666 pairs (67.7%; Holm-adjusted p = .022; bootstrap 95% CI [53.9%, 79.7%]; net variance ratio 1.30, 95% CI 1.11 to 1.47). With each occupation's wages capped instead at its own 97.5th, 99th or 99.5th percentile, caps of $550,000 or more in the three technologist occupations, the median was more comparable in 66.1% to 67.4% of pairs (Holm-adjusted p .010 to .014), and at the 95th percentile in 61.3% (Holm-adjusted p = .060); the percentile-capped means were more comparable than the uncapped mean in 28.1% to 56.9% of pairs (Holm-adjusted p > .5) (Table 7).

OEWS vintage. Against OEWS May 2024 (released April 2, 2025), the same ACS 2024 estimates gave smaller level shortfalls and a similar comparability result. The May 2024 estimates pool six semiannual panels from November 2021 to May 2024 (BLS, 2025c), four of them shared with May 2025, and each release adjusts wages from earlier panels to its own reference date, so a change between releases combines wage change with panel replacement; the OEWS median was higher in May 2025 than in May 2024 in all 37 occupations, by 4.0 log points on average (range 0.3 to 18.1), and BLS does not encourage time-series use of OEWS (BLS, 2026c). ACS medians were below OEWS May 2024 medians in the same 36 of 37 occupations, by 16.4% on average (SE 0.5 points) against 19.7% for May 2025, a difference of −3.3 points (paired occupation bootstrap 95% CI −4.2 to −2.5); ACS means were below OEWS May 2024 means in 32 of 37 occupations, by 9.2% (SE 0.5) against 12.7% (difference −3.4 points, −4.5 to −2.6). On an hourly basis the median shortfall against May 2024 was 7.0% (SE 0.4) against 10.6%, and the share of the annual shortfall removed was 0.60 (bootstrap 95% CI 0.50 to 0.69) against 0.49 (difference +0.11, +0.08 to +0.15). Against May 2024 the ratio of medians was more comparable than the ratio of means in 425 of 666 pairs (63.8%; permutation p = .01; bootstrap 95% CI [51.8%, 74.3%]) against 430 (64.6%) for May 2025, a difference of −0.8 points (−6.4 to +4.3), with 83 of the 666 pair verdicts changing between releases (39 toward the median, 44 toward the mean); 28 of 37 occupations favored the median in a majority of their pairs (permutation p = .04). The occupation-specific net variances were 0.040 at the mean and 0.017 at the median, a ratio of 2.3 (bootstrap 95% CI 1.2 to 6.1; difference from May 2025 +0.02, −0.20 to +0.70), and for the single-occupation level the median was closer than the mean in 7 of 37 occupations against 9 (difference −2, −5 to 0). Among the 16 occupations outside the preliminary run the median was more comparable in 65 of 120 pairs (54.2%; permutation p = .39), and without the three technologist occupations in 324 of 561 (57.8%; p = .12); the floor, leave-one-out, pooled-code, cap and reported-wage checks against both releases are in Table 5. The share of pairs favoring the median moved by less than one point between the two releases, while the average shortfall at the median moved by about 3 points (Table 5).

Occupation switching and part-year earnings. ACS income covers all jobs held in the 12 months before the interview, whereas occupation is the current or most recent job, so a wage can include earnings from a prior occupation or from part of the year. Restricting the establishment-comparable universe to respondents who worked 50 or more weeks and were aged 30 and over reduces that source of error without removing it. In the 2024 ACS one-year file the restriction kept 78,497 of 112,137 records, a median 71.7% of each occupation's weighted universe (range 33.6% to 86.4%). Two occupations fell below 300 records, medical transcriptionists (199) and pharmacy aides (175); they were kept in the 37, and the comparison was repeated without them. Against OEWS May 2025, the ratio of medians agreed more closely than the ratio of means in 441 of 666 pairs (66.2%; permutation p = .002; bootstrap 95% CI 54.6% to 76.5%) and for 31 of 37 occupations in a majority of their pairs (permutation p = .01); the net variance ratio was 2.2 (bootstrap 95% CI 1.2 to 5.0). Paired occupation-bootstrap differences, unrestricted minus restricted, were −1.7 points in the

share of pairs (95% CI −12.9 to +9.4) and +0.1 in the net variance ratio (95% CI −0.8 to +1.6). Without the two occupations below 300 records, the share was 67.7% of 595 pairs against 65.4% unrestricted (difference −2.4 points, 95% CI −13.0 to +7.6); without the three imaging and cardiovascular technologist occupations, it was 61.3% of 561 pairs (permutation $p = .03$) against 59.2% (difference −2.1 points, 95% CI −15.5 to +11.2). The restriction moved levels far more than ratios. The average ACS shortfall at the median fell from 19.7% to 9.1% (SE 0.5 points; ACS below OEWS in 31 of 37 occupations), a fall of 12.3 log points (occupation-bootstrap 95% CI 9.8 to 15.2), and at the mean from 12.7% to about zero (ACS 0.1% above OEWS, SE 0.6 points; below OEWS in 19 of 37). With the weeks limit alone the median shortfall was 14.8% (SE 0.5 points), and with the age limit alone 11.8% (SE 0.6 points). For the single-occupation level, the median was closer than the mean in 17 of 37 occupations rather than 9 (difference −8, 95% CI −14 to −2). OEWS covers the jobs of workers under 30 and annualizes part-year jobs at 2,080 hours, so the restricted levels are not estimates on the OEWS concept; because the age limit removes lower-paid younger workers whom OEWS includes, the fall in the shortfall overstates what part-year earnings explain. Read only as a bound on occupation switching and part-year earnings, the result shows that the median's advantage in ratios persisted in the restricted group, with the paired interval excluding a fall of more than 9.4 points in the share, whereas the level comparisons, including the count of occupations for which the mean was closer, changed substantially.

Counts

Counts. The ACS counted 104,946 dietitians and nutritionists (SE 4,404) in the establishment-comparable universe in 2024, 1.35 times (SE 0.06) the 77,570 jobs in OEWS May 2025; for physical therapists the ratio was 1.14. The two surveys count different things, persons and jobs, and assign occupation differently (Differences between the instruments). Neither is a count of the credentialed workforce. The current national projections for the profession, commissioned by the Commission on Dietetic Registration (Gellar et al., 2026, pp. 9, 12), start from the credentialed registry, project it forward at its 2020 to 2025 compound annual growth rate, and assume that baseline demand exceeds supply by 10%. This report makes no projection; the series Introduction sets the survey counts beside the registry count with their dates.

The level gap: part-time and part-year work and the upper tails

About half of the common shift at the median, and of the standard deviation of log(ACS/OEWS) across occupations there, was removed on an hourly basis (Table 2 note): OEWS annualizes a wage rate at 2,080 hours whereas the ACS records realized annual earnings of part-time and part-year workers, whose prevalence differs across occupations. Restricting the ACS to full-time full-year workers narrowed the average shortfall at the annual median from 19.7% (SE 0.3 points) to 8.7% (SE 0.3 points; Woodruff standard errors; ACS 2024 against OEWS May 2025), removing 0.58 of it (bootstrap 95% CI 0.49 to 0.71) and bringing the ACS median closer to the OEWS median in 35 of 37 occupations (two-sided exact binomial $p < .001$), although the fall in the spread of the gap across occupations, 0.20 of its standard deviation (95% CI −0.08 to 0.37), was not distinguishable from zero. On the hourly basis, occupations with a larger share of workers who were not full-time full-year (usually under 35 hours a week or under 50 weeks worked) still had lower ACS-to-OEWS ratios at the median ($r = −0.37$, bootstrap 95% CI −0.60 to −0.09, 37 occupations; at the annual median, $r = −0.84$, 95% CI −0.92 to −0.66). The remainder includes wage growth between the ACS income period and the OEWS reference month, differences the sources do not reconcile, and, in the ACS, earnings from a prior occupation or from part of the year outside the current one, since income covers all jobs over the past 12 months (Results, Occupation switching and part-year earnings); premium pay, which the ACS includes and OEWS excludes, works the other way. The mean's excess occupation-specific error was concentrated in very high wage values, many of them allocated and some at state top-code amounts, although only a cap chosen after inspecting the tail reduced the advantage by a margin distinguishable from zero: the advantage fell significantly (8.7 points, 95% CI 1.5 to 16.0) with wages capped at $250,000, a threshold chosen after inspecting the tail (Table 2 note), and by 3.3 points (95% CI −1.4 to 8.3) with each wage capped at its state's top-code threshold, a rule stated in advance (Table 7), capping only allocated or only reported wages reduced it by similar amounts, neither distinguishable from zero, and capping only allocated wages lowered the variance ratio more (1.6 against 2.2; the allocated-only change from 2.3 excluded zero (−0.73, 95% CI −2.71 to −0.05) and the reported-only change did not (−0.13, −0.27 to 0.01), but the difference between the two, −0.60 (paired occupation-bootstrap 95% CI −2.62 to 0.13), includes zero; Table 2).

Appendix H. Guidance for users of ACS wage data

The three occupations behind most of the median's advantage in the ACS 2024 file show what to check before quoting an ACS wage, especially a mean.

1. **Check the allocation flag.** The PUMS person file flags wages the Census Bureau allocated (FWAGP). Report the allocated share beside any wage estimate; Table S3 gives it for all 37 occupations, and a high share in the upper tail is a screening signal for an unreliable mean.
2. **Check the state top-code file.** The Census Bureau replaces wages at or above a state-specific threshold with the state mean of those wages and publishes those values for each year (U.S. Census Bureau, 2025c). A value that recurs at the top of an occupation's distribution and equals a state's top-code is a replacement value, not the wage as reported or allocated: the underlying wage exceeded the state's threshold, and the Census Bureau substituted the published amount.
3. **For ratios between occupations, compare the median, a capped mean and the uncapped mean before choosing.** In the ACS 2024 file the median and a capped mean agreed with OEWS more closely than the uncapped mean (Table 2), though the advantage was weaker outside the occupations that suggested it, and for the median it was not confirmed in a pre-stated replication on the ACS 2023 file (Table 8). A capped mean was more comparable than the uncapped mean when the cap was a fixed dollar amount or the state top-code threshold, but not when each occupation was capped at its own 95th to 99.5th percentile (Table 7).
4. **For a single occupation's level, do not substitute one survey for the other.** ACS medians ran 19.7% below OEWS medians on average. The ACS mean was closer to OEWS in 28 of 37 occupations, but in some occupations it is lifted by allocated and top-coded upper tails, so that closeness is not evidence of accuracy.

5. **Name the vintage of both sources.** ACS income refers to the 12 months before interview; OEWS wages refer to a May reference date and pool three years of panels.

Worked example. Against OEWS May 2025, the ACS 2024 mean was 45% above the OEWS mean for magnetic resonance imaging technologists, 59% above for cardiovascular technologists and technicians, and 8% above for diagnostic medical sonographers, while the ACS medians of all three were below OEWS (Table S1). Of their wages of $250,000 or more, 70 of 71, 66 of 68 and 82 of 88 were allocated, and 37 of 71, 39 of 68 and 46 of 88 sat exactly on their state's top-code replacement value. The largest magnetic resonance imaging technologist wage in the file, $751,000, is New York's top-code (U.S. Census Bureau, 2025c). Of the records on a top-code, 36 of 37, 37 of 39 and 41 of 46 were allocated. The same replacement values recur across the 37 occupations: among their ACS 2024 wages of $250,000 or more, $601,000 appears 48 times, all in Texas, and $678,000 45 times, all in California; $570,000 (Florida, 39), $509,000 (Ohio, 41), $751,000 (New York, 33), $563,000 (North Carolina, 25), $589,000 (Pennsylvania, 22), $522,000 (Michigan, 21) and $594,000 (Georgia, 21) likewise each occur only in the state whose 2024 top-code they equal (U.S. Census Bureau, 2025c). Inferring a state's top-code from its most frequent high wage, instead of reading the Census file, misclassifies records: in the District of Columbia the most frequent wage of $250,000 or more in this extract, $600,000 (4 records), is not the District's 2024 top-code, $907,000.

Report 5

What pay equity adjustments do to the dietitian-to-physiotherapist pay ratio: seven public pay systems read from their instruments

The Dietetics Workforce Reports, Report 5, version 1.1 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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In brief

What it asks. When pay equity laws adjust public pay scales, what happens to dietitians' pay relative to physiotherapists'?

What it finds. In the Ontario and Quebec instruments read, pay equity changed that ratio only as a side effect of comparing each profession with men's jobs, and which way it moved followed the comparators and pay ranks chosen.

What it adds. The pay equity studies found in the search for this report compare women's pay with men's; none compares two mostly female professions inside one pay instrument.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every reported number was regenerated from the deposited code, run on the author's archived inputs, and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 2,737 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Plain-language summary

Pay equity laws in Ontario and Quebec compare a job held mostly by women with jobs held mostly by men. In the methods this report reads, they never compare two jobs held mostly by women, such as dietetics and physiotherapy (physical therapy in the United States), with each other. This report reads what those laws did to dietitians' pay relative to physiotherapists' in the pay documents of seven public systems in four countries.

In Ontario, the hospital pay equity plan lowered the dietitian's pay relative to the physiotherapist's for 2021 and 2022 and raised it from April 2023, depending on which men's jobs each profession was compared with. In Quebec, a 2021 settlement moved dietitians up one rank of a pay structure the parties had set. Where one scale covers both professions, as in Ireland and New Zealand, they are paid the same; British Columbia, with no pay equity law, pays dietitians about four percent less. The figures are scheduled pay rates, not take-home pay.

The sentence to repeat: pay equity law moved the ratio only as a side effect of comparing each profession with men's jobs; where the ratio was set on purpose, pay negotiators or expert bodies set it.

Abstract

Background. In the methods read here, pay equity statutes compare female-predominant job classes only with male comparators (Ontario's proxy method, not read here, compares a female class with female classes in another establishment), so the ratio between two such professions is set where the statutes do not reach. Pay equity studies found in this report's search compare women's pay with men's, not two mostly female professions in one instrument.

Objective. To read how pay equity law moves the dietitian's scheduled rate as a percentage of the physiotherapist's (physical therapist's, in US usage), and whether any instrument sets that ratio directly.

Methods. A structured comparison of dated pay instruments in seven public systems: two statutory revaluations read against counterfactual lines the instruments print, three consolidations and two without equal-value law.

Results. Ontario's 2023 plan moved the ratio by minus 3.8 points at the start rate and minus 2.5 at the job rate in its retroactive columns, and by plus 2.4 and plus 1.9 from April 1, 2023, when mediation replaced one band's comparator. From that date the job-rate ratio is that of two biomedical technologist grades. Quebec's 2021 accord placed the dietitian at rangement 22 (3.28 percent correctif, retroactive to 2010) and added a separate 2 percent. The United Kingdom's 2004 grid left the entry-grade ratio unchanged; Ireland and New Zealand reached parity by common scales; Alberta sits at parity and British Columbia about four points below, so levels do not sort by regime.

Conclusions. Examined after the fact against three explanations, the instruments fit two: at statutory events the ratio moved only as a side effect of each profession's comparison with men's jobs; its level was set by the parties or an expert body. No statute or decision read compares the two professions or decides which is worth more.

Keywords: comparable worth; wage relativities; job evaluation; male comparators; health professions; public sector collective agreements; Quebec; Ontario

Résumé

Contexte. Dans les méthodes que ce rapport examine, les lois sur l'équité salariale comparent les catégories d'emplois à prédominance féminine à des comparateurs masculins, jamais entre elles; le rapport salarial entre deux professions à prédominance féminine se fixe donc là où ces lois n'interviennent pas. Les études sur l'équité salariale repérées pour ce rapport comparent la rémunération des femmes à celle des hommes; aucune ne compare deux professions à prédominance féminine dans un même instrument de rémunération.

Objectif. Examiner comment les lois sur l'équité salariale modifient le taux prévu à l'échelle des diététistes-nutritionnistes exprimé en pourcentage de celui des physiothérapeutes (physical therapists dans l'usage des États-Unis), et vérifier si un instrument fixe ce rapport directement.

Méthode. Une comparaison structurée d'instruments de rémunération datés dans sept systèmes publics : deux réévaluations légales, confrontées aux lignes de comparaison que présentent les instruments eux-mêmes (Ontario, Québec), trois regroupements d'échelles (Royaume-Uni, Irlande, Nouvelle-Zélande) et deux systèmes sans loi sur le travail de valeur égale (Alberta, Colombie-Britannique).

Résultats. En Ontario, le programme de 2023 a modifié le rapport de −3,8 points au taux d'embauche et de −2,5 au taux de catégorie dans ses colonnes rétroactives, puis de +2,4 et de +1,9 à compter du 1er avril 2023, quand la médiation a remplacé le comparateur d'une bande. Depuis cette date, le rapport au taux de catégorie est celui qui sépare deux niveaux de technologue biomédical. Au Québec, l'accord de 2021 a porté la catégorie d'emplois des diététistes-nutritionnistes au rangement 22, avec un correctif de 3,28 % rétroactif à 2010, et a ajouté une majoration distincte de 2 %. Au Royaume-Uni, la grille de 2004 a laissé inchangé le rapport au grade d'entrée; l'Irlande et la Nouvelle-Zélande ont atteint la parité par des échelles communes; l'Alberta est à la parité et la Colombie-Britannique, environ quatre points au-dessous, de sorte que les niveaux ne se classent pas selon le régime.

Conclusion. Examinés après coup à la lumière de trois explications, les instruments en appuient deux : lors des événements prévus par la loi, le rapport n'a bougé que comme sous-produit de la comparaison de chaque profession avec des emplois masculins, et son niveau a été fixé par les parties ou par un groupe d'experts. Aucune loi ni décision examinée ne compare les deux professions ni ne décide laquelle vaut davantage.

Mots-clés : valeur comparable; relativité salariale; évaluation des emplois; comparateurs masculins; professions de la santé; conventions collectives du secteur public; Québec; Ontario

Key findings

- **Ontario.** The 2023 central hospital pay equity plan moved the dietitian against the physiotherapist by minus 3.8 points at the start rate and minus 2.5 at the job rate in the retroactive columns for 2021 and 2022. From April 1, 2023, when mediation replaced one band's comparator, the movement was plus 2.4 and plus 1.9. From that date the job-rate ratio is the ratio between two grades of biomedical technologist, the men's jobs the two professions were compared with.
- **Quebec.** The 2021 accord placed the dietitian at rangement 22 with a 3.28 percent correctif retroactive to 2010, and added a separate 2 percent; on the structure in force since 2019 one rangement is worth 1.5 percent at the first step and 5.0 at the eighteenth.
- **Consolidations and systems without equal-value law.** The United Kingdom's 2004 grid left the entry-grade ratio unchanged; Ireland (2000) and New Zealand (2023) reached parity by common scales; Alberta sits at parity and British Columbia about four points below, so levels do not sort by regime.
- **Which explanation fits, examined after the fact.** No statute or decision read compares the two professions. At statutory events the ratio moved only as a side effect of each profession's comparison with men's jobs, in either direction. Where its level was set on purpose, the parties or an expert body set it, across a whole structure or on stated grounds such as credentials.

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of one of the two professions whose pay this report compares. He owns Vitae Arete LLC, which publishes this report series and offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for

license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; the findings reported here do not bear on those proposals. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this work (Use of artificial intelligence). Apart from his employment by AdventHealth, his registration with the Commission on Dietetic Registration, which credentials him, and his Academy membership and workgroup seat disclosed above, he has no relationship with any union, employer, commission, tribunal or expert body named in this report. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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Use of AI tools

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

1. Introduction

This report asks what pay equity law does to dietitians' pay relative to physiotherapists' (physical therapists, as the profession is titled in the United States). In the methods this report reads, the statutes compare each female-predominant class with male comparators, never with each other, and the pay equity studies found in this report's search measure women's pay against men's, not one mostly female profession against another.

When one public pay instrument carries both professions, it prints their scheduled rates in one document at one effective date, and the ratio between them, a pay relativity in the industrial-relations term, can be read rather than estimated. The instruments read in this report place that ratio at different levels. The two professions share one scale in the United Kingdom, Ireland and, since 2023, New Zealand, and one pay grade at Alberta's second level; British Columbia's schedules put the dietitian about four points below the physiotherapist; and Ontario's adjusted schedule from April 1, 2023 and Quebec's scales from 2021 put the dietitian above the physiotherapist at the first steps and below at the top (Table 5). A reading at one date cannot say what set those levels or what moves them. A companion analysis of dietitian and physiotherapist pay across public pay instruments is Report 8 of this series, *Same grid, different rung* (released September 29, 2026, 10.5281/zenodo.23044630).

This report reads two measured changes and five dated events. A pay equity statute produces dated events inside systems whose instruments and entry credentials do not change on the same day, and in the two revaluation cases the instruments print the counterfactual themselves. Ontario's central hospital agreement prints its wage schedules twice, with and without the pay equity plan. Quebec's health-sector Nomenclature prints the dietitian's scale beside the plain scale of its rangement, the salary rank of the grid, and beside the scale of the rangement below, so the 2021 accord's 2 percent can be read against the scale that would have been paid without it, and its rangement placement against the scale of a class one rung lower.

The question matters because the statutes do not address the quantity measured. Quebec's Act exists to redress differences in compensation due to systemic gender discrimination suffered by persons in predominantly female job classes, and Ontario's "to redress systemic gender discrimination in compensation for work performed by employees in female job classes" (Loi sur l'équité salariale, s. 1; Pay Equity Act, s. 4(1)); in the methods read here both compare a female class to a male comparator, and dietetics and physiotherapy are female-predominant classes in both provinces. The Office québécois de la langue française distinguishes *équité salariale*, the correction of sex-based undervaluation, from *relativité salariale*, the relative value of job classes to one another without regard to sex (Office québécois de la langue française, 2026), and the minister's report on the Act states its principle as equitable pay between jobs of equivalent value within one enterprise (Ministère du Travail du Québec, 2006). This report measures a relativity; the statutes address equity; the question is how the second determines the first.

The instruments give the answer: the statute determines the relativity only as a by-product, in the units of the instrument it acts on, and the instrument can be read to see how much and which way. They also show relativities set deliberately: by Quebec's parties across their whole structure in 2019, rebuilt by negotiation, and by Ontario's for three bands of the plan, set by formula; in Quebec a statutory accord later moved one class within the structure the parties had set.

Research questions and hypotheses. The report asks two questions of each instrument. First, when pay equity law adjusts a public pay scale, how does the dietitian-to-physiotherapist pay ratio move? Second, does the law or the instrument set that ratio directly, or only as a side effect of comparing each profession with male comparators? Both are documentary questions, answered by reading the dated instruments before and after each event, so the report is descriptive.

Three explanations, named after the instruments were read. The ratio could be set in three ways, and each leaves a different pattern in dated instruments. If the statute valued the two professions against each other, a statutory document would compare them, and levels would sort by regime. If the ratio is a side effect of each profession's comparison with male jobs, it would move at statutory events in the instrument's units, in whichever direction the two comparisons point, and no document would address the pair. If the parties set relativities deliberately, the ratio's level would be set in structure-wide negotiation or classification, on stated grounds, with or without equity law. These explanations were named after the instruments had been read, so section 8 classifies what the documents show against them; it does not test a prediction.

2. What the statutes do, and what has been measured

2.1 Equity is female against male

Quebec's Loi sur l'équité salariale states its purpose in the first sentence of section 1: "La présente loi a pour objet de corriger les écarts salariaux dus à la discrimination systémique fondée sur le sexe à l'égard des personnes qui occupent des emplois dans des catégories d'emplois à prédominance féminine" (RLRQ, c. E-12.001, s. 1) [official English version: The purpose of this Act is to redress differences in compensation due to the systemic gender discrimination suffered by persons who occupy positions in predominantly female job classes]. The employer values the female classes against the male classes of the same enterprise, in the public sector by the global method, which compares each to one pay curve built from all the male classes (Commission des normes, de l'équité, de la santé et de la sécurité du travail [CNESST], 2023a, paras. 1273, 1729), and must repeat the exercise: "Cette évaluation et les affichages prévus au présent chapitre doivent être effectués tous les cinq ans …" (s. 76.1) [official English version: Every five years … the pay equity audit and postings prescribed by this chapter must be conducted or made]. The 2019 amendments followed *Quebec (Attorney General) v. Alliance du personnel professionnel et technique de la santé et des services sociaux* (2018 SCC 17), which held unconstitutional the 2009 provisions that made maintenance adjustments payable only from the posting of a maintenance evaluation; since then grouped complaints can be settled by an accord reached in conciliation and ratified by associations representing a majority of each class concerned (s. 103.0.1), which "règle toute plainte visée par celui-ci et lie chaque association accréditée ainsi que, le cas échéant, chaque salarié ayant déposé une telle plainte" (s. 103.0.2) [official English version: settles all complaints covered by the agreement and binds every certified association and, where applicable, every employee having filed such a complaint], subject to a thirty-day opt-out.

Ontario's Pay Equity Act is built the same way. "The purpose of this Act is to redress systemic gender discrimination in compensation for work performed by employees in female job classes" (R.S.O. 1990, c. P.7, s. 4(1)); a female job class is one in which 60 percent or more of the members are female (s. 1(1)); pay equity is achieved "when the job rate for the female job class that is the subject of the comparison is at least equal to the job rate for a male job class in the same establishment where the work performed in the two job classes is of equal or comparable value" (s. 6(1)), the male class being, where several qualify, the one with the lowest job rate (s. 6(3)(a)); a plan agreed with a bargaining agent is posted in the workplace and deemed approved without filing (ss. 14(4), 14(5)). In the methods this report reads, two female classes are never compared with each other for pay, as Quebec's Commission has said: "l'objet de la Loi n'est pas d'assurer la relativité interne dans une entreprise" (CNESST, 2023a, para. 483) [in English: the object of the Act is not to ensure internal relativity within an enterprise]; and, of its own review of the scores, "il ne s'agit pas de comparer les CEPF entre elles", CEPF being the decision's abbreviation for predominantly female job classes (para. 632) [in English: it is not a matter of comparing the predominantly female job classes with one another]; "la Loi ne vise pas à corriger des écarts de rémunération entre des catégories d'emplois à prédominance féminine" (CNESST, 2023b, para. 38) [in English: the Act does not aim to correct pay differences between predominantly female job classes]. The relativity between two female classes is determined by the comparisons the statute compels, not by any provision addressed to it.

New Zealand's Equal Pay Act 1972, as amended in 2020, let a union raise a pay equity claim for female-dominated work and settle it by agreement (Parker & Donnelly, 2020), the process under which the claims of 2018 and 2020 read in 6.3 were settled in 2023. The Act was amended again with effect from May 14, 2025; read against the amendment, the 2023 settlement's review clause has had no effect since that date (Appendix H). The United Kingdom has equal-value law and one judgment from inside this report's subject: in *Enderby v Frenchay Health Authority*, a speech therapist's claim against a pharmacist and a clinical psychologist, the European Court of Justice held that pay rates "arrived at by collective bargaining processes which, although carried out by the same parties, are distinct, and, taken separately, have in themselves no discriminatory effect" are not sufficient objective justification for a difference in pay between jobs of equal value (*Enderby*, 1993, para. 23; Fredman, 2022), and the NHS job evaluation handbook records that the judgment, "together with the need to simplify the existing pay systems, influenced the decision to introduce a new job evaluation scheme" (NHS Staff Council, 2024, chapter one, para. 3.4). Ireland has had equal-value law since the Anti-Discrimination (Pay) Act 1974, s. 3(c), now section 7(1)(c) of the Employment Equality Act 1998. Alberta's Human Rights Act (R.S.A. 2000, c. A-25.5, s. 6) and British Columbia's Human Rights Code (R.S.B.C. 1996, c. 210, s. 12) reach equal pay for similar work; British Columbia's index of statutes, walked in September 2026, carries a Pay Transparency Act (S.B.C. 2023, c. 18) and no pay equity Act, and Alberta's catalogue of Acts, current to August 31, 2026, carries none.

2.2 What has been measured, and what has a name

The outcome literature on comparable worth, which measures women's pay against men's, is summarized in Appendix H. That a female class's job rate becomes its comparator's is the Ontario Act's own definition of success, and that the relativity between two female classes becomes the relativity between their comparators follows at once; no study read here reads it off a filed instrument before and after the event. The Quebec scholarship has a name for the quantity. Déom and Mercier (1992) set out how jobs are made comparable, and later that the logics of pay equity and of industrial relations conflict (Déom & Mercier, 2001); Chicha (2002) documents the Act's compromises; Hallée (2014), from collective agreements,

argued that the Act may have complementary effects on the classes it does not cover, and that the passage to *relativité salariale*, updating the structure with the equity tools as the public-sector rounds have done, is a decision of the parties on which the Act is silent. A search of OpenAlex and the Érudit venues in September 2026 found no study expressing one health profession's pay as a proportion of another's inside a Quebec instrument.

The quantity has an older name in industrial relations. Ross (1948) described wage setting as governed by orbits of coercive comparison, Dunlop (1957) by job clusters and wage contours in which key rates carry the rest of a structure, and Brown and Sisson (1975) showed how such comparisons are selected and defended at the workplace; job evaluation institutionalises the comparison and prints it as a grid, and what the grid scores is itself a negotiated construction of skill (Steinberg, 1990). In the methods read here, a pay equity statute inserts one compelled comparison, female class to male comparator, into a structure held together by comparisons of that older kind, and leaves every other comparison to be re-derived from it; the relativity between two female classes is the by-product, in the units of the grid that carries them, and the instruments read here print both scales, which is what lets it be calculated rather than estimated.

3. Design: a structured comparison of dated pay-instrument events

3.1 The unit of measurement

The quantity read throughout is the dietitian's scheduled rate as a percentage of the physiotherapist's at the same grade and step inside one instrument, at one effective date. Both figures come from one document, so no currency conversion enters and the ratio is a pure number; both carry one effective date, so a general increase applying the same percentage to both professions cancels, and the ratio moves only when an instrument reprices one profession relative to the other. A comparable worth adjustment does that; Ontario's arbitrated 1.75 percent at the maximum rate, from September 1, 2023, reached both professions and left the ratio unchanged (Ontario Public Service Employees Union [OPSEU], 2023c). A ratio that moves only at reprice events is a step function by construction, systems without such events supply no counterfactual trend, and a pooled estimator across systems would mean nothing; the report is not an event study in the econometric sense. It is a structured, focused comparison of documentary cases in the sense of George and Bennett (2005): the same three questions are put to every instrument (what event, if any, repriced one profession relative to the other; what counterfactual the instrument prints; what the ratio did), and the answers are read, not estimated. Because every figure is a printed scheduled rate, each ratio is an exact function of public numbers, not a sample estimate, and carries no sampling error; its uncertainty lies in transcription, which the deposited gate checks against the archived instruments (for Ontario, Alberta and British Columbia, against records of them, and for the United Kingdom's Whitley rows and Band 5 profiles, in part against the author's tables of them, as Appendix D describes), and in the reading of what each instrument prints, which the text states case by case. Where a figure summarises a whole scale, the text names the summary: in Quebec, the unweighted mean of the eighteen step ratios (Appendix D compares it with the ratio of the scales' means).

3.2 Events, quantities and reference systems

Table 1 lists the systems under a four-way typology. In a **revaluation event** an instrument reprices one class relative to another under a statutory process (Quebec, Ontario); in a **consolidation event** parity arrives by architecture, when separate scales become one (Ireland, New Zealand); the United Kingdom's 2004 grid is a consolidation that was a **null event**, because the Whitley scales it replaced already coincided at the entry grade; Alberta and British Columbia carry **no event** and no pay equity statute, and are reference systems read at one date each.

Two quantities are read, labelled E1 and E2 for brevity; neither is estimated. E1 is the change in the ratio at a named adjustment, measured against the ratio the same instrument prints without it; where both schedules are printed it is an identity, the adjusted ratio being the unadjusted ratio multiplied by $(1 + a_D)/(1 + a_P)$ when the adjustment raises the dietitian's rate by a proportion a_D and the physiotherapist's by a_P. Ontario prints both schedules; Quebec prints the plain rangement 22 scale under other titles, the dietitian's scale as 1.02 times it, and the rangement 21 scale, so the accord's 2 percent has a printed counterfactual and its rangement placement a printed line for a class one rung lower (4.3). E1 is the effect of the adjustment, not of the statute, since the schedule an adjustment is measured against was itself bargained under the Act. E2 is a descriptive comparison of the ratio's levels across regime types (Table 5): equity law with machinery in the instrument (Quebec, Ontario, New Zealand and the United Kingdom, whose grid carries a job evaluation scheme but no event for these professions), equity law without it (Ireland), and neither (Alberta, British Columbia).

Table 1. The seven systems: regime type, the statute and sections read, the instrument read and its vintage, the line the instrument prints to read the event against, and the event with its dates.

System	Regime type	Statute and sections read	Instrument read, with vintage	Counterfactual or comparison line printed	Event and dates
Quebec	Equity law with machinery in the instrument	Loi sur l'équité salariale, RLRQ, c. E-12.001, ss. 1, 76.1, 76.9, 103.0.1, 103.0.2	Nomenclature des titres d'emploi, catégorie 4, version of July 16, 2024: titles 1219, 1233, 1202 and 1557; nine rate columns, April 2, 2019 to April 1, 2027 (a later edition is posted as in force: the file dated June 9, 2026, from the Comité patronal de négociation du secteur de la santé et des services sociaux prints the same rangements for the four titles and the same rates to April 1, 2025, adds a March 31, 2026, column and prints the April 1, 2026 and April 1, 2027, rates 3 to 7 cents an hour higher; checked September 15, 2026, Appendix F)	Plain rangement 22 scale (title 1202) for the 2 percent; rangement 21 scale (title 1557) as the line for a class one rung lower	Revaluation: accord of July 29, 2021; class raised to rangement 22 with a 3.28 percent correctif applied to the whole scale from December 31, 2010; 2 percent from March 20, 2021
Ontario	Equity law with machinery in the instrument	Pay Equity Act, R.S.O. 1990, c. P7, ss. 1(1), 4(1), 6(1), 6(3)(a), 9(1), 9(3), 14(4), 14(5)	Hospital Professionals Division central agreement, April 1, 2022 to March 31, 2025, as filed: two schedules, with and without pay equity, five columns April 1, 2021 to April 1, 2024 (term expired March 31, 2025; the division's bargaining team reported in March 2026 that interest arbitration had been heard by arbitrator Colin Johnston, with a final and binding decision to follow; a search of the Collective Agreements e-Library listing dated September 1, 2026, made on September 15, 2026, found no successor agreement of the Ontario Public Service Employees Union at any hospital whose agreement with it ran from April 1, 2022 to March 31, 2025; Appendix F)	Schedule unadjusted by pay equity	Revaluation: central plan settled by mediation, November 2022; go-forward adjustments from April 1, 2023; retroactivity from April 1, 2007
United Kingdom	Equity law; the grid carries a job evaluation scheme, with no event for these professions	Statute not read for this report; *Enderby* (1993)	Whitley circulars 2002 to 2004; Agenda for Change pay circular 2026; national job profiles of 2004 and 2005	Scales before and after coincide at the entry grade	Consolidation, null: Agenda for Change 2004; parity at the entry grade predates the grid
Ireland	Equity law without machinery in the instrument	Anti-Discrimination (Pay) Act 1974, s. 3(c); Employment Equality Act 1998, s. 7(1)(c)	Health Service Executive consolidated salary scales, June 1, 2026; Expert Group report, April 2000	None (scales before 2000 not retrieved)	Consolidation by recommendation, with effect from April 1, 2000
New Zealand	Equity law with machinery in a settlement	Equal Pay Act 1972 as amended in 2020, the settlement's basis (amended again from May 14, 2025, by the Equal Pay Amendment Act 2025, Public Act 2025 No 21, Royal assent May 13, 2025: s. 4(2), s. 29 and Schedule 1, Part 2, clauses 7 to 10 as inserted)	Two Association of Professional and Executive Employees agreements, from May 2 and June 4, 2022; settlement translation schedule, June 1, 2023	None like-for-like: the two pre-settlement scales carry effective dates one month apart	Consolidation by settlement, completed November 3, 2023; new scale effective June 1, 2023
Alberta	No equal-value law	Alberta Human Rights Act, R.S.A. 2000, c. A-25.5, s. 6	Health Sciences Association of Alberta agreement, April 1, 2024 to March 31, 2028, ratified copy, at April 1, 2026, rates (the column in force at release; the April 1, 2027, rows are future rates)	None	No event; no pay equity statute

System	Regime type	Statute and sections read	Instrument read, with vintage	Counterfactual or comparison line printed	Event and dates
British Columbia	No equal-value law	Human Rights Code, R.S.B.C. 1996, c. 210, s. 12	Health Science Professionals wage schedules G and J effective the first pay period after April 1, 2026, the columns in force at release (the 2027 and 2028 columns printed with them are future rates); maintenance agreement and classification manual, August 29, 2023	None	No event; no pay equity statute

Source: the instruments, statutes and decisions cited in the text; regime types as defined in 3.2.

3.3 The trap, in both its forms

Comparing across instruments with different effective dates measures which agreement is newer, not which profession is valued more; every pre-period figure here is a scale in force at its own date, not a future rate printed in an earlier agreement. The trap has a second form when an adjustment is retroactive: backdated restatement. Quebec's accord raised the dietitian's rangement with effect from December 31, 2010 and was signed in July 2021, so the current Nomenclature prints the 2019 and 2020 dietitian columns as if the accord had always applied; a series built from that edition shows the 3.28 percent correctif, the accord's word for the equity adjustment, nowhere and the 2 percent as a step, and the rangement placement is visible only as the distance to the rangement 21 scale printed beside it. Every Quebec ratio is a snapshot dated after November 7, 2023, when the comparator profession's complaints against the 2010 exercise were decided by the Commission; the union's contestation before the Tribunal administratif du travail was announced in December 2023 (no decision on it was found: a search on September 22, 2026, of the union's own decisions page, which records the November 7, 2023, decision and the announced contestation but posts no Tribunal decision, and of web indexes restricted to canlii.org, soquij.qc.ca, tat.gouv.qc.ca and the union's site, returned none; the Tribunal's own reasoned decisions are published only through the Société québécoise d'information juridique, whose search requires a challenge this work does not complete); the 2020 maintenance results, posted from December 21, 2023 and open to complaint until May 18, 2024, changed neither title's rangement in the edition read, and the union's page says it will file a general complaint against that exercise (Alliance du personnel professionnel et technique de la santé et des services sociaux [APTS], n.d.). A later edition of the Nomenclature, and what it changes, is described in Appendix H.

3.4 Sources

Every rate is read from the issuing instrument as filed or published, every statutory passage from the official consolidation, and Ontario's band assignments from the union's posting of a plan the Act deems approved without filing (Pay Equity Act, ss. 14(4), 14(5)). The study used only published pay instruments and public legal records, so no ethics review was required. The extracted rates and the code that computes every ratio are deposited at 10.5281/zenodo.23044642 (Data availability); the pay instruments themselves are third-party documents, identified in the References, and are not redistributed, except for two items described in Data availability. English renderings in square brackets after French quotations are the author's translations, except the three passages of Quebec's Act quoted in 2.1 (ss. 1, 76.1 and 103.0.2), which reproduce the Act's official English version and are labelled as such (Pay Equity Act, CQLR, c. E-12.001, updated to April 7, 2026, LégisQuébec, retrieved September 15, 2026); the renderings of the Commission's decisions, the accord and the Nomenclature are made from those documents in French, and each rendering was checked against its French source.

4. Quebec: an accord with two components, and an instrument that prints the lines to read them against

4.1 The event

The instrument is the *Accord de maintien de l'équité salariale concernant les techniciens et professionnels de la santé et des services sociaux*, signed on July 29, 2021, by the Conseil du trésor and the APTS, settling complaints against the Conseil du trésor's maintenance evaluations of 2010 and 2015 (Conseil du trésor & APTS, 2021). It is a statutory settlement under ss. 103.0.1 and 103.0.2, not a collective agreement or a tribunal order, and its retroactivity to December 31, 2010, with interest (para. 15) is a term negotiated under the settlement mechanism the 2019 amendments created.

The accord did two things for the dietitian class. Paragraph 10 raised job class 19, *Diététiste-nutritionniste*, title 1219, to rangement 22 "au 31 déc. 2010" [at December 31, 2010] with a correctif of 3.28 percent, on a re-scored evaluation of 797 points (Annexe 3), twelve above that rangement's floor on a grid of 28 rangements at 29-point intervals from 176 points (CNESST, 2023a, para. 554). Paragraph 10 calls the change a "hausse de rangement" [a rangement increase], and paragraph 14 applies the correctif to the whole scale: "L'échelle de traitement des catégories d'emplois visées par le présent accord est bonifiée du correctif prévu au paragraphe 10" [the salary scale of the job classes covered by this accord is increased by the correctif provided for in paragraph 10]. Two dated periods follow, and this report keeps them apart. From December 31, 2010 to April 1, 2019, the correctif is one percentage applied to the whole of the class's scale; for the classes whose scales the accord's Annexe 4 prints before and after, the uplift is the same proportion at every step (Annexe 4 of the accord of July 29, 2021, prints those scales in a column to December 30, 2010 and a column from December 31, 2010, or, for class 273, to March 19, 2016 and from March 20, 2016. Across that date the eighteen steps of titles 1204, 1254 and 1255 (class 13) rise by 5.95 to 5.99 percent, the twelve steps of titles 2242 and 2282 (class 78) by 4.65 to 4.69 percent and those of title 2261 (class 273) by 4.45 to 4.48 percent; allowing for the rounding of printed cents, one factor fits every step of each class (5.95 to 5.98, 4.65 to 4.69 and 4.44 to 4.49 percent). For classes 78 and 273 that factor contains the printed correctif, 4.67 and 4.47 percent; for class 13 it exceeds the printed 4.99 percent by about one percentage point, a difference for which no reason was found in the accord or in the Commission's decision of September 28, 2023, so the

audiologists' uplift is not used to reconstruct an earlier scale for any other class. Annexe 4 prints title 1219's scale only from its December 31, 2010, column, with no earlier column, and keeps one proportion at every step at each change to April 1, 2019; the scale changes shape at April 2, 2019, when step 1 rises 5.38 percent and step 18 2.49 percent). From April 2, 2019, the class sits on rangement 22 of the relativités salariales structure (4.3), in which the rung between rangement 22 and rangement 21 is worth 1.5 percent at the first step and 5.0 at the eighteenth, a shape the 2019 exercise produced, not the accord. Paragraph 17 then provides, for this class alone, that "chacun des échelons de l'échelle de traitement de la catégorie d'emplois est majoré de 2 % à compter du 20 mars 2021" [each step of the job class's salary scale is increased by 2 percent from March 20, 2021], paid "sans intérêt" [without interest], and paragraph 18 makes the 2 percent recoverable: should a correctif later be awarded, "le pourcentage de la majoration de traitement sera diminué du correctif d'équité salarial [sic], jusqu'à un maximum de 2 %" [the percentage of the salary increase will be reduced by the pay equity correctif, up to a maximum of 2 percent]. The accord does not say why. The 2 percent can be read as a negotiated increase carried inside a statutory settlement or as an advance against remaining equity exposure, recoverable had the Commission later granted more, which it did not; the report takes no position and reads it as the instrument prints it, a scale 1.02 times the plain scale of its rangement.

The comparator profession was carved out. Paragraph 4 preserves the union's complaints for the three physiotherapy classes, and the annexes contain no physiotherapist scale. The union's account is that the employer treated those complaints as a separate case and tied their settlement to acceptance of its bargaining offer (APTS, 2021); the accord gives no reason, and physiotherapy received nothing under this instrument.

4.2 The Commission's record

The Commission decided the complaints that survived the accord, those of employees who opted out and the physiotherapy classes' preserved complaints, on September 28, 2023 (CNESST, 2023a, paras. 814–815). It recites that under the accord it was agreed that the dietitian class's evaluation "soit rehaussée au rangement 22 et que les ajustements salariaux soient rétroactifs au 31 décembre 2010" [be raised to rangement 22 and the salary adjustments be retroactive to December 31, 2010], by raising three sub-factor scores (paras. 812–813); it upheld the dietitian's professional training score of 8.5 (paras. 880–881), found the evaluations of both classes fair and the complaints unfounded (paras. 909, 1258). The complaint it rejected was itself about training, that the second-cycle degree should score 10 (para. 1223; CNESST, 2023b, para. 31); the sub-factors the accord raised for the dietitian, and those the Commission compared for the physiotherapist, lie outside training (paras. 813, 1245, 1255–1257).

On November 7, 2023, the Commission, under a different presiding vice-president, found unfounded the physiotherapist classes' complaints under s. 76.9, which forbids an employer to act in bad faith, arbitrarily or discriminatorily, or with gross negligence, in maintaining pay equity: the complaints alleged that the employer had not recognised the second-cycle degree, and the Commission held that the master's requirement for membership of the Ordre professionnel de la physiothérapie du Québec entered the regulation on May 12, 2011, after the obligation date of December 20, 2010, so the employer could not have breached the article in its 2010 exercise (CNESST, 2023b, paras. 25, 46–49). No further correctif was awarded to the dietitian class, so paragraph 18 was never triggered. The training sub-factor is 8.5 for both classes at the 2010 valuation (CNESST, 2023a, paras. 881, 1235), though neither decision prints the physiotherapist's rangement at that valuation, and its rangement 23 dates from the 2019 structure. The union announced a contestation of that decision before the Tribunal administratif du travail (APTS, 2023); no decision on it has been found. The Commission set February 5, 2024, as the date by which that decision could be contested before the Tribunal, and the union stated on December 12, 2023, that it would proceed. Searched on September 22, 2026: the union's decisions page, read live, which records the November 2023 decision and the intention to contest and posts no Tribunal decision; and web indexes restricted to canlii.org, soquij.qc.ca and tat.gouv.qc.ca, which returned no Tribunal decision on the matter. The Tribunal's reasoned decisions are published only through the Société québécoise d'information juridique, and both that index and the CanLII index presented an access challenge on that date which this work did not complete, so the absence is a result of the searches named and not of a reading of either index in full. Litigation over the 2010 exercise has also continued for other classes: according to union and press reports, the decisions themselves not having been retrieved for this report, the Tribunal administratif du travail held on November 4, 2024, that the graduate diploma (diplôme d'études supérieures spécialisées, D.E.S.S.) required of specialised nurse practitioners must be recognised and that the training sub-factor of the 2010 evaluation tool must be changed to account for credentials falling between the master's and the doctorate, and dismissed the Conseil du trésor's application for review of that decision on April 15, 2026 (Syndicat canadien de la fonction publique [SCFP], 2026a; Fédération interprofessionnelle de la santé du Québec [FIQ], 2026), and on June 12, 2026, found the responsibilities and physical effort of the spécialistes en orientation et mobilité, the class printed as title 1557, greater than the evaluation had recognised and ordered salary adjustments from December 31, 2010, with interest (SCFP, 2026b; Lévesque, 2026). The reports do not list the classes that the change to the training sub-factor reaches beyond the nurse practitioners, and none of them names the dietitian or physiotherapist class; the Nomenclature read here requires a bachelor's degree for 1219 and a master's degree for 1233, and its edition of July 16, 2024, which predates the June 12, 2026, decision, prints 1557 at rangement 21.

Box 1. The Quebec evaluation record, class by class. The record is set out for each class separately. It does not decompose the difference between the two classes' placements, and none is attempted here.

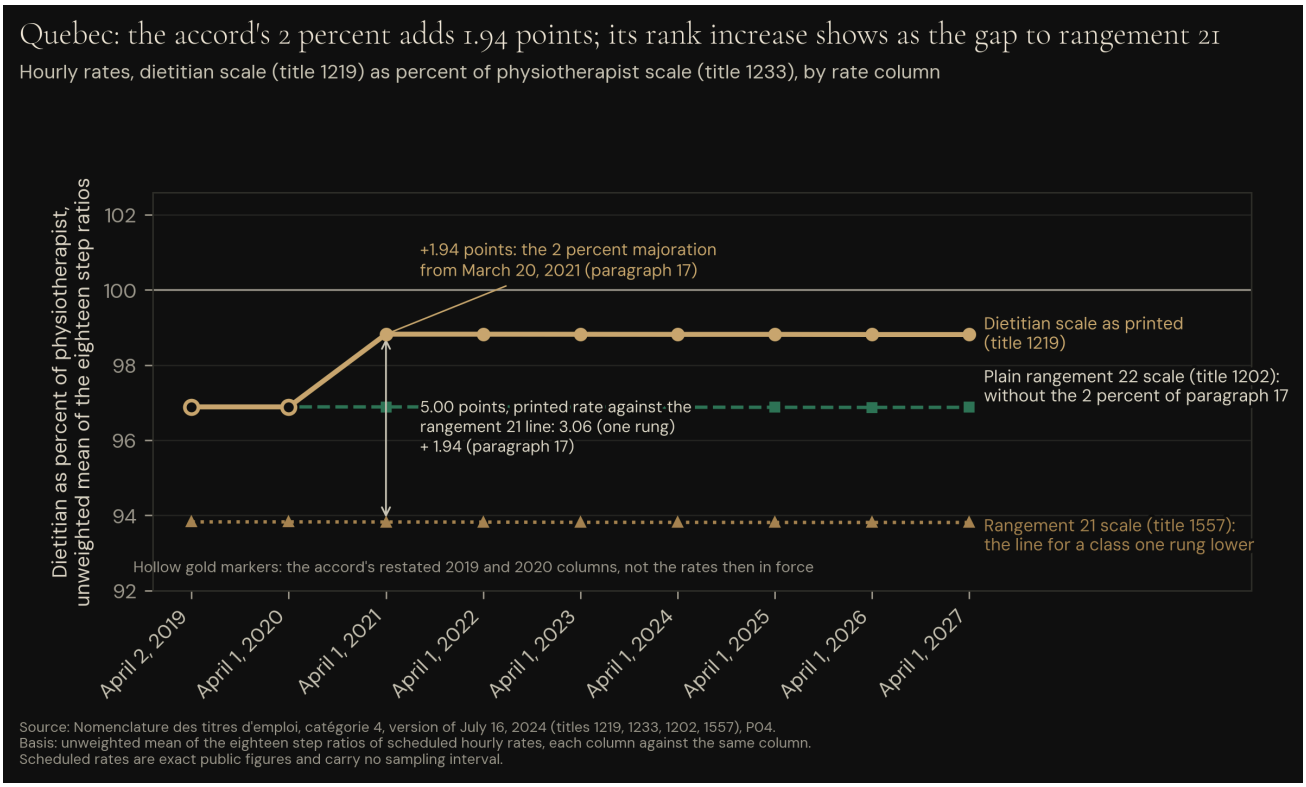
- **Dietitian (job class 19, title 1219).** Under the accord, the Commission records, the class's evaluation was raised to rangement 22 with salary adjustments retroactive to December 31, 2010, by changing three sub-factor scores: sub-factor 3, créativité [creativity], from 2 to 3; sub-factor 14, habiletés physiques et dextérité manuelle [physical skills and manual dexterity], from 1 to 2; and sub-factor 17, risques inhérents [inherent risks], from 1 to 2 (CNESST, 2023a, para. 813). The re-scored evaluation totals 797 points (accord, Annexe 3). On the complaints that survived the accord, the Commission found the score of 8.5 on sub-factor 10, formation professionnelle [professional training], fair and consistent (para. 881). The Nomenclature prints the class's entry requirement as a bachelor's degree in dietetics or nutrition and its rangement 22 from December 31, 2010, with no earlier placement (4.3).
- **Physiotherapist (job class 16, title 1233).** The Commission found professional training at a score of 8.5 and sub-factor 11, expérience et initiation [experience and induction], at 5 at the obligation date (CNESST, 2023a, para. 1235). The class's score on sub-factor 14 had been raised in the pay equity maintenance evaluation and is higher than the occupational therapist's (para. 1245). Against occupational therapy the effort scores are the same on three of five sub-factors; occupational therapy scores higher on sub-factor 3, créativité, and physiotherapy on sub-factor

5, efforts physiques [physical effort] (para. 1257). The master's requirement for membership of the Ordre professionnel de la physiothérapie du Québec entered the regulation on May 12, 2011 (CNESST, 2023b, paras. 46–49). The Nomenclature prints the class's entry requirement as a master's degree in physiotherapy, a placement in groupe salarial 772 until April 1, 2019 and rangement 23 from April 2, 2019 (4.3). The class's rangement at the 2010 valuation is printed in neither decision, the accord nor the Nomenclature edition read.

4.3 The instrument, and what it prints

The *Nomenclature des titres d'emploi, des libellés, des taux et des échelles de salaire du réseau de la santé et des services sociaux*, catégorie 4, version of July 16, 2024, prints for every title a rangement and a dated hourly scale of eighteen steps, in nine columns from April 2, 2019 to April 1, 2027 and, for the dietitian, one more at March 20, 2021 (Nomenclature des titres d'emploi, 2024). The edition dates from the restructuring of April 2, 2019, when an exercise of *relativités salariales* agreed at the 2015 to 2020 renewal, whose object was internal equity between job classes by their relative value regardless of sex predominance and for which no statute provides, brought every class in the parapublic programme onto a new structure with one scale per rangement (Secrétariat du Conseil du trésor, n.d.). Title 1219 is at rangement 22 "à compter du 31 décembre 2010" [from December 31, 2010], the only title read whose rangement is dated to the accord rather than to that structure, and its block prints no earlier placement; 1233, *Physiothérapeute*, is at rangement 23 from April 2, 2019, and its block also prints "Jusqu'au 1er avril 2019, groupe salarial 772" [until April 1, 2019, salary group 772], its placement before the 2019 structure; 1202, *Biochimiste*, is a plain rangement 22 title and 1557, *Spécialiste en orientation et en mobilité* [orientation and mobility specialist], a plain rangement 21 title (its 2010 evaluation is the subject of the Tribunal administratif du travail decision of June 12, 2026, described, from union and press reports, in 4.2, and the edition read predates that decision; the only other titles the edition prints at rangement 21, 1560, *Spécialiste en réadaptation en déficience visuelle*, and 1701, *Conseiller d'orientation ou conseillère d'orientation*, print the same rate as 1557 at all eighteen steps in all nine columns, so the rangement 21 line does not depend on which of the three is read). Every plain title at a rangement carries the same scale in every column, so each line in Table 2 is the scale of a rangement, not of a title. Beside those rangements the instrument prints each title's entry requirement: "Doit détenir un baccalauréat en diététique ou en nutrition" [must hold a bachelor's degree in dietetics or nutrition] for 1219 and "Doit détenir une maîtrise en physiothérapie" [must hold a master's degree in physiotherapy] for 1233 (Box 1). The correctif for a class is sized as the gap between its maximum rate and the male curve's rate at the corresponding rangement (APTS, 2021), so the structure's rangements are anchored on the curve built from the male classes.

Table 2 reads the scales against one another at each column. The dietitian's scale is the biochemist's in the two pre-accord columns and 1.02 times it from March 20, 2021, to the rounding of printed cents, so the plain rangement 22 line is the scale the dietitian would have had without paragraph 17; the dietitian's ratio to the physiotherapist is 96.89 percent in the 2019 and 2020 columns and 98.8 from 2021, a step of 1.94 points on the unrounded means (Figure 1), and without paragraph 17 it would have stayed within 0.02 of 96.89 through 2027, because the plain line is flat. The plain rangement 22 scale stands 3.28 to 3.29 percent above the rangement 21 scale on the unweighted mean of the eighteen step ratios in every column (on the ratio of the two scales' means, each scale's mean hourly rate across its eighteen steps, the gap is 3.46 percent in every column from April 2, 2019 to April 1, 2027, above the mean of step ratios because the rung is widest at the upper steps, where rates are highest (Appendix D)). That this equals the accord's 3.28 percent correctif does not establish the class's prior rangement: the accord applied the correctif as one percentage to the whole scale (4.1), whereas the rung between the two lines is 1.5 percent at the first step and 5.0 at the eighteenth, and the same step-mean test fails for the audiologists the accord also raised (paragraph 10 raised class 13, titles 1204, 1254 and 1255, to rangement 23 with a correctif of 4.99 percent, while on the 2019 structure (Nomenclature, catégorie 4, version of July 16, 2024) rangement 23 stands 3.22 percent above rangement 22 on the unweighted mean of the eighteen step ratios in the April 2, 2019, column (3.22 to 3.24 across the nine columns) and 5.00 percent at the eighteenth step (5.00 to 5.04). The audiologists' correctif is less than 0.06 of a point below the top-step rung in every column and the dietitian's less than 0.02 below the step mean, while the correctifs of classes 78 and 273, 4.67 and 4.47 percent on twelve-step scales, match neither (step means 3.37 to 3.40 percent, top-step rungs 5.05 to 5.11), so neither summary of the 2019 rung matches the correctifs of all four classes). The class's prior rangement is inferred from the accord's hausse de rangement to 22, not read from a document (9). The rangement 21 line, 93.83 percent of the physiotherapist, is the counterfactual the 2019 instrument prints for a class one rung lower.



Quebec: the accord's 2 percent adds 1.94 points; its rank increase shows as the gap to rangement 21. Hourly rates, dietitian scale (title 1219) as percent of physiotherapist scale (title 1233), unweighted mean of the eighteen step ratios, nine rate columns from April 2, 2019 to April 1, 2027. The dietitian line steps from 96.9 to 98.8 percent at April 1, 2021; the plain rangement 22 scale (without paragraph 17) stays flat at 96.9; the rangement 21 scale, the line for a class one rung lower on the 2019 structure, stays flat at 93.8. Source: Nomenclature des titres d'emploi, catégorie 4, version of July 16, 2024, titles 1219, 1233, 1202 and 1557.

The alternative text and caption drafted for Figure 1 are in the data record (`analysis/P15/figures/ALT_TEXT.md`, added in version 1.1).

Figure 1. Quebec: the dietitian scale as printed, as a percentage of the physiotherapist scale, beside the two printed lines it is read against: the plain rangement 22 scale, which the dietitian's would have been without the 2 percent of paragraph 17, and the rangement 21 scale, the line for a class one rung lower on the 2019 structure; unweighted mean of the eighteen step ratios of hourly rates, by rate column. Source: Nomenclature des titres d'emploi, catégorie 4, version of July 16, 2024, titles 1219, 1233, 1202 and 1557; hollow markers are the accord's restated 2019 and 2020 columns.

Table 2. Quebec: the dietitian scale (D, title 1219) against the physiotherapist scale (P, 1233) and the two printed counterfactuals, the plain rangement 22 scale (plain 22, title 1202) and the rangement 21 scale (r. 21, title 1557), as the unweighted mean of the eighteen step ratios; the first two ratio columns are multipliers, the others percentages.

Rate column	D / Plain 22	Plain 22 / r. 21	D / P	Plain 22 / P	r. 21 / P
April 2, 2019	1.0000	1.0328	96.89	96.89	93.83
April 1, 2020	1.0000	1.0328	96.89	96.89	93.83
April 1, 2021	1.0200	1.0329	98.82	96.89	93.82
April 1, 2022	1.0200	1.0329	98.82	96.89	93.82
April 1, 2023	1.0200	1.0329	98.82	96.88	93.82
April 1, 2024	1.0200	1.0329	98.82	96.88	93.81
April 1, 2025	1.0200	1.0329	98.82	96.88	93.81
April 1, 2026	1.0200	1.0329	98.81	96.87	93.81
April 1, 2027	1.0200	1.0329	98.81	96.88	93.81

Source: Nomenclature, catégorie 4, July 16, 2024; the 2019 and 2020 columns are the accord's restated rates, and differences quoted in the text are computed from unrounded means. The printed rates are exact public figures, so the ratios carry no sampling error. Title 1557 labels the r. 21 column; titles 1560 and 1701, the only other titles the edition prints at rangement 21, carry identical rates at every step in all nine columns, so the column is the scale of the rangement, not of the title. A Tribunal administratif du travail decision of June 12, 2026, known here from union and press reports and not retrieved, is quoted as ordering the Conseil du trésor "de verser les ajustements salariaux à toutes les personnes salariées" [to pay the salary adjustments to all employees] of the orientation and mobility class from December 31, 2010, with interest (Lévesque, 2026; SCFP, 2026b); the edition of July 16, 2024, read here predates it.

The means summarise scales whose gap widens along the ladder. In the 2019 structure a rangement is worth 1.5 percent at the first step and 5.0 at the eighteenth in the April 1, 2021, column (1.5 to 1.6 and 5.0 across the nine columns), a shape the 2019 exercise produced, not the accord, so one rung of that structure is 1.5 points of relativity at entry and 4.5 at the top (Appendix A; Figure 3). After the accord the dietitian's printed rate stands above the physiotherapist's at the first three steps and below from the fourth, from 100.5 or 100.6 at step 1 down to 97.1 at step 18 in every column from 2021 (98.5 to 95.2 before); at April 1, 2025, the printed rates are 30.88 against 30.71 dollars an hour at the first step and 54.71 against 56.34 at the eighteenth. The majoration, the 2 percent of paragraph 17, is 1.9 to 2.0 points at every step.

4.4 What the Quebec instrument shows

The accord moved the dietitian's relativity to the physiotherapist by 1.94 points through the majoration, visible as a step. Its rangement placement is visible only by comparison of lines, on a common structure anchored on the male curve in which the two professions sit one rangement apart: the plain rangement 22 line stands 3.06 points above the rangement 21 line, from 93.83 to 96.89 on the unweighted means of the eighteen step ratios. The physiotherapist, carved out of the accord and whose complaints were found unfounded, did not move under this instrument, and its placement at rangement 23 dates from the 2019 structure, so the placement's effect is read as the distance between lines on that grid, not as a movement observed in 2010, and the class's prior rangement is inferred (4.3; 9). The two classes' training scores were equal at the 2010 valuation, and the union reports that the employer excluded the master's requirement, adopted in 2011, from that exercise and would weigh it in the 2015 one (APTS, 2023), so the gap printed from 2019 may already carry it.

5. Ontario: the instrument prints both schedules, and the plan prints the comparators

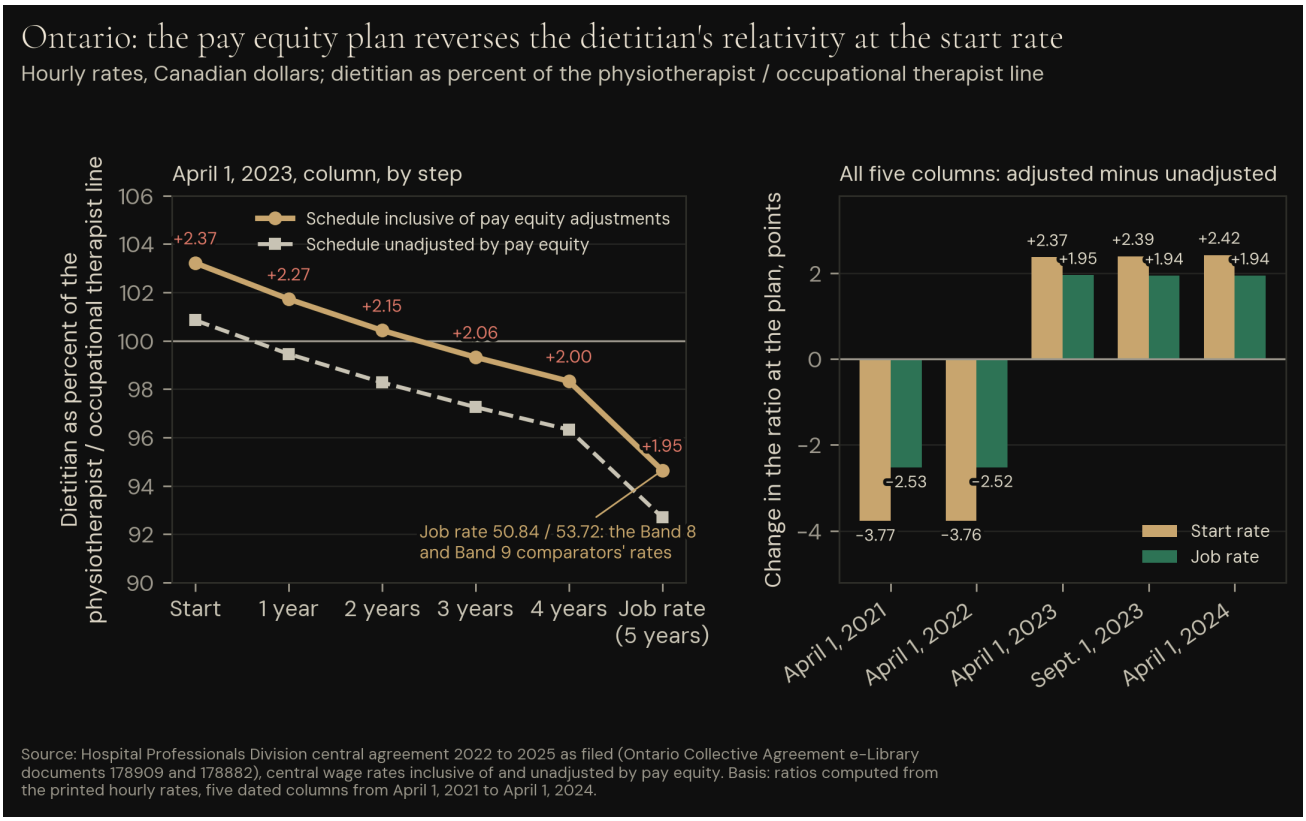
5.1 The event

Ontario's central hospital plan covers over two hundred job classes in OPSEU's Hospital Professionals Division, across the hospitals that bargain centrally with the Ontario Hospital Association. A joint team scored the classes on a gender-neutral comparison system, grouped them into bands and gave each a male comparator; the parties disagreed about four bands and settled by mediation in November 2022, avoiding the Pay Equity Hearings Tribunal (OPSEU, 2023a, 2023b). The plan itself, posted in hospitals and not filed, was not obtained; its bands and comparators are read from the union's tables, verified against the filed schedules below. Retroactive adjustments cover April 1, 2007 to March 31, 2023; go-forward adjustments took effect on April 1, 2023 (OPSEU, 2023b).

The union's tables place the dietitian in Band 8, the physiotherapist in Band 9, the physiotherapist and occupational therapist senior classes in Band 10, and the one dietitian senior class in the tables, a local class at Bluewater, in Band 9; the filed central schedule prints no dietitian senior line. Band 9's comparator is the Biomedical Technologist Charge, at a job rate of 50.05 dollars an hour for the retroactive period and 50.55 from April 1, 2023. Three of the four disputed bands were settled by formula: from April 1, 2023, the comparator rates for Bands 5, 6 and 10 are set 6 percent above the band below. Band 8's comparator changed from the Maintenance Supervisor, at 39.37 for the retroactive period, to the Biomedical Technologist Senior, at 47.83 from April 1, 2023 (OPSEU, 2023b, its Table 3); the retroactive comparators had inverted two pairs of bands, and the go-forward comparators restore a monotone ladder at a cost the union estimated at over 7 million dollars a year. After the general increases of the Kaplan award, the wage-reopener arbitration for the same period, the comparator rates became 50.84 for Band 8 and 53.72 for Band 9 at April 1, 2023 (OPSEU, 2023c), and the same page restates the retroactive comparators by year, at 39.66 and 40.85 for Band 8 and 49.55 and 51.90 for Band 9. The same page prints each comparator's job evaluation points: Band 7, 543; Band 8, 608 for the retroactive comparator and 560 for the go-forward one; Band 9, 631; and Band 10, 676 for the retroactive comparator, its go-forward rate being set by formula. The go-forward Band 8 comparator therefore carries fewer points and a higher rate than the retroactive one.

5.2 The filed instrument

The central agreement for April 1, 2022 to March 31, 2025, as filed, prints two sets of central wage rates for the same classes at five dated columns from April 1, 2021 to April 1, 2024, one "inclusive of pay equity adjustments arising out of the central pay equity plan" and one "unadjusted by pay equity" (Participating Hospitals & OPSEU, 2023, pp. 84–91). Figure 2 reads the April 1, 2023, column at every step for the dietitian and for the physiotherapist and occupational therapist, who share one line on both schedules (the PT/OT line), and in its second panel the change in all five columns; Table 3 prints those columns at the start rate and the job rate, and Table 4 every step of both schedules in each of the five columns.



Ontario: the pay equity plan reverses the dietitian's relativity at the start rate. Hourly rates, Canadian dollars; dietitian as percent of the physiotherapist/occupational therapist line, filed hospital schedule. Left panel, April 1, 2023, column: the pay-equity-adjusted schedule runs from 103.2 percent at the start rate to 94.6 percent at the job rate; the unadjusted schedule runs from 100.9 to 92.7 percent. Right panel, five dated columns from April 1, 2021 to April 1, 2024: the adjustment subtracted 3.8 points from the start-rate ratio in 2021 and 2022, then added 2.4 points from 2023. Source: Hospital Professionals Division central agreement 2022 to 2025 as filed, Ontario Collective Agreement e-Library documents 178909 and 178882.

The alternative text and caption drafted for Figure 2 are in the data record (`analysis/P15/figures/ALT_TEXT.md`, added in version 1.1).

Figure 2. Ontario: the dietitian's scheduled hourly rate (Canadian dollars) as a percentage of the physiotherapist and occupational therapist line, on the schedule inclusive of pay equity adjustments and on the schedule unadjusted by pay equity; left panel, the April 1, 2023, column at each step, and right panel, the change at the start rate and the job rate in each of the five dated columns from April 1, 2021 to April 1, 2024. Source: Hospital Professionals Division central agreement 2022 to 2025 as filed (e-Library 178909, pp. 86, 89 and 90; the second filed copy, 178882, is cited and was not archived or re-read); ratios computed from the printed hourly rates.

Table 3. Ontario: the plan's effect on the relativity in each dated column of the same agreement, start rate and job rate, percent and points.

Column	Start, unadjusted	Start, adjusted	Change	Job rate, unadjusted	Job rate, adjusted	Change
April 1, 2021	100.86	97.09	−3.77	92.70	90.17	−2.53
April 1, 2022	100.88	97.12	−3.76	92.69	90.17	−2.52
April 1, 2023	100.85	103.22	+2.37	92.69	94.64	+1.95
September 1, 2023	100.85	103.24	+2.39	92.70	94.64	+1.94
April 1, 2024	100.85	103.27	+2.42	92.70	94.64	+1.94

Source: central agreement as filed, pp. 86, 89 and 90; the schedules print from April 1, 2021 and the plan's retroactivity runs from April 1, 2007. Changes are computed from unrounded ratios.

Table 4. Ontario: the dietitian's rate as a percentage of the PT/OT line at every step, on both schedules, in each of the five dated columns, with each band's comparator rate and points.

Panel A. Schedule unadjusted by pay equity: dietitian as percent of the PT/OT line

Step	April 1, 2021	April 1, 2022	April 1, 2023	September 1, 2023	April 1, 2024
Start	100.86	100.88	100.85	100.85	100.85
1 year	99.46	99.46	99.45	99.45	99.47
2 years	98.28	98.29	98.28	98.28	98.28

Step	April 1, 2021	April 1, 2022	April 1, 2023	September 1, 2023	April 1, 2024
3 years	97.24	97.23	97.25	97.25	97.25
4 years	96.33	96.32	96.32	96.32	96.33
5 years (job rate)	92.70	92.69	92.69	92.70	92.70

Panel B. Schedule inclusive of pay equity adjustments: dietitian as percent of the PT/OT line

Step	April 1, 2021	April 1, 2022	April 1, 2023	September 1, 2023	April 1, 2024
Start	97.09	97.12	103.22	103.24	103.27
1 year	95.98	95.99	101.72	101.75	101.77
2 years	95.04	95.06	100.43	100.50	100.48
3 years	94.21	94.21	99.32	99.36	99.36
4 years	93.48	93.49	98.33	98.37	98.36
5 years (job rate)	90.17	90.17	94.64	94.64	94.64

Panel C. Change, percentage points (Panel B minus Panel A)

Step	April 1, 2021	April 1, 2022	April 1, 2023	September 1, 2023	April 1, 2024
Start	−3.77	−3.76	+2.37	+2.39	+2.42
1 year	−3.48	−3.47	+2.27	+2.29	+2.30
2 years	−3.24	−3.23	+2.15	+2.22	+2.20
3 years	−3.03	−3.02	+2.06	+2.11	+2.11
4 years	−2.84	−2.83	+2.00	+2.04	+2.03
5 years (job rate)	−2.53	−2.52	+1.95	+1.94	+1.94

Panel D. Band comparators: job rate, Canadian dollars an hour, and job evaluation points

Band	Comparator	Points	April 1, 2021	April 1, 2022	April 1, 2023	September 1, 2023	April 1, 2024
7	Biomedical Technologist	543	44.22	46.32	47.94	48.78	50.24
8 (dietitian), retroactive	Maintenance Supervisor	608	39.66	40.85			
8 (dietitian), from April 1, 2023	Biomedical Technologist Senior	560			50.84	51.73	53.28
9 (physiotherapist, occupational therapist)	Biomedical Technologist Charge	631	49.55	51.90	53.72	54.66	56.30
10 (physiotherapist and occupational therapist senior classes), retroactive	Director Pastoral Care	676	48.42	49.87			
10 (physiotherapist and occupational therapist senior classes), from April 1, 2023	Band 9 comparator plus 6 percent	not printed			56.94	57.94	59.68

Ratios: the dietitian's printed hourly rate divided by the PT/OT line's at the same step and column, times 100. Changes are computed from unrounded ratios. Panel D: comparator job rates as printed on the union's wage-rates page of October 7, 2023, after the Kaplan award's general increases; a blank cell marks a comparator not in force in that column; from April 1, 2023, the Band 10 rate is set at the Band 9 comparator's plus 6 percent, and the page prints a dash for its points.

Source: central agreement as filed, pp. 86, 89 and 90; comparator rates and points from OPSEU (2023c). Scheduled rates are exact public figures.

The plan's arithmetic is visible in the columns. The Act requires the same dollar adjustment for every position in a class and forbids reducing any rate to achieve pay equity (ss. 9(1), 9(3)), so the adjustment is a flat hourly amount equal to the gap between the class's unadjusted job rate and its comparator's, and each adjusted job rate is the greater of the two. At April 1, 2023, the amounts are 2.40 dollars for the dietitian and 1.46 (1.47 at two steps, by rounding) for the PT/OT line, 48.44 to 50.84 and 52.26 to 53.72, an uplift of 6.31 percent at the start rate falling to 4.95 at the job rate for the dietitian and of 3.87 falling to 2.79 for the PT/OT line, so the dietitian's relative position improves by 2.37 points at the start rate and 1.95 at the job rate (Figure 2). The central agreement sets the full-time standard: "The normal or standard work week shall be an average of thirty-seven and one-half (37 ½) hours" (Participating Hospitals & OPSEU, 2023, art. 16.01(a), p. 46). At that standard the April 1, 2023, adjustments come to 4,680 dollars

a year for the dietitian and 2,847 dollars for the PT/OT line (2,866.50 dollars at the two steps where the hourly amount is 1.47), each the hourly amount times 37.5 hours times 52 weeks: full-time schedule amounts before tax, not take-home pay. The clause excepts hospitals whose agreements already provide a shorter standard week, which reflect "a pro-rata lesser amount" in their salary rates, so these annual figures do not apply there as computed. The adjusted job rates are the comparators' rates exactly: the PT/OT line's equals the Band 9 comparator in every column (49.55 in 2021, 51.90 in 2022, 53.72 in 2023, 54.66 from September 2023, 56.30 in 2024) and the dietitian's equals the Band 8 comparator from April 1, 2023 (50.84, 51.73, 53.28). In the retroactive columns only one comparator bound: the dietitian's unadjusted job rate, 44.68 in 2021 and 46.80 in 2022, exceeded the retroactive Band 8 comparator's 39.66 and 40.85, so the two dietitian schedules coincide there, while the PT/OT line's 48.20 and 50.49 sat below the Band 9 comparator's 49.55 and 51.90; the union's tables list the physiotherapist among the classes owed back pay and the dietitian among those owed a go-forward adjustment only (OPSEU, 2023b, its Tables 1 and 2). The plan therefore moved the relativity both ways inside one instrument: down by 3.8 points at the start rate and 2.5 at the job rate in the 2021 and 2022 columns, up by 2.4 and 1.9 from April 1, 2023, when mediation changed Band 8's comparator and the dietitian's gap became the larger.

5.3 What the Ontario instrument shows

The movement is an identity read from one document. At the job rate from April 1, 2023, the relativity between the two female classes after the plan is 50.84 to 53.72, the relativity between the Biomedical Technologist Senior and the Biomedical Technologist Charge: each profession's job rate became its band comparator's; the Band 9 comparator carried over, and the Band 8 comparator was replaced in mediation by a higher-rated male class with fewer points, a choice the Act deems approved on execution (s. 14(5)); so the ratio between the two professions became the ratio between two grades of one male occupation, which nothing in the union's posting of the plan or the filed agreement records as a bargained relativity between dietetics and physiotherapy. Only the retroactive comparators can be read against the Act's rule that the comparator is the male class of comparable value with the lowest job rate (s. 6(3)(a)). What the parties did bargain as relativities are the three formula bands, whose comparator rates are set 6 percent above the band below, negotiated as such and deemed approved on execution (Pay Equity Act, s. 14(5)); the union's posting says where the rest belongs: "how the wage grid is structured with differentials is addressed through collective bargaining" (OPSEU, 2023b). Two features are not products of the plan: the dietitian's line separates on the adjusted schedule from the bachelor-level social worker's and the kinesiologist's only because neither of those is owed an adjustment; and the start-rate inversion in Figure 2 reflects the classes' different climbs from start to job rate, 27 percent against 39, a bargained structure that spreads the ratio across more than eight points where the plan moved it by about two.

6. Three consolidations: a null event, a recommendation on credentials, and a settlement

6.1 The United Kingdom: Agenda for Change inherited the parity

The Whitley scales that Agenda for Change replaced show that the 2004 grid did not create the parity at the entry grade. The Scottish Executive Health Department's circulars, printing the national Whitley scales for the professions allied to medicine from April 1, 2002, 2003 and 2004, put both professions on one spine: from the entrants through Chief III and Superintendent III the scales coincide grade for grade, in 2004 Senior I in both professions on the same six points from 23,265 to 27,770 pounds, Chief III and Superintendent III on the same five from 26,640 to 29,415, and Area Senior Chief and Area II on the same four from 35,185 to 38,935; nine matched rows, counting discretionary points and the entrant scales, carry identical points in each of the three years (Scottish Executive Health Department, 2002, 2003, 2004). Between those the ladders differ: dietetics carries Area Chief I and II where physiotherapy carries Superintendent I and II, on different points of the same spine, and physiotherapy's Area I tops the dietitian's highest grade by one spine point. At the entry grade the spine paid both professions the same; the circulars do not state the basis. Agenda for Change placed both entry posts in Band 5 of a grid whose bands carry one rate for every occupation, so the ratio at matched band is 100 by construction (NHS Staff Council, 2026). Read at the entry grade before and after, the 2004 event moved the ratio from 100 to 100; the grid maintains a parity it did not create.

The national job profiles, scored in 2004 and 2005, print what the grid rests on: the entry-grade dietitian profile scores the scheme's sixteen factors at 326 to 347 points and the entry-grade physiotherapist profile at 343 to 387, both within Band 5's span of 326 to 395 (NHS Employers, 2026a, 2026b; NHS Staff Council, 2024). The ranges overlap by four points and the physiotherapist's floor is 17 points above the dietitian's, the physiotherapist scoring higher on physical skills (42 points against 15), physical effort and working conditions; the scheme pays posts within one band alike, but it does not score the two posts alike.

6.2 Ireland: a common scale by recommendation, with equal-value law in the background

The Health Service Executive's consolidated salary scales effective June 1, 2026, print the staff grade, fourteen points from 45,514 to 65,068 euros, under seven title codes (3352, 3389, 3298, 3409, 314X, 3015 and 336Y, the dietitian's being 3389 and the physiotherapist's 314X), the senior grade, nine points from 65,197 to 76,767, under ten, and four further grades at one scale each for both professions (Health Service Executive, 2026). The instrument contains no equity machinery and never mentions pay equity or gender in its seventy-one pages. The common scale was recommended by the Expert Group on Various Health Professions, a three-member body established on the Labour Court's recommendation in LCR 15515 after the union IMPACT's 1997 claim for ten professions; its April 2000 report recommended "common scales" with effect from April 1, 2000, for chiropody, dietetics, occupational therapy, orthoptics, physiotherapy and speech and language therapy, on "the significant similarity in terms of entry requirements, the levels of academic and practical training and the relative development and standing of the professions within the health service" (Expert Group on Various Health Professions, 2000, paras. 23–24). Ireland is therefore a consolidation with a stated reason, credential similarity and professional standing, reached by an industrial relations process in a jurisdiction with equal-value law since 1974: the law exists, the instrument does not use it, and the parity, at every point of six grades, has a cause its own history states.

6.3 New Zealand: parity by settlement, with no like-for-like pre-period

New Zealand's allied, public health, scientific and technical claim consolidates pay equity claims raised in 2018 and 2020 and was settled under the Equal Pay Act 1972 as amended in 2020, by agreement among Health New Zealand (Te Whatu Ora), the Public Service Association and the Association of Professional and Executive Employees (APEX), completed on November 3, 2023, with a new scale effective June 1, 2023 (Health New Zealand, 2023a). The settlement's translation schedule maps every degreed allied role onto one scale, seven core steps from 70,842 to 100,466 New Zealand dollars, an additional progression step at 103,000, two recognition steps at 106,000 and 109,000 and designated bands A to F from 109,000 to 138,000, and the dietitian and physiotherapist columns translate onto the same steps (Health New Zealand, 2023b). After the settlement the ratio is 100 at every step by architecture, so it says nothing about the two professions' relative worth.

Before it, the professions were in two separate APEX collective agreements with different effective dates: the dietitians, under clause 5.2.1 of theirs from June 4, 2022, on a seventeen-step scale from 59,035 to 118,982 dollars, identical step for step to those in the separate APEX agreements for clinical physiology, occupational therapy and social work, and the physiotherapists, under clause 5.1 of theirs from May 2, 2022, on a scale from 55,535 to 113,282, 3,500 dollars lower at each of the first thirteen steps and 5,700 lower at the last four (Health New Zealand, 2023b). Read at face value that is a dietitian lead of 3.5 to 6.3 percent. The two scales carry effective dates one month apart, dietetics having reached a common allied rate that physiotherapy had not, so the design's rule, one instrument at one effective date, admits no pre-period; whether the 3,500-dollar gap would have closed in physiotherapy's next round is not known, and New Zealand contributes to E2, not E1 (Appendix C).

7. Two reference systems without equal-value law

Alberta and British Columbia have no pay equity statute and no equal-value provision, only the similar-work provisions of their human rights statutes; their instruments, read at one date each, show where the relativity sits when no statute reaches it.

Alberta's agreement between the Health Sciences Association of Alberta and Alberta Health Services for April 1, 2024 to March 31, 2028, read in its ratified copy, groups Dietitian II and Physiotherapist II in Pay Grade 6 with Occupational Therapist II and five other classifications, on one scale from 44.93 to 59.68 dollars an hour at the April 1, 2026, rates (the column in force at release; across the eight rows the appendix prints from April 1, 2023 to April 1, 2027, the April 1, 2027, rows being future rates and three rows adding the 2 percent long service pay adjustment for employees with twenty or more years of service, the entry ratio stays between 101.46 and 101.49 percent, stable, though not invariant); at entry the Dietitian I, in Pay Grade 5 at 43.14, sits above the Physiotherapist I, in Pay Grade 5a at 42.51, a ratio of 101.48 percent (Health Sciences Association of Alberta & Alberta Health Services, 2024). The physiotherapy ladder extends one grade higher, to a Physiotherapist III in Pay Grade 8. The 317-page agreement never mentions pay equity, equal pay or job evaluation: its 309 pages with a text layer do not, and the other eight print travel distances and times as images. Alberta is parity by co-grouping, without law.

British Columbia's Health Science Professionals wage schedules effective the first pay period after April 1, 2026, the columns in force at release, put the dietitian between 95.74 and 96.09 percent of the physiotherapist across the 133 hourly-rate (nineteen printed salary-structure lines by seven steps, each printed line counted once, among them the shared line for P2BE, P2BI, P2BQ and P2BR, which from April 2026 also carries P2BS, printed on its own line in the 2025 columns) cells of the two grids, below parity everywhere (Health Employers Association of British Columbia & Health Science Professionals Bargaining Association, 2026). The maintenance agreement that accompanies the classification manual states the principle: in determining the salary structure of each profession, "consideration is given to the educational requirements to practice as governed by regulatory colleges" (Health Employers Association of British Columbia & Health Science Professionals Bargaining Association, 2023, Maintenance Agreement s. 5.2).

The two disagree: without equal-value law the relativity can be parity, when an agreement groups the professions in one grade, or about four points below it, when it grades with reference to credentials. The level is set by the instrument's architecture in both, as in Ireland with law and without machinery.

Levels do not sort by regime. On its adjusted schedule at April 1, 2024, an equity-law instrument (Ontario) runs from 103.27 at the start rate to 94.64 at the job rate, straddling the no-law British Columbia schedules (95.74 to 96.09), and parity appears with law (the United Kingdom and New Zealand), with law but without machinery in the instrument (Ireland) and without law (Alberta) (Table 5).

Table 5. Levels by regime type (E2, descriptive): the dietitian's scheduled rate as a percentage of the physiotherapist's at matched grade and step, minimum and maximum across the matched cells of each instrument at the columns read.

System	Regime type	Instrument and effective date	Basis	Minimum	Maximum	Matched cells
Quebec	Equity law with machinery in the instrument	Nomenclature des titres d'emploi, catégorie 4, version of July 16, 2024; titles 1219 and 1233, column of April 1, 2026	one class, eighteen steps; every step	97.11 at step 18, 56.08 against 57.75 an hour	100.54 at step 1, 31.65 against 31.48 an hour	18
Ontario	Equity law with machinery in the instrument	Hospital Professionals Division central agreement 2022 to 2025, schedule adjusted by pay equity, column of April 1, 2024	one grade, six steps; start rate to job rate	94.64 at the job rate, 53.28 against 56.30 an hour	103.27 at the start rate, 41.68 against 40.36 an hour	6

System	Regime type	Instrument and effective date	Basis	Minimum	Maximum	Matched cells
United Kingdom	Equity law; the grid carries a job evaluation scheme, with no event for these professions	NHS terms and conditions (Agenda for Change), pay bands and pay points from April 1, 2026 (England)	Band 5, the entry grade; all three pay points	100.00 at the entry point, £32,073 for both	100.00 at the top point, £39,043 for both	3
Ireland	Equity law without machinery in the instrument	Health Service Executive consolidated salary scales, June 1, 2026	six grades, every point (staff 14, senior 9, clinical specialist 9, manager 7, manager in charge III 7, candidate advanced practice 7)	100.00 at staff grade point 1, €45,514 for both	100.00 at manager in charge III point 7, €100,131 for both	53
New Zealand	Equity law with machinery in a settlement	Allied, public health, scientific and technical settlement translation schedule, scale effective June 1, 2023	the one translated scale; seven core steps, the additional progression step and the two recognition steps	100.00 at step 1, NZ$70,842 for both	100.00 at recognition step 2, NZ$109,000 for both	10
Alberta, second level	No equal-value law	Health Sciences Association of Alberta and Alberta Health Services agreement 2024 to 2028, ratified copy, April 1, 2026, rates	Pay Grade 6, Dietitian II and Physiotherapist II on one scale; steps 1 to 9	100.00 at step 1, 44.93 an hour for both	100.00 at step 9, 59.68 an hour for both	9
Alberta, entry	No equal-value law	same agreement, April 1, 2026, rates	Dietitian I (Pay Grade 5) against Physiotherapist I (Pay Grade 5a); steps 1 to 9	101.36 at step 9, 57.37 against 56.60 an hour	101.75 at step 3, 46.46 against 45.66 an hour	9
British Columbia	No equal-value law	Health Science Professionals wage schedules G and J, effective the first pay period after April 1, 2026	every salary-structure line against the line of the same label, every step; hourly rates	95.74 at S1D, 1st Year, 51.87 against 54.18 an hour	96.09 at the P2B (E, I, Q, R, and S) line and S4B, 25th Year, 60.39 against 62.85 an hour	133

Note. Ontario's adjusted schedule in the agreement's other dated columns, six steps each: 90.17 to 97.09 at April 1, 2021 and 90.17 to 97.12 at April 1, 2022, the retroactive columns, and 94.64 to 103.22 at April 1, 2023 and 94.64 to 103.24 at September 1, 2023. Quebec's ratio is above 100 at steps 1 to 3 and below it from step 4 in every column from 2021; at April 1, 2019 and April 1, 2020, the accord's restated columns, the same eighteen steps run 95.24 to 98.55. Alberta's entry pair is a cross-grade comparison, and its second-level and British Columbia's figures are read at the columns in force at release.

Source: the instruments in Table 1. Scheduled rates are exact public figures, so the minima and maxima carry no sampling error.

8. Discussion: what the statute determines, and how

Read against the three explanations set out in section 1, which were named after the instruments had been read, the documents fit the second and the third and not the first. The first fails on both of its marks. No statute or decision read compares the two professions, and Quebec's Commission states that the Act does not aim to correct pay differences between predominantly female classes (2.1). Levels do not sort by regime (7, Table 5). At the two statutory revaluations the ratio moved in the instrument's units and in either direction. In Ontario it fell in the retroactive columns, when only the physiotherapist's comparator bound, and rose from April 1, 2023, from which date the job-rate ratio is that between two grades of biomedical technologist (5.3). In Quebec the accord moved the dietitian by a rung of a structure anchored on the male curve (4.4). Where the ratio's level was set on purpose, the parties or an expert body set it. Quebec's parties rebuilt their whole structure in 2019 and Ontario's set three bands by formula (8.2); Ireland's expert group recommended common scales on credential similarity (6.2); and British Columbia's agreement grades with reference to educational requirements (7).

8.1 The relativity moves in the instrument's units, and in either direction

In the methods read here, a female-to-male statute determines a female-to-female relativity as a by-product, in the instrument's own units: where both classes are raised to their comparators, the relativity between them becomes the relativity between the comparators' rates, and where one class is already above its comparator, it moves by the other's adjustment alone. In Ontario the unit is the comparator's rate, subject to a floor, so the by-product points whichever way the two comparisons point, down in the retroactive columns, when only the physiotherapist's comparator bound, and up from April 1, 2023, when mediation changed the Band 8 comparator; the number at the job rate after 2023, 50.84 to 53.72, is the relativity between the Biomedical Technologist Senior and the Biomedical Technologist Charge. In Quebec the unit is the rangement of a structure anchored on the curve of the male classes: the accord placed the dietitian at rangement 22, which on the edition read is visible only against the rangement 21 scale printed beside the dietitian's; the rung is worth 1.5 percent at the first step and 5.0 at the eighteenth in the 2019 structure, so a one-rangement move in that structure moves the relativity three times as many points at the top of the scale as at the bottom. The Act's five-yearly maintenance (s. 76.1) can re-anchor a female class to the male curve and so move its relativity to the others; the 2020 exercise, as far as the edition read shows, moved

neither class. A further exercise, covering December 21, 2020 to December 20, 2025, is under way: the union's page on it, read on September 15, 2026, says the exercise is run by a joint committee of the Conseil du trésor and seven union organisations formed in September 2025 and that the date of the first posting is not yet known, so what it does to either class cannot be read yet (Appendix F).

8.2 Équité and relativité, in the documents

The Quebec scholarship anticipated the distinction: Hallée (2014) put the passage to relativité salariale in the parties' hands, and Déom and Mercier (2001) held that the logic of equity and the logic of industrial relations conflict rather than compose. The instruments show the parties setting relativities as such, twice. Quebec's parties rebuilt the whole parapublic structure by agreement in 2019, one scale per rangement, in an exercise they called *relativités salariales*, for which no statute provides (Secrétariat du Conseil du trésor, n.d.); the accord of 2021 then moved one class within it. Ontario's parties set three bands' comparators at 6 percent above the band below inside a plan the Act deems approved on execution, and the union's posting places the grid's differentials in collective bargaining. Paragraph 17 of the accord sits between the two operations: a 2 percent increase for one class that the accord does not explain and the Nomenclature prints as 1.02 times the plain scale.

8.3 Level, credentials and change, with variation over time

With dated events in view, the instruments speak to three questions. On level, what the documents show is architecture: one scale for both professions is parity by construction, and parity appears with law, without machinery in the instrument and without law (Table 5). On credentials, credential similarity is the reason Ireland's expert group gave for a common scale, educational requirements are the principle British Columbia's maintenance agreement states, and the Whitley spine paid both entry grades the same without a stated basis. In Quebec the instrument prints a bachelor's for the dietitian and a master's for the physiotherapist beside rangements one apart, so credential and equity are confounded there; the 2010 equal training score cannot test a credential reading, because no source read gives the two classes' rangements at the 2010 valuation. The British profiles put two degree-entry posts in one band with equal training scores, consistent with such a reading. The cases do not separate credentials from the architecture that co-varies with them. On change at statutory events, what the documents show is law, and the parties' structure-wide settings (8.2) are the other source of change: a statutory revaluation moves the relativity by the difference between two comparator gaps or by a rung of a common grid, in either direction, and a statutory claim settled by consolidation removes it. *Enderby* held that distinct bargaining processes are not sufficient objective justification for a pay difference between jobs of equal value; the instruments show separate grade ladders on one spine carrying parity at entry (Whitley), producing an apparent difference that the design cannot read (New Zealand's separately dated agreements) and isolating an effect (Quebec's carve-out).

8.4 Beyond these instruments

For parties who bargain such structures, an equity exercise moves the relativity among female-predominant professions in the grid's units and in whichever direction the comparisons point: under a job-to-job method, by the difference between their comparator gaps (where one class is already above its comparator, by the other's gap alone); under Quebec's global method, by a rung of the structure. Those who choose comparators, and the tribunals that settle disputes over them, set such relativities with every choice.

What United States public pay instruments print for the two professions is recorded in Appendix H.

9. Limitations

The design is small by construction, and its strength is provenance rather than sample: five events, two of them against printed counterfactuals, and two reference systems read at one date each, support claims about those instruments and the mechanism visible in them, not a general estimate of what a pay equity statute does to relativities.

The counterfactuals are counterfactuals for the adjustment, not for the statute: Ontario's unadjusted schedule was bargained by parties who knew a pay equity adjustment would be added to it, and Quebec's rangement 21 line is a rung of a structure the maintenance regime and the 2019 relativity exercise themselves produced. Quebec's Nomenclature restates the dietitian's pre-accord columns at the new rangement, and the accord's Annexe 4 prints no pre-accord column for the class, so the class's prior rangement is inferred from the accord's hausse de rangement to 22, not read from a document that prints it; the equality of the 3.28 percent correctif with the unweighted mean of the eighteen step ratios between the plain rangement 22 and rangement 21 lines does not establish it, and the same test fails for the audiologists (4.3). Whether the class was integrated at rangement 21 in 2019 was not established from the July 16, 2024, edition, which restates the class's 2019 and 2020 columns; the edition in force from April 2, 2019, establishes it. That edition, the Nomenclature's "Version du 2 avril 2019" [version of April 2, 2019] issued by the Ministère de la Santé et des Services sociaux, was read from an Internet Archive copy, captured January 20, 2022, of the file that the page of the Comité patronal de négociation du secteur de la santé et des services sociaux [employers' negotiating committee for the health and social services sector] listed as the "Nomenclature en vigueur" [Nomenclature in force] in captures of May 5 and July 17, 2019. It prints title 1219 at "groupe salarial 118" [salary group 118] until April 1, 2019 and at rangement 21 from April 2, 2019, and its April 2, 2019, dietitian scale equals the rangement 21 scale of title 1557 at all eighteen steps, from 24.87 Canadian dollars an hour at step 1 to 43.06 at step 18 (Nomenclature des titres d'emploi, 2019). The online Nomenclature labelled in force, captured January 11 and September 22, 2020, prints the same placement, with April 2, 2019, as its latest rate column. On those rates the dietitian's pay in force from April 2, 2019, was 93.83 percent of the physiotherapist's on the unweighted mean of the eighteen step ratios, 97.0 at step 1 and 90.7 at step 18: the rangement 21 figure in Table 2's April 2, 2019, row, against the 96.89 that the 2024 edition restates for that date. The rates are printed public figures, so the ratio carries no sampling error. Before April 2, 2019, the class was in groupe salarial 118 on the earlier structure, whose columns are not compared with rangement columns. The British null is established at the entry grade; the senior grades differ. New Zealand has no like-for-like pre-period; Ireland's scales before 2000 were not retrieved, so the size of that consolidation is not measured; a public-sector pay equity policy framework in British Columbia in the late 1990s was not examined. The assimilation of the senior Whitley grades into Agenda for Change bands in 2004 was not traced. The Ontario plan document itself, posted in hospitals and not filed, was not obtained, so its bands and comparators are read from the

union's tables. The integration tables for Quebec's April 2, 2019, structure were not retrieved. The report uses no headcounts: it reads scheduled rates, not how many people are paid at each step. The reference systems are not untreated in a trial's sense: their instruments were built by classification processes of their own, and the report reads what those produced.

The report adds nothing to the statutory findings it reports: in Ontario the plan found both classes below their male comparators from 2023, in Quebec the accord raised the dietitian class to rangement 22 and the Commission upheld the physiotherapist's evaluation, and the report takes those findings as given, drawing no further inference about either profession's worth.

10. Conclusion

In the instruments read, pay equity law moved the dietitian-to-physiotherapist pay ratio only as a side effect of comparing each profession with men's jobs, in the instrument's units and in either direction. Ontario's 2023 plan lowered the ratio in its retroactive columns and raised it from April 1, 2023, when one band's comparator was replaced. Quebec's 2021 accord moved the dietitian one rangement within a structure the parties had set in 2019. Where the ratio's level was set on purpose, the parties or an expert body set it, across a whole structure or on stated grounds such as credentials, with or without equity law. No statute or decision read compares the two professions or decides which is worth more. These findings were classified against explanations named only after the instruments had been read. Whether United States public pay plans have moved the ratio was not examined (Appendix H).

How this report was checked

The status note describes the review. A validity gate of 2,737 checks was run on the final text (run on October 22, 2026; every check passed, and the earlier run of September 16, 2026, is described in Appendix D): it re-derives the figures in the text, tables, box and appendices from the archived instruments (for Ontario, Alberta and British Columbia, from records of them, and for the Whitley rows and the Band 5 profiles, in part from the author's tables of them, as Appendix D describes), matches every quotation against its archived source, and asserts that phrases withdrawn in review do not return. Because the figures are exact public scheduled rates, the gate tests transcription and arithmetic; whether each instrument has been read in the right sense is what the statements of basis in the text and the separate review lenses address. Separately, a second estimator was written without reading the gate or any of the analysis scripts, and recomputed the report's figures from the archived instruments, with two exceptions noted below: Quebec's eighteen steps in nine columns and the rangement ratios (Nomenclature, catégorie 4, version of July 16, 2024), Ontario's six steps in five columns with the flat adjustments and their annual translation (central agreement April 1, 2022 to March 31, 2025, read in the Ontario Hospital Association's posted copy, with the filed copy read for its hours-of-work clause only), the Whitley matched rows (recounted from the author's table of matched grades from the circulars of 2002, 2003 and 2004, not from the circulars themselves, so only partly independent of the analysis), the seven title codes on the Irish staff grade (Health Service Executive scales of June 1, 2026), the New Zealand scales and their 3,500 and 5,700 dollar gaps (settlement translation schedule, rates from June 1, 2023), and the Alberta and British Columbia columns in force at release. Forty-five headline values were compared against the results the report is built on, and every one agreed at the precision each is printed to. Like the gate, this tests transcription and arithmetic, not whether an instrument has been read in the right sense. The estimator's code, its values and the comparison are in the data record (`analysis/P20/P20_independent/`, added in version 1.1). The recomputation was AI-assisted and has not been reviewed by a second person; it was run on September 16, 2026. The dated verification sheet, VERIFICATION_SHEET_R5_2026-09-16.md of September 16, 2026, is deposited with the data.

Data availability

Every instrument, statute and decision read is public and is identified in the References by issuer and effective date; the retrieval date, where one was recorded, is in the source manifests. The instruments are third-party documents and are not redistributed, with two exceptions. The data record carries, with their sources, a text of the New Zealand settlement agreement made by optical character recognition from the copy that Health New Zealand publishes, and one page image of the Quebec accord (Annexe 4, page 11). Version 1.0 of the data record also carried the English and French text of Quebec's Pay Equity Act. Version 1.1 omits it, and keeps the address, retrieval time and SHA-256 of the captures it came from and the script that fetched them. The data record (version 1.1 DOI 10.5281/zenodo.23570343; version 1.0 DOI 10.5281/zenodo.23044642; concept DOI 10.5281/zenodo.23044641) holds the rates extracted from each instrument (for Ireland, each grade's first and last point and its number of points, and every point of the staff and senior grades in the second estimator's values), the analysis tables, the validity gate and the figure scripts. It also holds the figures' alternative text and captions, the second estimator's code and values, the dated verification sheet, and a source manifest in two parts giving each archived input's issuer and SHA-256 checksum and, where recorded, its vintage and retrieval date. Version 1.1 adds this version's text and the gate as run on it, with the records of those runs. The deposited scripts expect the archived instruments, and the author's own tables that the manifests list by checksum, in the author's own folder layout, so they regenerate the numbers only where a reader supplies those files. The README of version 1.1 of the data record says what runs from the record alone. This report is deposited at 10.5281/zenodo.23570342 (version 1.1; version 1.0 is 10.5281/zenodo.23044624).

Corrections

Corrections to this report are dated, labelled and appended: each names what was wrong, where the error came from, who caught it and whether the argument survives. The argument is never silently rewritten. Version history: version 1.0, September 29, 2026; version 1.1, October 22, 2026.

Correction, version 1.1, October 22, 2026. The abstract said that pay equity statutes compare female-predominant job classes with male comparators, "never with each other". That does not hold for Ontario's proxy method. Under section 21.15(1) of the Pay Equity Act, a key female job class is compared with female job classes in a proxy establishment. The Court of Appeal for Ontario describes that comparator as a female job class deemed to be the male job class (2021 ONCA 148, paragraph 3). The Ontario e-Laws consolidation prints Part III.2, which holds the method, as repealed in 1996. The Divisional Court declared that repeal of no force and effect in 1997. The report reads the job-to-job method of Ontario's Act. It does not read the proxy method. The abstract now says that it describes the methods the report reads, and names the proxy method as one it does not read. The plain-language summary, the Introduction, sections 2.1, 2.2 and 8.1 and the French résumé said the same of the statutes. They now carry the same scope. An AI fact-check of a related manuscript, which the author directed, found the point on September 30, 2026. The author applied it to this report on October 1, 2026. An AI review agent the author directed found the other places on October 2, 2026. No finding changes, and the argument of the report is unaffected.

Correction, version 1.1, October 22, 2026. The report described its data record inexactly in twenty-five places. It said that a long description of each figure was deposited with the report, and that the SHA-256 of the archived Whitley circulars and the New Zealand workbook was in Appendix E. It said that the source manifest listed each archived input, that the data record held the rates extracted from each instrument, and that the deposited code and the gate regenerated or re-derived every number from the archived instruments. The code expects the instruments in the author's own folder layout, and the gate reads records of Ontario's, Alberta's and British Columbia's schedules and the author's own tables of the Whitley rows and the Band 5 profiles. The report also said that the instruments were not redistributed. Version 1.0 of the data record carried the text of Quebec's Pay Equity Act in English and French, a text of the New Zealand settlement agreement made by optical character recognition, and one page image of the Quebec accord. Version 1.1 of the data record omits the text of the Act and carries the other two with their sources. It adds the figures' alternative text, the second estimator's code and values, the records of the gate's first run and a source manifest for the archived inputs that the first manifest does not list. The text now says what the record holds, and the README of version 1.1 of the data record lists the statements in the carried files of version 1.0 that stay as published. A read-only AI audit the author directed found these places on October 2, 2026. No finding changes, and the argument of the report is unaffected.

Updated October 22, 2026: the declaration of interests was updated. The status note, the statement on the use of artificial intelligence and a sentence in How this report was checked were reworded. The References and Data availability were updated. The abstract was shortened by wording only. The source line of Figure 2, a sentence on the Alberta agreement and the account of the negative tests in Appendix D were made exact. The status note, the section on how the report was checked and Appendix D now print 2,737 checks, up from 2,548. Version 1.1 of the data record also adds this version's text, the gate as run on it and the record of that run. None of this changes a finding.

Glossary

- **Agenda for Change band.** A pay band of the grid introduced across the United Kingdom's National Health Service in 2004. Posts are placed in a band by a scored job evaluation, and every occupation in a band is paid on the same pay points.
- **Band (Ontario).** A group of job classes in Ontario's central hospital pay equity plan with comparable job evaluation scores, each band given one male comparator.
- **Consolidation event.** Parity arriving by architecture, when separate scales for the two professions become one (3.2). A **null event** is a consolidation that changed nothing for the professions read, because their scales already coincided.
- **Correctif.** The Quebec accord's word for a pay equity adjustment to a job class; in the 2021 accord, a percentage applied to the whole scale (4.1).
- **E1 and E2.** E1 is the change in the ratio at a named adjustment, read against the schedule the same instrument prints without it; E2 is a descriptive comparison of the ratio's levels across regime types (3.2).
- **Échelon.** A step of a Quebec salary scale; the category 4 scales read here have eighteen.
- **Female job class; predominantly female job class.** In Ontario, a job class in which 60 percent or more of the members are female (Pay Equity Act, s. 1(1)); in Quebec, a *catégorie d'emplois à prédominance féminine*.
- **Global method.** Quebec's public-sector method of comparing each predominantly female class to one pay curve built from all the male classes, rather than to a single male class (2.1).
- **Groupe salarial.** Salary group: the placement unit Quebec's parapublic structure used before April 2, 2019.
- **Job rate.** In Ontario, the highest rate of compensation for a job class (Pay Equity Act, s. 1(1)); in the schedules read here, the five-year step.
- **Maintenance evaluation.** Quebec's five-yearly re-evaluation of whether pay equity is maintained (*maintien de l'équité salariale*, s. 76.1); the Act's official English version calls it a pay equity audit.
- **Majoration.** A salary increase; here the 2 percent of paragraph 17 of the Quebec accord, which paragraph 18 makes recoverable against a later correctif.
- **Male comparator.** The male job class whose job rate a female job class must at least equal once pay equity is achieved.
- **Nomenclature.** The Quebec health and social services network's official list of job titles, with each title's requirements, rangement and dated salary scale.
- **Pay instrument.** A document that sets scheduled pay: a collective agreement's wage schedule, a pay circular, a salary-scale publication, a settlement's translation schedule or a nomenclature.
- **PT/OT line.** The single line the Ontario schedules print for physiotherapists and occupational therapists.
- **Rangement.** A rank of Quebec's parapublic salary structure. Since April 2, 2019, each rangement carries one salary scale; the 2010 evaluation grid had 28 rangements at 29-point intervals.

- **Relativity (pay relativity).** The pay of one job class relative to another's; *relativité salariale* in Quebec usage, which the Office québécois de la langue française distinguishes from *équité salariale*, the correction of sex-based undervaluation (1).
- **Restated retroactive column.** A rate column printed for a date before the instrument was agreed, showing rates as a settlement restated them, not the rates in force on that date.
- **Revaluation event.** An instrument's repricing of one class relative to another under a statutory process (3.2).
- **Scale and step.** A salary scale is the list of rates a class moves through, one rate per step; the **start rate** is the first step.
- **Scheduled rate.** The rate an instrument prints, before premiums, overtime or allowances; not earnings.
- **Whitley spine.** The pay points of the Whitley Council scales on which the United Kingdom's National Health Service paid the professions allied to medicine before Agenda for Change.

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Appendix A. Quebec: the eighteen steps in nine columns

Each table gives one quantity at each of the eighteen steps of the scale in each of the nine rate columns that titles 1219 (dietitian), 1233 (physiotherapist), 1202 (a plain rangement 22 title) and 1557 (a plain rangement 21 title) all print, April 2, 2019 to April 1, 2027. The dietitian's scale also prints a March 20, 2021, column, which the other three titles do not print; these tables leave it out. The last three columns of Table 2 (4.3) are the unweighted means, over the eighteen steps, of the unrounded values behind Tables A1 to A3, and its first two columns are the means of the matching step multipliers from the same parse. The rates are exact public figures printed in the instrument, so these ratios are computed, not estimated, and carry no sampling interval. Columns marked (restated) are the April 2, 2019 and April 1, 2020, columns, the accord's restated rates (Table 2; Appendix D).

The rung between the two lines widens along the ladder in every column: from 1.53 to 1.58 percent at step 1 and 4.98 to 5.02 percent at step 18 (Table A4), or 1.48 to 1.53 points of relativity at step 1 and 4.52 to 4.55 at step 18 (Table A5). That shape is a property of the structure in force since April 2, 2019, on which both lines are printed, not of the accord of July 29, 2021, which applied its correctif as one percentage to the whole of the class's scale (4.1).

Table A1. Quebec: the dietitian's rate as a percentage of the physiotherapist's, at each of the eighteen steps in the nine common rate columns.

Units: dietitian (title 1219) hourly rate as a percentage of the physiotherapist's (title 1233) hourly rate at the same step and column.

Step	April 2, 2019 (restated)	April 1, 2020 (restated)	April 1, 2021	April 1, 2022	April 1, 2023	April 1, 2024	April 1, 2025	April 1, 2026	April 1, 2027
1	98.52	98.55	100.56	100.58	100.55	100.53	100.55	100.54	100.55
2	98.31	98.31	100.25	100.28	100.26	100.26	100.25	100.21	100.21
3	98.19	98.19	100.14	100.17	100.16	100.12	100.12	100.12	100.11
4	97.94	97.95	99.87	99.87	99.88	99.88	99.85	99.86	99.86
5	97.75	97.73	99.68	99.66	99.65	99.66	99.64	99.64	99.63
6	97.61	97.59	99.56	99.58	99.57	99.58	99.57	99.55	99.57
7	97.35	97.37	99.31	99.30	99.29	99.28	99.27	99.29	99.29
8	97.18	97.18	99.11	99.10	99.13	99.13	99.12	99.12	99.10

Step	April 2, 2019 (restated)	April 1, 2020 (restated)	April 1, 2021	April 1, 2022	April 1, 2023	April 1, 2024	April 1, 2025	April 1, 2026	April 1, 2027
9	97.00	97.00	98.95	98.95	98.93	98.94	98.96	98.97	98.93
10	96.78	96.78	98.72	98.72	98.71	98.75	98.76	98.74	98.74
11	96.60	96.59	98.53	98.54	98.52	98.52	98.53	98.52	98.53
12	96.42	96.41	98.34	98.32	98.33	98.35	98.33	98.33	98.32
13	96.23	96.23	98.16	98.15	98.17	98.17	98.18	98.18	98.20
14	95.99	96.00	97.92	97.92	97.91	97.90	97.91	97.93	97.94
15	95.82	95.81	97.72	97.70	97.71	97.69	97.71	97.69	97.69
16	95.64	95.63	97.54	97.52	97.54	97.53	97.54	97.52	97.53
17	95.43	95.43	97.32	97.31	97.31	97.29	97.30	97.32	97.30
18	95.24	95.23	97.13	97.12	97.14	97.12	97.11	97.11	97.11

Source: Nomenclature des titres d'emploi, des libellés, des taux et des échelles de salaire du réseau de la santé et des services sociaux, catégorie 4, version of July 16, 2024, Part III (rate tables for titles 1202, 1219, 1233 and 1557, PDF pages 90, 94, 97, 118); archived copy dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: scheduled hourly rates as printed, step against the same step in the same column; not realised pay. Rows and columns rendered by script from the parse (P04_quebec_steps.py), rounded to two decimals; differences quoted in the text are computed from unrounded values.

Table A2. Quebec: the plain rangement 22 line as a percentage of the physiotherapist's rate, at each of the eighteen steps in the nine common rate columns.

Units: plain rangement 22 hourly rate (title 1202) as a percentage of the physiotherapist's (title 1233) at the same step and column.

Step	April 2, 2019 (restated)	April 1, 2020 (restated)	April 1, 2021	April 1, 2022	April 1, 2023	April 1, 2024	April 1, 2025	April 1, 2026	April 1, 2027
1	98.52	98.55	98.57	98.62	98.59	98.56	98.57	98.57	98.59
2	98.31	98.31	98.30	98.32	98.31	98.29	98.27	98.26	98.26
3	98.19	98.19	98.19	98.21	98.18	98.17	98.16	98.14	98.15
4	97.94	97.95	97.92	97.92	97.91	97.91	97.91	97.90	97.92
5	97.75	97.73	97.71	97.71	97.70	97.70	97.68	97.68	97.68
6	97.61	97.59	97.61	97.62	97.61	97.62	97.63	97.60	97.61
7	97.35	97.37	97.37	97.36	97.34	97.33	97.32	97.34	97.33
8	97.18	97.18	97.18	97.17	97.18	97.18	97.17	97.17	97.17
9	97.00	97.00	97.00	97.01	97.00	97.01	97.01	97.01	97.00
10	96.78	96.78	96.79	96.78	96.79	96.80	96.81	96.80	96.80
11	96.60	96.59	96.60	96.59	96.60	96.60	96.59	96.59	96.60
12	96.42	96.41	96.41	96.41	96.40	96.41	96.39	96.40	96.40
13	96.23	96.23	96.23	96.23	96.25	96.24	96.25	96.26	96.27
14	95.99	96.00	96.01	95.99	95.99	95.99	95.99	96.01	96.01
15	95.82	95.81	95.80	95.80	95.79	95.78	95.79	95.78	95.77
16	95.64	95.63	95.63	95.61	95.62	95.62	95.62	95.62	95.62
17	95.43	95.43	95.42	95.41	95.40	95.39	95.40	95.40	95.40
18	95.24	95.23	95.22	95.22	95.23	95.21	95.21	95.20	95.20

Source: Nomenclature des titres d'emploi, des libellés, des taux et des échelles de salaire du réseau de la santé et des services sociaux, catégorie 4, version of July 16, 2024, Part III (rate tables for titles 1202, 1219, 1233 and 1557, PDF pages 90, 94, 97, 118); archived copy dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: scheduled hourly rates as printed, step against the same step in the same column; not realised pay. Rows and columns rendered by script from the parse (P04_quebec_steps.py), rounded to two decimals; differences quoted in the text are computed from unrounded values.

Table A3. Quebec: the rangement 21 line as a percentage of the physiotherapist's rate, at each of the eighteen steps in the nine common rate columns.

Units: rangement 21 hourly rate (title 1557) as a percentage of the physiotherapist's (title 1233) at the same step and column.

Step	April 2, 2019 (restated)	April 1, 2020 (restated)	April 1, 2021	April 1, 2022	April 1, 2023	April 1, 2024	April 1, 2025	April 1, 2026	April 1, 2027
1	97.03	97.05	97.07	97.09	97.08	97.06	97.07	97.08	97.08
2	96.62	96.61	96.60	96.60	96.59	96.59	96.58	96.57	96.57
3	96.31	96.31	96.31	96.32	96.30	96.31	96.31	96.31	96.30
4	95.85	95.86	95.85	95.84	95.83	95.82	95.81	95.80	95.80
5	95.50	95.49	95.48	95.46	95.45	95.43	95.41	95.41	95.41
6	95.12	95.12	95.12	95.11	95.11	95.13	95.12	95.10	95.09
7	94.74	94.75	94.73	94.71	94.71	94.72	94.70	94.70	94.71
8	94.39	94.39	94.38	94.40	94.40	94.40	94.42	94.41	94.41
9	93.99	94.00	93.98	93.99	93.98	93.99	94.00	94.01	94.00
10	93.61	93.59	93.61	93.61	93.60	93.60	93.60	93.60	93.59
11	93.28	93.28	93.28	93.26	93.26	93.26	93.27	93.26	93.26
12	92.86	92.85	92.84	92.83	92.83	92.82	92.81	92.81	92.81
13	92.53	92.53	92.53	92.54	92.54	92.53	92.53	92.55	92.56
14	92.12	92.13	92.13	92.12	92.12	92.13	92.12	92.14	92.14
15	91.77	91.77	91.78	91.77	91.76	91.74	91.75	91.74	91.75
16	91.43	91.42	91.42	91.42	91.42	91.42	91.41	91.42	91.42
17	91.03	91.04	91.03	91.02	91.01	91.01	91.01	91.02	91.01
18	90.69	90.69	90.69	90.69	90.69	90.69	90.68	90.68	90.68

Source: Nomenclature des titres d'emploi, des libellés, des taux et des échelles de salaire du réseau de la santé et des services sociaux, catégorie 4, version of July 16, 2024, Part III (rate tables for titles 1202, 1219, 1233 and 1557, PDF pages 90, 94, 97, 118); archived copy dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: scheduled hourly rates as printed, step against the same step in the same column; not realised pay. Rows and columns rendered by script from the parse (P04_quebec_steps.py), rounded to two decimals; differences quoted in the text are computed from unrounded values.

Table A4. Quebec: the rung between rangement 22 and rangement 21, in percent, at each of the eighteen steps in the nine common rate columns.

Units: plain rangement 22 hourly rate (title 1202) divided by the rangement 21 hourly rate (title 1557), minus one, in percent.

Step	April 2, 2019 (restated)	April 1, 2020 (restated)	April 1, 2021	April 1, 2022	April 1, 2023	April 1, 2024	April 1, 2025	April 1, 2026	April 1, 2027
1	1.53	1.54	1.55	1.58	1.56	1.55	1.54	1.54	1.55
2	1.75	1.75	1.76	1.78	1.78	1.77	1.75	1.74	1.75
3	1.95	1.95	1.95	1.96	1.95	1.93	1.91	1.90	1.92
4	2.18	2.17	2.17	2.17	2.18	2.18	2.19	2.19	2.20
5	2.36	2.34	2.33	2.36	2.35	2.38	2.38	2.38	2.38
6	2.62	2.60	2.61	2.63	2.63	2.62	2.64	2.63	2.65
7	2.76	2.77	2.78	2.79	2.78	2.76	2.77	2.78	2.77
8	2.95	2.96	2.96	2.93	2.94	2.94	2.92	2.92	2.92
9	3.20	3.19	3.22	3.21	3.22	3.21	3.20	3.20	3.19
10	3.39	3.41	3.40	3.39	3.41	3.42	3.43	3.42	3.42
11	3.56	3.55	3.56	3.57	3.57	3.57	3.56	3.56	3.58
12	3.83	3.84	3.84	3.85	3.85	3.87	3.86	3.86	3.86
13	4.00	4.00	4.00	3.99	4.01	4.01	4.03	4.02	4.01
14	4.20	4.19	4.21	4.20	4.20	4.19	4.20	4.20	4.21
15	4.41	4.40	4.38	4.39	4.39	4.40	4.40	4.39	4.39
16	4.60	4.61	4.61	4.59	4.59	4.60	4.60	4.59	4.59
17	4.83	4.83	4.83	4.82	4.82	4.82	4.82	4.82	4.82
18	5.02	5.01	5.00	4.99	5.00	4.98	4.99	4.98	4.98

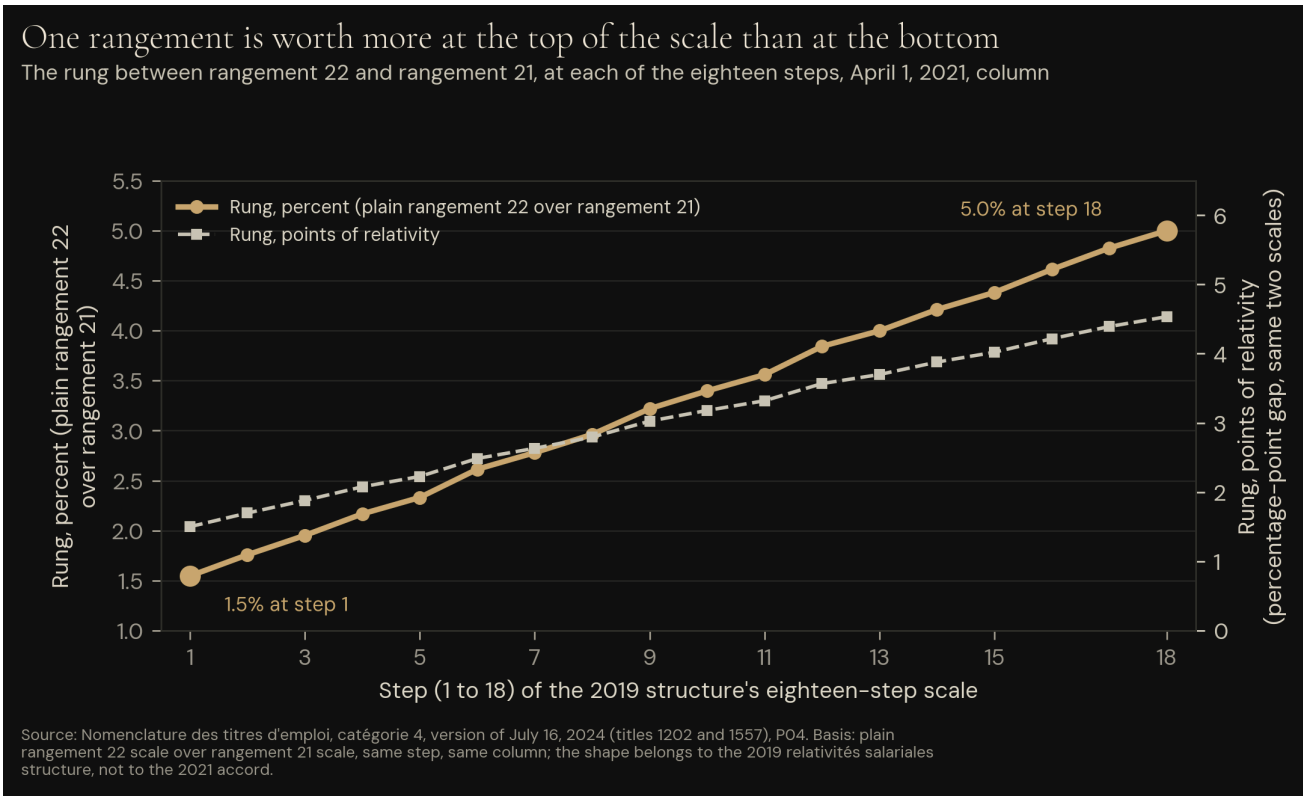
Source: Nomenclature des titres d'emploi, des libellés, des taux et des échelles de salaire du réseau de la santé et des services sociaux, catégorie 4, version of July 16, 2024, Part III (rate tables for titles 1202, 1219, 1233 and 1557, PDF pages 90, 94, 97, 118); archived copy dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: scheduled hourly rates as printed, step against the same step in the same column; not realised pay. Rows and columns rendered by script from the parse (P04_quebec_steps.py), rounded to two decimals; differences quoted in the text are computed from unrounded values.

Table A5. Quebec: the rung between rangement 22 and rangement 21, in points of relativity, at each of the eighteen steps in the nine common rate columns.

Units: Table A2 minus Table A3 at the same step and column: the difference between the two lines' rates as a percentage of the physiotherapist's, in percentage points.

Step	April 2, 2019 (restated)	April 1, 2020 (restated)	April 1, 2021	April 1, 2022	April 1, 2023	April 1, 2024	April 1, 2025	April 1, 2026	April 1, 2027
1	1.48	1.49	1.50	1.53	1.51	1.50	1.50	1.49	1.50
2	1.69	1.69	1.70	1.72	1.72	1.71	1.69	1.68	1.69
3	1.88	1.88	1.88	1.89	1.88	1.86	1.84	1.83	1.85
4	2.09	2.08	2.08	2.08	2.09	2.09	2.09	2.10	2.11
5	2.25	2.24	2.23	2.25	2.24	2.27	2.27	2.27	2.27
6	2.49	2.47	2.49	2.50	2.50	2.49	2.51	2.50	2.52
7	2.62	2.63	2.63	2.64	2.63	2.61	2.62	2.64	2.62
8	2.79	2.79	2.80	2.77	2.77	2.77	2.75	2.76	2.76
9	3.00	3.00	3.03	3.02	3.02	3.02	3.01	3.01	3.00
10	3.17	3.19	3.18	3.17	3.19	3.20	3.21	3.20	3.20
11	3.32	3.31	3.32	3.33	3.33	3.33	3.32	3.32	3.34
12	3.56	3.56	3.57	3.57	3.57	3.59	3.58	3.58	3.58
13	3.70	3.70	3.70	3.70	3.71	3.71	3.73	3.72	3.71
14	3.87	3.86	3.88	3.87	3.87	3.86	3.87	3.87	3.87
15	4.04	4.03	4.02	4.03	4.03	4.04	4.04	4.03	4.03
16	4.21	4.21	4.22	4.20	4.20	4.20	4.21	4.20	4.20
17	4.40	4.40	4.39	4.39	4.39	4.38	4.38	4.38	4.39
18	4.55	4.54	4.53	4.52	4.53	4.52	4.53	4.52	4.52

Source: Nomenclature des titres d'emploi, des libellés, des taux et des échelles de salaire du réseau de la santé et des services sociaux, catégorie 4, version of July 16, 2024, Part III (rate tables for titles 1202, 1219, 1233 and 1557, PDF pages 90, 94, 97, 118); archived copy dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: scheduled hourly rates as printed, step against the same step in the same column; not realised pay. Rows and columns rendered by script from the parse (P04_quebec_steps.py), rounded to two decimals; differences quoted in the text are computed from unrounded values.



One rangement is worth more at the top of the scale than at the bottom. The rung between rangement 22 and rangement 21, at each of the eighteen steps, April 1, 2021, column, widens from 1.5 percent (1.5 points) at step 1 to 5.0 percent (4.5 points) at step 18, a property of the 2019 job-classification structure, not of the 2021 accord.

Figure 3. Quebec: the rung between the plain rangement 22 scale and the rangement 21 scale, at each of the eighteen steps of the 2019 relativités salariales structure, April 1, 2021, column. The rung is 1.5 percent at step 1 and 5.0 percent at step 18 (1.5 and 4.5 points of relativity on the dietitian-versus-physiotherapist basis); the shape belongs to the 2019 structure that assigned every parapublic class a rangement, not to the 2021 accord that moved the dietitian class onto rangement 22. Source: Nomenclature des titres d'emploi, catégorie 4, version of July 16, 2024, titles 1202 and 1557.

The alternative text and caption drafted for Figure 3 are in the data record (`analysis/P15/figures/ALT_TEXT.md`, added in version 1.1).

Appendix B. United Kingdom: the Band 5 profiles and the Whitley rows

Table B1. United Kingdom: the Agenda for Change job evaluation of the national Band 5 profiles for the dietitian and the physiotherapist, factor by factor, in points.

Factor	Dietitian: level	Dietitian: points	Physiotherapist: level	Physiotherapist: points
1. Communication and relationship skills	4(a)	32	4(a)	32
2. Knowledge, training and experience	5	120	5	120
3. Analytical and judgemental skills	3	27	3	27
4. Planning and organisational skills	2	15	2	15
5. Physical skills	2	15	4	42
6. Patient/client care	5(c)	30	5(a)	30
7. Policy/service development	1-2	5 to 12	1	5
8. Financial and physical resources	2(c)	12	1-2(a)(b)(c)	5 to 12
9. Human resources	2(b)	12	1-2(a)(b)	5 to 12
10. Information resources	1	4	1	4
11. Research and development	1-2(b)	5 to 12	1-2(a)	5 to 12
12. Freedom to act	3	21	3	21
13. Physical effort	1	3	2(d)-3(c)-4(b)	7 to 18

Factor	Dietitian: level	Dietitian: points	Physiotherapist: level	Physiotherapist: points
14. Mental effort	2(a)	7	2(a)	7
15. Emotional effort	2(a)-3(a)	11 to 18	2(a)-3(a)	11 to 18
16. Working conditions	2(a)	7	2(a)-3(a)(b)	7 to 12
Total, as printed		326 to 347		343 to 387
Band		5		5

Units: job evaluation points. Where a profile prints a range of levels for a factor, the points run from the lowest level printed to the highest; the physiotherapist's physical effort prints three levels, 2(d)-3(c)-4(b), scored 7-12-18.

Source: NHS Employers, national job profiles for Dietetics (the Dietitian profile, last published November 2004) and for Physiotherapy (the Physiotherapist profile, last published January 2005), dates as given in the national profile index of January 2026; profile files as published April 2026, archived copies dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: job evaluation scores of national profiles, not of individual posts, and not pay; Band 5 spans 326 to 395 points. Levels and points rendered by script from the archived profile table and checked cell by cell against the profile text, the profile index and the scheme's points for each factor level.

The two profiles score knowledge, training and experience alike, at level 5 and 120 points each. Points differ on six of the sixteen factors: the physiotherapist's are higher or reach higher on physical skills (42 against 15), physical effort (7 to 18 against 3) and working conditions (7 to 12 against 7), and the dietitian's on policy/service development (5 to 12 against 5), financial and physical resources (12 against 5 to 12) and human resources (12 against 5 to 12). The totals overlap between 343 and 347 points, and the physiotherapist's floor is 17 points above the dietitian's.

Table B2. United Kingdom: the Whitley Council scales for dietitians and physiotherapists, grade by grade, from April 1, 2002, 2003 and 2004, in pounds.

Panel A. From April 1, 2002: circular PCS(PAM)(PTA)2002/1, dated March 15, 2002

Dietitians' grade	Physiotherapists' grade	Dietitians' points (£)	Physiotherapists' points (£)	Same points
No dietitian grade	Area I		36,530; 37,840	No
Area Senior Chief	Area II	33,020; 34,190; 35,360; 36,530	33,020; 34,190; 35,360; 36,530	Yes
Area Chief I	Superintendent I	31,990; 33,020; 34,190; 35,360	29,990; 30,970; 31,990; 33,020	No
Area Chief II	Superintendent II	29,010; 29,990; 30,970; 31,990	27,140; 28,060; 29,010; 29,990	No
Chief III Discretionary	Superintendent III Discretionary	28,060; 28,540	28,060; 28,540	Yes
Chief III	Superintendent III	24,995; 25,695; 26,410; 27,140; 27,600	24,995; 25,695; 26,410; 27,140; 27,600	Yes
Chief IV Discretionary and Senior I Discretionary	Superintendent IV Discretionary and Senior I Discretionary	26,410; 26,775	26,410; 26,775	Yes
Chief IV and Senior I	Superintendent IV and Senior I	21,825; 22,875; 23,930; 24,995; 25,695; 26,055	21,825; 22,875; 23,930; 24,995; 25,695; 26,055	Yes
Senior II Discretionary	Senior II Discretionary	23,930; 24,465	23,930; 24,465	Yes
Senior II	Senior II	18,375; 19,155; 20,045; 20,935; 21,825; 22,875; 23,405	18,375; 19,155; 20,045; 20,935; 21,825; 22,875; 23,405	Yes
Dietitian/Diploma Entrant	3 years training	17,115; 17,745; 18,375; 19,155	17,115; 17,745; 18,375; 19,155	Yes
Dietitian/Graduate Entrant	Graduate entrant 4 years training (with a relevant degree)	17,745; 18,375; 19,155	17,745; 18,375; 19,155	Yes

Panel B. From April 1, 2003: circular PCS(PAM)(PTA)2003/2, dated June 23, 2003

Dietitians' grade	Physiotherapists' grade	Dietitians' points (£)	Physiotherapists' points (£)	Same points
No dietitian grade	Area I		37,715; 39,065	No
Area Senior Chief	Area II	34,085; 35,295; 36,505; 37,715	34,085; 35,295; 36,505; 37,715	Yes
Area Chief I	Superintendent I	33,025; 34,085; 35,295; 36,505	30,960; 31,970; 33,025; 34,085	No
Area Chief II	Superintendent II	29,950; 30,960; 31,970; 33,025	28,020; 28,965; 29,950; 30,960	No
Chief III Discretionary	Superintendent III Discretionary	28,965; 29,465	28,965; 29,465	Yes
Chief III	Superintendent III	25,805; 26,525; 27,265; 28,020; 28,495	25,805; 26,525; 27,265; 28,020; 28,495	Yes
Chief IV Discretionary and Senior I Discretionary	Superintendent IV Discretionary and Senior I Discretionary	27,265; 27,645	27,265; 27,645	Yes
Chief IV and Senior I	Superintendent IV and Senior I	22,535; 23,615; 24,705; 25,805; 26,525; 26,900	22,535; 23,615; 24,705; 25,805; 26,525; 26,900	Yes
Senior II Discretionary	Senior II Discretionary	24,705; 25,255	24,705; 25,255	Yes

Dietitians' grade	Physiotherapists' grade	Dietitians' points (£)	Physiotherapists' points (£)	Same points
Senior II	Senior II	18,970; 19,775; 20,695; 21,615; 22,535; 23,615; 24,160	18,970; 19,775; 20,695; 21,615; 22,535; 23,615; 24,160	Yes
Dietitian/Diploma Entrant	3 years training	17,670; 18,320; 18,970; 19,775	17,670; 18,320; 18,970; 19,775	Yes
Dietitian/Graduate Entrant	Graduate entrant 4 years training (with a relevant degree)	18,320; 18,970; 19,775	18,320; 18,970; 19,775	Yes

Panel C. From April 1, 2004: circular PCS(PAM)(PTA)2004/1, dated March 15, 2004

Dietitians' grade	Physiotherapists' grade	Dietitians' points (£)	Physiotherapists' points (£)	Same points
No dietitian grade	Area I		38,935; 40,325	No
Area Senior Chief	Area II	35,185; 36,435; 37,685; 38,935	35,185; 36,435; 37,685; 38,935	Yes
Area Chief I	Superintendent I	34,095; 35,185; 36,435; 37,685	31,960; 33,005; 34,095; 35,185	No
Area Chief II	Superintendent II	30,920; 31,960; 33,005; 34,095	28,925; 29,900; 30,920; 31,960	No
Chief III Discretionary	Superintendent III Discretionary	29,900; 30,420	29,900; 30,420	Yes
Chief III	Superintendent III	26,640; 27,385; 28,145; 28,925; 29,415	26,640; 27,385; 28,145; 28,925; 29,415	Yes
Chief IV Discretionary and Senior I Discretionary	Superintendent IV Discretionary and Senior I Discretionary	28,145; 28,540	28,145; 28,540	Yes
Chief IV and Senior I	Superintendent IV and Senior I	23,265; 24,380; 25,505; 26,640; 27,385; 27,770	23,265; 24,380; 25,505; 26,640; 27,385; 27,770	Yes
Senior II Discretionary	Senior II Discretionary	25,505; 26,070	25,505; 26,070	Yes
Senior II	Senior II	19,590; 20,415; 21,365; 22,315; 23,265; 24,380; 24,940	19,590; 20,415; 21,365; 22,315; 23,265; 24,380; 24,940	Yes
Dietitian/Diploma Entrant	3 years training	18,240; 18,915; 19,590; 20,415	18,240; 18,915; 19,590; 20,415	Yes
Dietitian/Graduate Entrant	Graduate entrant 4 years training (with a relevant degree)	18,915; 19,590; 20,415	18,915; 19,590; 20,415	Yes

Units: full-time salary scale points in pounds, each grade's points from its first to its last; points on the discretionary grades are the circulars' starred discretionary points.

Source: Scottish Executive Health Department, NHS circulars PCS(PAM)(PTA)2002/1 (March 15, 2002), PCS(PAM)(PTA)2003/2 (June 23, 2003) and PCS(PAM)(PTA)2004/1 (March 15, 2004), Appendix A tables for dietitians and physiotherapists, each effective from April 1 of its year; archived copies dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: scheduled full-time salary points as printed, not realised pay; grades that sit on different points are paired by their place in the two ladders. The physiotherapists' teaching grades, the protected remedial gymnast grades and the helper grades printed on the same pages are left out. Rows rendered by script from the archived table of grade pairs and checked against a parse of each circular's two tables, which the table of pairs covers row for row.

In each of the three years nine rows carry identical points in both professions, counting the discretionary points and the two entrant scales. Area Chief I and II and Superintendent I and II sit on different points of the same spine, and physiotherapy's Area I, on which no dietitian grade sits, tops the dietitians' highest point by one spine point in each year (37,840 against 36,530 in 2002; 39,065 against 37,715 in 2003; 40,325 against 38,935 in 2004).

Appendix C. New Zealand: the pre-settlement scales and the settlement steps

Table C1. New Zealand: the dietitians' and physiotherapists' pre-settlement scales at each of the seventeen steps, with each agreement's column date, and the step each row translates to at June 1, 2023.

Step	Dietitians, APEX clause 5.2.1, column dated June 4, 2022	Physiotherapists, APEX clause 5.1, column dated May 2, 2022	Difference	Dietitians as % of physiotherapists	Translation at June 1, 2023, roles not designated	Translation at June 1, 2023, designated roles
1	59,035	55,535	3,500	106.30	Step 1: 70,842	Row not printed
2	63,702	60,202	3,500	105.81	Step 2: 76,442	Row not printed
3	68,371	64,871	3,500	105.40	Step 3: 82,045	Row not printed
4	73,037	69,537	3,500	105.03	Step 4: 87,644	Row not printed
5	77,705	74,205	3,500	104.72	Step 5: 93,246	Row not printed
6	80,778	77,278	3,500	104.53	Step 6: 97,741	Row not printed
7	83,030	79,530	3,500	104.40	Step 7: 100,466	Row not printed
8	85,992	82,492	3,500	104.24	Additional Progression Step: 103,000	Row not printed

Step	Dietitians, APEX clause 5.2.1, column dated June 4, 2022	Physiotherapists, APEX clause 5.1, column dated May 2, 2022	Difference	Dietitians as % of physiotherapists	Translation at June 1, 2023, roles not designated	Translation at June 1, 2023, designated roles
9	87,999	84,499	3,500	104.14	Recognition step 1: 106,000	Designated A, step 2: 106,000
10	90,534	87,034	3,500	104.02	Recognition step 2: 109,000	Designated A, step 3: 109,000
11	94,266	90,766	3,500	103.86	Recognition step 2: 109,000	Designated B, step 2: 111,500
12	99,420	95,920	3,500	103.65	Recognition step 2: 109,000	Designated B, step 3: 114,000
13	104,108	100,608	3,500	103.48	Recognition step 2: 109,000	Designated C, step 2: 116,500
14	108,457	102,757	5,700	105.55	Salary (post interim adjustment) maintained; see note	Designated C, step 3: 119,000
15	112,807	107,107	5,700	105.32	Salary (post interim adjustment) maintained; see note	Designated D, step 2: 121,500
16	115,270	109,570	5,700	105.20	Salary (post interim adjustment) maintained; see note	Designated D, step 3: 124,000
17	118,982	113,282	5,700	105.03	Salary (post interim adjustment) maintained; see note	Designated E, step 2: 127,000

Units: salary rates in New Zealand dollars as printed; the percentage is the dietitians' rate divided by the physiotherapists' at the same step, rounded to two decimals.

Source: Health New Zealand (2023b), translation schedule for degreed allied, public health, scientific and technical roles (workbook sheet 'TRANSLATION SCHEDULE - DEGREED'), which prints each APEX agreement's pre-settlement column under its clause and date beside the settlement rates effective June 1, 2023; archived copy dated September 5, 2026, SHA-256 in the source manifest (Appendix E). Basis: scheduled salary rates, step against the same step; not realised pay. The printed rates are exact public figures, so the ratios carry no sampling error. Rows rendered by script from the workbook, read by two independent parsers.

The column headers date the physiotherapists' scale May 2, 2022 and the dietitians' June 4, 2022. The dietitians' rate is 3,500 dollars above the physiotherapists' at each of the first thirteen steps and 5,700 dollars above at the last four, 103.48 to 106.30 percent read at face value. The two scales carry effective dates one month apart, so the design's rule admits no pre-period; whether the 3,500-dollar gap would have closed in physiotherapy's next round is not known.

The two professions' columns sit on the same rows of the schedule, so each row's translation applies to both, and the settlement's steps are one scale: 70,842 dollars at step 1 to 100,466 at step 7, with an additional progression step at 103,000. For roles not designated, the rows for steps 14 to 17 print no new rate but 'Salary (post interim adjustment) maintained (see notes)'. The schedule's notes treat employees who progressed onto steps 11 to 19 by merit and are not in a designated position by their salary at June 1, 2023: those paid above Recognition Step 2 (109,000 dollars) keep their current rate, and those paid below translate to a step the note prints as 'Recognition Step 10', which is not among the steps the sheet prints.

Appendix D. Methods detail

Summaries of a scale. Quebec ratios are unweighted means of the eighteen step ratios, each step's rate divided by the rate at the same step of the other scale in the same column. For the same nine columns of the version of July 16, 2024, the ratio of the two scales' means (plain rangement 22 over rangement 21) holds at 3.46 percent in every column, while the mean of the eighteen step ratios runs from 3.28 to 3.29 percent. The two summaries diverge because the rung between the scales widens with each step, from 1.5 percent at the first to 5.0 at the eighteenth; a ratio of means weights each step by its own dollar level, so the higher, more senior steps pull it above the plain average the mean of step ratios gives every step alike. The report uses the unweighted mean of step ratios as the headline throughout the body, because Quebec's eighteen steps stand for years of service, not for dollar amounts, and treats the ratio of means as the check reported here. Ontario ratios are read at the start rate and at the job rate, because the plan's adjustment is a flat dollar amount whose percentage falls along the scale.

The multiplicative identity. Where an instrument prints a schedule with and without an adjustment, the adjusted ratio equals the unadjusted ratio multiplied by $(1 + a_D)/(1 + a_P)$, where a_D and a_P are the proportions by which the adjustment raises the dietitian's and the physiotherapist's rates. The gate checks the identity at every Ontario step.

Restated retroactive columns. Columns an instrument prints for dates before it was agreed, such as the 2019 and 2020 columns of the Quebec Nomenclature, show rates as a settlement restated them, not the rates in force on those dates; the figures mark them.

Parsing. Nomenclature tables (Quebec) are parsed with pdftotext in layout mode; each title's eighteen step rows are matched by a per-line regex, and the class number prints only on the first step row of each block, so the parser accepts an optional leading class number on a row rather than expecting one on every row. Filed Ontario schedules are read from a wage grid already transcribed to a table; the filed agreement's own text is separately extracted with plain pdftotext and lower-cased, to check exact quoted wording, such as the two schedule headings, rather than to re-derive the numbers. Whitley circulars (2002 to 2004) are parsed with pdftotext in layout mode; each circular's own header line is matched only within the first six hundred characters of the extracted text, which is where layout mode places it, and the grade and point figures of the rows that differ between the two professions are then matched against the text collapsed to one line, while the nine identical rows of each year are asserted against the author's table of matched grades. Health Service Executive scales (Ireland) are parsed with pdftotext in layout mode; each of the seven title codes is matched by a per-line regex anchored on the code, the effective date and the printed floor and ceiling, and two of the seven codes carry a placeholder letter in the position the source itself prints as a variable suffix, so the regex matches the code exactly as printed rather than assuming four digits. The New Zealand translation workbook is parsed directly as a spreadsheet archive rather than through a spreadsheet library: numeric cell values and label text are read from two separate parts of the file and combined, because some printed dollar figures sit in the sheet as text rather than as numeric cells; dollar signs and both plain and non-breaking spaces used as thousands separators are stripped before matching. Neither the Alberta nor the British Columbia schedule is parsed live from a filed wage table in this pass. Alberta's in-force figures are checked against the results file of the task that re-derived them from the ratified agreement. The provenance record built earlier backs only the superseded April 1, 2023, figures, which the gate bars from the text. Alberta's statute catalogue pages are checked only for the absence of named terms, which supports a searched-and-not-found statement rather than a wage scale. British Columbia's figures come from a structured record built earlier from its source.

What the gate re-derives. The gate reads the report's text and re-derives the figures in it from the archived instruments themselves, except that Ontario's rates are read from a wage grid transcribed from the filed schedules, Alberta's and British Columbia's from records built from their schedules, and part of the United Kingdom's from the author's own tables, as the Parsing paragraph above and the list below say: Quebec's eighteen step ratios in each of the nine rate columns, and the rung at the first step, the rung at the top step, the unweighted mean of the step ratios and the ratio of the scales' means for each of the four job classes paragraph 10 of the accord raised, from the Nomenclature of July 16, 2024 and the accord itself; Ontario's filed wage grid, the two schedules of the central agreement of April 1, 2022 to March 31, 2025, the flat adjustments and their annual translation; the Whitley rows of the circulars of 2002, 2003 and 2004 (the rows that differ between the two professions against the circulars; the nine identical rows of each year and the 2004 spine points against the author's table of matched grades) and the two Band 5 profiles (the score ranges against the profile text, the factor rows against the author's table of them); the seven title codes on the Irish staff grade from the Health Service Executive scales of June 1, 2026; the New Zealand scales from the settlement translation workbook; and the Alberta and British Columbia columns, against those records. It matches every verbatim quotation against the source that issued it, requires every in-text citation to have a reference entry and every entry to be cited, asserts every cell of Tables 2 to 4 and of Appendix A; for Table 1 and Table 5 it checks that no cell is empty and that the regimes, events and values the text relies on are as printed, and for Box 1 and Appendices B and C that the passages and values the text relies on are present; and requires that the wordings withdrawn in review do not return. It reconciles every numeric token the report prints, table cells, captions and appendices included, and every figure written in words, against the values recorded in the build, and allows an exception only where a listed reason says why: identifiers such as DOIs and the Wayback timestamps in the references, two paragraph locators checked against the decision itself, and the gate's own check count. Match is exact on the printed form, so no tolerance and no rounding is applied. It also requires every stretch of absence language in the text to be one a build step has recorded reading, so a new statement that something was not found cannot reach the reader unread. A check that cannot run counts as a failure: a section that raises an error records that error as a failed check, and the run fails if any section reports fewer checks than it owes.

What the negative tests must catch. Thirty mutations, each planting one error of a kind that editing a report of this sort actually produces, are applied to a copy of the text, and each must make a named check fail that does not fail on the unmutated copy: a mistyped cell in Table 2, Table 3, Table 4, Appendix A and Box 1, and in the British Columbia range and the comparator point totals; a derived annual-dollar amount altered; a deleted Appendix A row and a deleted appendix heading; a quotation altered by one word; a broken reference entry and a narrative citation with no entry; a typology cell in Table 1 changed so that it contradicts the design, and the sentence that states the basis of Table 2's lines deleted; a reworded status note; an em dash; the two clauses about the correctif withdrawn in review and the deleted audiologist counter-example; and seven insertions that would return a figure, a self-citation or a journal name that this release does not carry; a figure that matches no recorded value; a statement that something was not found that no step has recorded reading; and a reviewed absence sentence reworded. Thirty of thirty were caught on September 16, 2026. Version 1.1 adds eighty-one more, for the wording of the corrections and of the data record, and all 111 were caught (`gate/NEGATIVE_TESTS_RESULT_2026-10-02_v1.1.txt`).

The run. On its first full run, on September 16, 2026, the gate failed seven checks, and each is an item of the report's own apparatus that was still open on that date: the two searches reported in 3.3 and 4.2, which need a browser session the build could not run; the file name of the dated verification sheet; the release-week re-pull of Appendix F; and the four deposit identifiers. None of the seven is a figure, a quotation, a citation or a table cell. The gate was run again on the final text on October 22, 2026, once those items had closed, and all 2,737 checks passed; the check count printed in the status note and in How this report was checked, and the date printed in the second, are those of that run. The records of the first full run and of the negative tests of September 16, 2026, are in the data record, in `gate/` (added in version 1.1).

Appendix E. Sources and verification

The source manifest has two parts. `SOURCE_MANIFEST.csv` (193 rows), in version 1.0 of the data record, compiles inputs from the download records of tasks P05 to P10 and P12 and ten shared files, giving issuer, document, retrieval date, archive capture and SHA-256 for every row and the vintage or effective date in the 16 rows that state it (the other 177 point to a task's RESULTS.md or to the literature file for it); it does not list every download those records hold. `SOURCE_MANIFEST_v1.1_additions.csv` (43 rows), added in version 1.1, lists the archived inputs that the validity gate and the

analysis scripts open by name and the first part does not list, with the same fields, says where the version 1.0 record already carries the same digest, and marks the author's own tables as such. The pages that tasks fetched by script are recorded, with address, retrieval time and SHA-256, in each task's own DOWNLOADS.csv (tasks P05 to P13 and P26). Every hash in the first part was computed on September 16, 2026, directly from the file on disk, not copied from an earlier manifest; every one of the 193 that could be cross-checked against a value already on record matched exactly. Every hash in the second part was computed directly from the file on disk, on October 2, 2026 or, for the five rows added later, on October 6, 2026 (the date is in each row), and each of the 22 that the version 1.0 record also carries matched it. Of the two filed copies cited for Ontario's central terms, e-Library record 178909 is archived (second part); record 178882 was cited as the second filed copy of the same terms, and was not archived or re-read (analysis/P01/RESULTS.md).

Load-bearing claims, by status:

OK, verified against the primary or against an archived, hash-recorded copy of it. The Quebec rangement 21 identity: three titles (1557, 1560, 1701) print the same placement line and identical scales at all 18 steps across all 9 columns (486 cells compared, by three independent routes). The 2025 New Zealand Equal Pay Amendment Act, read from the primary PCO text; the live site returned an automated-traffic challenge on September 15, 2026, so the Act was read through Internet Archive captures of the same primary document, not through a secondary paraphrase. The 1974 Irish Anti-Discrimination (Pay) Act, s. 3(c): first read in a browser (PRECISION, no independently hashable archive), then retrieved by script from the Irish Statute Book and archived with a verified hash, with s. 3(c) matched verbatim; this row is upgraded from PRECISION to OK. The statements in sections 6 and 7 that the Health Service Executive scales never mention pay equity or gender, and that the Alberta agreement never mentions pay equity, equal pay or job evaluation, rest on a term search of the searchable text of the archived copies (all 71 pages of the first; 309 of the 317 pages of the second, the other eight being tables of travel distances and times that lack a text layer and were viewed), recorded in `analysis/P28/TERM_SEARCH_2026-10-02.md` (searched on October 2, 2026; the eight pages were viewed on October 2 and 6, 2026).

PRECISION, stated openly. The 2023 New Zealand settlement's signature date is read from a scanned PDF's decoded text layer, not a text-native document. All eight literature works restored for this report (McDonald & Thornton 1998; Gupta, Singh & Balcom 2022; Singh 1994; McGregor & Davies 2019; Cortis & Meagher 2012; Austen, Jefferson & Preston 2013; Provis 1986; Green 1996) are characterised from their titles and indexed or publisher abstracts; no full text was retrieved for any of them, and two files in the cache that are named as if they held full text were opened and confirmed to be bot-challenge pages rather than the article.

Not yet a searched-and-not-found result. The Tribunal administratif du travail's own reasoned decisions on the two Quebec contestations discussed in sections 3.3 and 4.2 (dietitian-adjacent classes) were not reached: SOQUIJ blocks scripted access and CanLII returned an access error on September 15, 2026, and SOQUIJ itself has not been searched directly.

Appendix F. Status as of release

Instruments, statutes and decisions can change between writing and release. Table F1 records, for each item that could move, the source checked, what it showed and the date it was read.

Table F1. Status of the instruments, decisions, statutes and statute indexes read in this report, as read again on September 29, 2026. The first check, on September 15, 2026, is described below the table.

Item	Source checked	What it showed	Checked
Quebec: Nomenclature edition	Comité patronal de négociation du secteur de la santé et des services sociaux, page *Titres d'emploi, salaires et primes* and the file it links as "Nomenclature en vigueur comprenant les paramètres salariaux et les majorations prévues aux conventions collectives 2024-2028" [Nomenclature in force, including the salary parameters and increases provided for in the 2024 to 2028 collective agreements], dated September 15, 2026, which replaced the file dated June 9, 2026, that the page linked at the first check	A later edition than the one of July 16, 2024, read here. For titles 1219, 1233, 1202 and 1557 it prints the same rangement lines, and the same rate at all eighteen steps in every column from April 2, 2019 (from April 1, 2020, for 1219) to April 1, 2025. It adds a column dated March 31, 2026, 0.09 to 0.13 percent above April 1, 2025, at each step, and prints the April 1, 2026 and April 1, 2027, rates 3 to 7 cents an hour higher; the page says the PDF must be consulted "en raison de l'application de la clause d'ajustement" [because of the application of the adjustment clause]. Recomputed on this file, Table 2 changes only at April 1, 2027, where the dietitian's ratio to the physiotherapist is 98.82 rather than 98.81; the March 31, 2026, column reads 1.0200, 1.0329, 98.81, 96.88 and 93.81. For these four titles the file dated September 15, 2026, prints the same rangement lines and the same rate in every cell as the file dated June 9, 2026.	September 29, 2026

Item	Source checked	What it showed	Checked
Ontario: successor to the Hospital Professionals Division central agreement, April 1, 2022 to March 31, 2025	Ontario Collective Agreements e-Library, full listing of filed agreements (file dated September 1, 2026); the division's bargaining team update of March 2026, as posted by OPSEU Local 479	The listing includes the two filed copies cited here (178909, Muskoka Algonquin Healthcare; 178882, Collingwood General and Marine Hospital) and 81 hospital agreements of the Ontario Public Service Employees Union running from April 1, 2022 to March 31, 2025. A search of the listing found no agreement of that union starting on or after April 1, 2025, at any of those 81 hospitals; agreements of other unions starting in 2025 and 2026 are listed at both hospitals whose filed copies are cited. The update reports that arbitrator Colin Johnston heard the outstanding items and "will then issue a final and binding decision on outstanding items in the coming months". The 2022 to 2025 schedules are the latest central schedules found. The listing file retrieved on September 29, 2026, is identical, byte for byte, to the one read on September 15, 2026, and the text of the update is unchanged.	September 29, 2026
Quebec: Tribunal administratif du travail decisions on the 2010 maintenance exercise, and the physiotherapists' contestation of the Commission's decision of November 7, 2023	Alliance du personnel professionnel et technique de la santé et des services sociaux (APTS), page on the Commission's 2010 maintenance decisions	The page, read in full, is unchanged from the copy archived on September 5, 2026; the only 2024 to 2026 date in its body is the February 5, 2024, deadline it gives for contesting the physiotherapists' decision before the Tribunal. The Tribunal decisions of November 4, 2024, April 15, 2026 and June 12, 2026, are treated in 4.2.	September 29, 2026
Quebec: complaints on the 2020 maintenance exercise, and the 2025 exercise	APTS pages *Maintien de l'équité 2020* and *Maintien de l'équité 2025*	The 2020 page is unchanged from the copy archived on September 6, 2026: it gives May 18, 2024, as the complaint deadline, still states "L'APTS déposera une plainte syndicale générale" [the APTS will file a general union complaint], and reports no outcome. The 2025 page states that the exercise covers December 21, 2020 to December 20, 2025, that it is conducted by a joint committee formed in September 2025, and that "La date du premier affichage est inconnue" [the date of the first posting is unknown]. The later Nomenclature file (first row) prints no change of rangement for the four titles.	September 29, 2026
British Columbia and Alberta: columns in force	Health Employers Association of British Columbia, Health Science Professionals wage schedule 2025 to 2029; Health Sciences Association of Alberta and Alberta Health Services agreement 2024 to 2028, ratified copy	The copies posted by the issuers are identical to the copies read in section 7. The British Columbia schedule prints columns from the first pay period after April 1, 2025, 2026, 2027 and 2028, so the April 2026 column is in force at release and the 2027 and 2028 columns are future rates. The Alberta salaries appendix prints rate rows from April 1, 2023 to April 1, 2027. The columns read are stated in section 7 and Table 1.	September 29, 2026
New Zealand: Equal Pay Amendment Act 2025	New Zealand Legislation (Parliamentary Counsel Office)	Read from the Parliamentary Counsel Office's PDF of the Act as archived in May 2025 (2.1 and References). The live legislation site could not be read on September 15 or 29, 2026, its server answering each scripted request with a challenge that was not bypassed, so a later version of the Act or of the Equal Pay Act 1972 was neither found nor excluded on either date.	September 29, 2026

Item	Source checked	What it showed	Checked
Quebec: Loi sur l'équité salariale, RLRQ, c. E-12.001	LégisQuébec, French consolidation, web page and PDF	"À jour au 10 juin 2026" [up to date to June 10, 2026], a later consolidation than the one read on September 5 and 6, 2026, which was up to date to April 7, 2026. The passages quoted from ss. 1 and 76.1 and the text of ss. 76.9, 103.0.1 and 103.0.2 read on September 5, 2026, are present verbatim in it, and the amendment notes are as read (s. 76.9 last amended by 2025, c. 23, a. 85). A search of the consolidation for 2026 amending references found one, 2026, c. 5, a. 367, at s. 67, which this report does not rely on.	September 29, 2026
Ontario: Pay Equity Act, R.S.O. 1990, c. P.7	Ontario e-Laws consolidation	"Consolidation Period: From June 28, 2024 to the e-Laws currency date"; last amendment 2023, c. 19, s. 22. The passages quoted from ss. 1(1), 4(1), 6(1) and 9(1) read as in the copy archived on September 5, 2026, and ss. 6(3), 9(3), 14(4) and 14(5) are present.	September 29, 2026
British Columbia: statute index	BC Laws, Public Statutes and Regulations index, A to Z	889 titles, the same list as on September 5, 2026. A search of the titles for "pay equity" and "equal pay" found none; the index lists the Human Rights Code [RSBC 1996] c. 210 and the Pay Transparency Act [SBC 2023] c. 18.	September 29, 2026
Alberta: statute catalogue	Alberta King's Printer, Laws Online catalogue, front page and alphabetical listings for E and P	Front page: "Acts current to 2026-08-31". The E listing is identical, byte for byte, to the one archived on September 6, 2026. The P listing carries three titles it did not carry then: the Police Governance (Ministerial) Regulation, the Public Works Act and the Public Works Regulation. A search of both listings for "Pay Equity", "Equal Pay" and "Pay Transparency" found none.	September 29, 2026
Ireland: Anti-Discrimination (Pay) Act 1974	Irish Statute Book, Act No. 15 of 1974, as enacted	Archived as a file. Section 3(c) reads "where the work performed by one is equal in value to that performed by the other in terms of the demands it makes in relation to such matters as skill, physical or mental effort, responsibility and working conditions"; the Act is dated July 1, 1974.	September 29, 2026

Source: the pages and files named, as read on the date given; retrieval times and SHA-256 digests of the first checks of September 15, 2026, are in `analysis/P05/DOWNLOADS.csv`, `analysis/P07/DOWNLOADS.csv` and `analysis/P08/DOWNLOADS.csv`, and those of the reads of September 29, 2026, are in `analysis/P26/DOWNLOADS.csv`, all in the data record.

Every item in Table F1 was first checked on September 15, 2026 and read again on September 29, 2026; the table gives what each source showed on the second date. Three items had moved in between, and none changes a figure in this report. The Quebec page now links a Nomenclature file dated September 15, 2026, which for the four titles read prints the same rangement lines and the same rate in every cell as the file dated June 9, 2026. The Quebec consolidation is now up to date to June 10, 2026, and every passage quoted from it here is present verbatim. The Alberta listing for P carries three titles more than on September 6, 2026, none of them a pay equity statute. The New Zealand legislation site again could not be read.

Appendix G. Wage comparisons and job evaluation

This appendix omits Ross (1948), Dunlop (1957), Brown and Sisson (1975) and Steinberg (1990), because none of the four was read in full before this release. Open or licensed full text was searched for on September 15, 2026 through Crossref, OpenAlex, Semantic Scholar, the Internet Archive and the HathiTrust catalogue, and none was found by those routes: the copies located are closed access or restricted to library lending, and the 1948 book carries a United States copyright renewal registered on May 10, 1976. The report's account of this literature is the single paragraph in 2.2, where the four works are characterised from their titles and abstracts, which Appendix E records as a precision limitation. No figure, table or finding in this report is drawn from them. The appendix therefore records a limitation and makes no claim about what the four works contain.

Appendix H. Supporting detail moved from the main text

This appendix holds, unchanged, four passages the main text points to.

New Zealand's Equal Pay Amendment Act 2025

That process was amended by the Equal Pay Amendment Act 2025 (Public Act 2025 No 21), which received Royal assent on May 13, 2025 and came into force on May 14, 2025. The Act raised the threshold for a pay equity claim from work performed, currently or historically, by a workforce of which "approximately 60% or more members are female" (Equal Pay Act 1972, s. 13F(2), version as at December 20, 2023) to work performed by a workforce "at least 70% female" for "at least 10 consecutive years immediately before the date on which the claim was raised" (Equal Pay Amendment Act 2025, s. 4(2)). It replaced a list of comparable work that "may include any of the following" with a "Method of selection: hierarchy", running from comparators the employer employs to those of similar employers and then of other employers in the same industry or sector (s. 29, new s. 13ZE(2) and (3)). And it provided that "An existing pay equity claim is discontinued on the commencement date", an existing claim being one raised before that date that "did not have a pay equity claim settlement recorded" (Schedule, inserting Schedule 1, Part 2, clauses 7 and 8). For a settlement recorded before that date and in force immediately before it, the Act instead bars a new claim for the same employees and work "within 10 years after the date of a specified pay equity claim settlement" unless the Employment Relations Authority or the court determines that it may be raised (clause 9). It also provides that from that date "a review clause has no effect", a review clause being one in such a settlement that sets out a process for reviewing remuneration "to ensure that pay equity is maintained" (clauses 7 and 10). The 2023 settlement read in 6.3 describes itself as "a pay equity claim settlement for the purposes of the Equal Pay Act 1972", and its parties agreed to "review the remuneration agreed in this Settlement Agreement to ensure that pay equity is maintained", the first review to occur "no later than two years after the Settlement Date" (Health New Zealand, 2023a, paras. 1, 33 and 35). Read against clauses 7 and 10, that review clause has had no effect since May 14, 2025.

The outcome literature on comparable worth

The outcome literature on comparable worth asks what an intervention did to the targeted female jobs' pay or to the gender gap: the American plans of the 1980s (Sorensen, 1987; Orazem & Mattila, 1990), Ontario's equal pay legislation (Gunderson, 1985) and its Act as an event in a decentralised labour market (Baker & Fortin, 2004), and pay equity as bargained rather than adjudicated (Hart, 2002). In Ontario's private sector, McDonald and Thornton (1998) surveyed twenty-seven Toronto firms and reported that pay equity adjustments had been modest in magnitude and scope, that most firms found pay equity a significant administrative burden with difficulties and complaints over job evaluation, and that there was evidence of noncompliance with and manipulation of the Act's requirements. Decades into Canada's pay equity policies, Gupta et al. (2022) found a significant gender wage differential in each of thirteen health, education and STEM professions, in pooled 2006 and 2016 census employment earnings of degree-holding professionals aged twenty-five to fifty-four, and suggested that the part their models left unexplained may be attributed, at least in part, to persistent unmeasured discrimination; their measure is census earnings rather than scale rates. Singh (1994) read *Enderby* for its wider implications for issues related to equal pay for work of equal value and for industrial relations generally, with emphasis on the issues raised for practitioners. In New Zealand, McGregor and Davies (2019) attribute the pay equity settlement the government announced in 2017 for healthcare workers in aged and disability residential care and home and community support services to a combination of complementary and intersecting elements of mobilisation: a statutory human rights inquiry, legal opportunity, civil society coalition building, increased women's voice and a government-led negotiated settlement. In Australia, the equal remuneration case for the social and community services sector has been examined as an attempt to address the undervaluation of care work through a test case of the expanded equal remuneration clause in the Fair Work Act 2009 (Cortis & Meagher, 2012), and through the two economic analyses of gender and pay submitted to Fair Work Australia in it, which Austen et al. (2013) contrast on how differences between specific jobs and occupations are understood, on the meanings attached to value and productivity, and on the distinction between discrimination and undervaluation. Keeping relativities between jobs has also been defended on grounds of justice: Provis (1986) separated a core version of comparative wage justice, that identical jobs should be paid equally, from extended versions advocating proportional payment of different jobs and maintenance of established relativities, and Green (1996) argued that in Australia's transition to more decentralised wage bargaining the doctrine continued to be a major factor in the adjustment of wage rates within and between awards, particularly as a result of the national wage case decisions of 1988 and 1989.

A later edition of the Quebec Nomenclature

A later edition exists: the Nomenclature that the Comité patronal de négociation du secteur de la santé et des services sociaux posted as in force, in a file dated June 9, 2026 and read on September 15, 2026, prints the same rangement lines for titles 1219, 1233, 1202 and 1557 and the same rate at every step in every column to April 1, 2025, adds a column dated March 31, 2026, that stands 0.09 to 0.13 percent above the April 1, 2025, column at each step, and prints the April 1, 2026 and April 1, 2027, rates 3 to 7 cents an hour above the edition read, so the 2026 and 2027 columns of the edition read are not the rates the later file schedules. Recomputed on that file, every Table 2 value in the columns both editions print is unchanged at the printed precision except the dietitian's ratio to the physiotherapist at April 1, 2027, which is 98.82 rather than 98.81; the later file's dietitian block begins at April 1, 2020, so the April 2, 2019, dietitian column is read from the 2024 edition only (Appendix F). The file the committee posted in its place, dated September 15, 2026 and read on September 29, 2026, prints the same rate in every cell for these titles as the file dated June 9, 2026.

For readers in the United States

This section describes; it makes no recommendation and no prediction. United States public employers do print both professions in their pay instruments. At the Department of Veterans Affairs both are paid on the General Schedule, and both are hybrid Title 38 occupations: the department's list of Title 38 and hybrid Title 38 occupations, updated December 19, 2024, carries Dietitian at occupational series GS-0630 and Physical Therapist at GS-0633 under the heading "Hybrid Title 38 Positions", and 38 U.S.C. 7401(3), in the text in effect on September 14, 2026, names dietitians and licensed physical therapists among the positions appointed in the Veterans Health Administration. The dietitian qualification standard, VA Handbook 5005/154, effective October 14, 2022, applies "to all VHA Dietitians in the General Schedule (GS)-0630 occupational series" and revises the requirements in VA Handbook 5005, Part II, Appendix G20, "under VA's title 38 hybrid excepted service employment system"; it states that the full performance level for this qualification standard is the GS-11 grade level, and the assignments it prints run from GS-07 to GS-14. The physical therapist qualification standard, VA Handbook 5005/99, effective February 7, 2018, applies to "all VHA PTs employed in the GS-0633 series"; it states

that the full performance level for this qualification standard is the GS-12 grade level, and the grades it prints in its grade determinations run from GS-11 to GS-15. The rates attached to those grades are published in the Office of Personnel Management's Salary Table 2026-GS, effective January 2026, as annual rates by grade and step. State and local civil-service plans print both titles as well. Washington State's job classes and salaries listing, for non-represented state employees effective July 1, 2026, carries Dietitian 1 (class code 311E) and Dietitian 2 (311F) alongside Physical Therapist 1 (306T), Physical Therapist 2 (306U) and Physical Therapist 3 (306V), all in its health care category. The City and County of San Francisco's Department of Human Resources prints class 2624, Dietitian, and class 2556, Physical Therapist, each under a compensation plan effective July 1, 2026. Titles differ from plan to plan: the Texas State Auditor's Office classification plan, on Salary Schedule B for September 1, 2025 to August 31, 2027, prints Physical Therapist and, for the dietetics classes, Dietetic and Nutrition Specialist. Minnesota requires an equity exercise of its local employers by statute. Under sections 471.991 to 471.999 of the Minnesota Statutes, read in the 2025 edition, "every political subdivision of this state shall establish equitable compensation relationships between female-dominated, male-dominated, and balanced classes of employees in order to eliminate sex-based wage disparities in public employment in this state", and "A primary consideration in negotiating, establishing, recommending, and approving compensation is comparable work value in relationship to other employee positions within the political subdivision" (s. 471.992, subd. 1). Comparable work value "means the value of work measured by the skill, effort, responsibility, and working conditions normally required in the performance of the work" (s. 471.991, subd. 3), and "Every political subdivision shall use a job evaluation system in order to determine the comparable work value of the work performed by each class of its employees" (s. 471.994). The sections date from 1984 and stand in the 2025 edition, published electronically on October 19, 2025. Whether any such plan's equity process has moved the dietitian-to-physiotherapist relativity was not examined. Outside instruments of this kind there is no schedule for a statute to act on. National pay figures for the two occupations come from the Bureau of Labor Statistics' Occupational Employment and Wage Statistics, which publishes estimates of wages that employers report for their establishments, such as means and medians, not scheduled rates at a matched grade, so they measure a different quantity from the ratios read here; Report 4 in this series compares that source with the American Community Survey. This report says nothing about what the graduate-degree requirement for dietitian registration eligibility, which the Commission on Dietetic Registration states took effect on January 1, 2024, when "the minimum degree requirement for eligibility to take the registration examination for dietitians changed from a bachelor's degree to a graduate degree" (Commission on Dietetic Registration, n.d.), will do to either profession's pay.

Report 6

Wages, borrowing limits and the professional-degree list: what the 2026 classification means for entering US clinical dietetics

The Dietetics Workforce Reports, Report 6, version 1.1 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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Released. September 29, 2026, version 1.0. Version 1.1, October 22, 2026, appends two dated corrections and an update line (see Corrections); Canada's figures in Table 2 and Figure 2 and England's level in Table 2 changed, and no finding did.

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In brief

What it asks. Where does dietitian pay rank among clinical peers, and can that pay carry a required graduate degree under the federal loan limits in force from July 1, 2026?

What it finds. In May 2025 dietitians were paid least of seven clinical occupations. Of those whose entry credential is a graduate degree, dietetics is the only one the 2026 interim list leaves outside the higher borrowing limits, and in most cases modelled an illustrative graduate debt leaves a dietitian earning the national mean wage short.

What it adds. Studies of federal loan limits looked at expansions of borrowing. The 2026 change is a contraction, and their estimates do not run backward to it.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every reported number was regenerated by running the author's analysis code or read at the source that issues it, and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. The analysis code is deposited without the third-party and large input files it reads; Data availability says what the data record holds. A validity gate of 166 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Key findings

- **The pay ladder (May 2025).** In the Occupational Employment and Wage Statistics survey for May 2025, dietitians and nutritionists had a national mean annual wage of $77,130, the lowest of the seven clinical occupations compared and $10,170 below respiratory therapy ($87,300), whose entry credential is an associate's degree. The mean wages carry relative standard errors of 0.4 and 0.2 percent. In the same May 2025 release the ordering is the same within the hospital industry ($78,710 against $87,810) and on an hourly basis ($37.08 against $41.97).
- **Two other economies.** At the pay points read, dietitian pay was at or near registered-nurse pay in England (a ratio of 1.00, by band assignment) and Canada (0.96), against 0.76 in the United States. Neither comparator requires a master's degree to enter dietetics, so nothing here tests what a credential requirement does to pay.
- **The list.** The interim professional-degree designations Federal Student Aid published in 2026, read again on September 29, 2026, carry twenty-nine program codes, among them physical therapy, occupational therapy, speech-language pathology, audiology, athletic training, physician associate studies, graduate nursing and the clinical-psychology doctorates, and no code for dietetics; clinical social work, mental health counseling, genetic counseling, and orthotics and prosthetics are also absent. The designations are interim and may change as the litigation proceeds.
- **The financing arithmetic is conditional.** At an illustrative master's-tier principal of $161,000 and the national mean wage, the central case is negative by $1,712 a year at the $37,400 national living budget and by $7,512 at the $43,200 major-metropolitan budget; under the more representative loan composition, residual income at the major-metropolitan budget is positive only in the lowest-cost in-state public tier. The private tranche is produced by the $20,500 annual federal limit; at the professional-degree limits both public tiers would need no private credit. The principal is the author's illustrative assumption; the living budgets are derived from the Consumer Expenditure Survey for 2024.

Plain-language summary

Since 2024, becoming a registered dietitian nutritionist requires a graduate degree. From July 1, 2026, students in most graduate programs can borrow at most $20,500 a year from the federal government; students in programs on a federal professional-degree list can borrow $50,000. Anything above that usually comes from private loans, which carry no income-based payments and no loan forgiveness. Dietetics is not on the interim list as read on September 29, 2026; physical therapy, occupational therapy, speech-language pathology and graduate nursing are.

This report asks what dietitians earn next to those professions and whether that pay can carry the debt. In the federal wage survey for May 2025, dietitians were paid least of seven clinical occupations, $77,130 a year on average, less than respiratory therapists, who need a two-year degree. In England and Canada dietitians earn at or near what nurses earn; in the United States, about three-quarters. At the average wage, an illustrative graduate debt leaves a dietitian short once tax, living costs and loan payments are met, in most cases modelled.

The sentence to repeat: dietitians are paid least among their clinical peers, and they finance a graduate degree under lower federal loan limits than their graduate-entry peers.

Abstract

Background. Since January 1, 2024, a graduate degree has been required to sit the registration examination for the registered dietitian nutritionist credential. Since July 1, 2026, federal law has capped graduate borrowing at $20,500 a year and $100,000 in total for programs outside the professional-degree definition, against $50,000 and $200,000 inside it. Studies of federal loan limits have examined expansions of borrowing; the 2026 change is a contraction.

Objective. To describe where dietitian pay sits among clinical peers and whether that pay can carry a graduate degree under the 2026 limits.

Methods. A descriptive analysis of the Occupational Employment and Wage Statistics survey for May 2025, nationally, within the hospital industry and within states; dietitian and registered-nurse pay points in England and Canada; and a standard-amortization model of residual income at an illustrative master's-tier principal of $161,000, with sensitivity analysis.

Results. Dietitians and nutritionists had a national mean annual wage of $77,130 in May 2025, the lowest of the seven clinical occupations compared and $10,170 below respiratory therapy, whose entry credential is an associate's degree; the ordering held within hospitals. Dietitian pay was at or near registered-nurse pay in England and Canada, against 0.76 of it in the United States. At the national mean wage the central case was short by $1,712 a year at the $37,400 national living budget and by $7,512 at the $43,200 major-metropolitan budget; the private tranche is produced by the $20,500 annual federal limit. Dietetics is absent from the 2026 interim professional-degree list that carries its graduate-entry clinical peers, as are several other master's-entry fields.

Conclusions. Dietitian pay, at the bottom of its clinical peer group, does not carry an illustrative graduate debt in most cases modelled under the 2026 limits. Why dietetics is off the list is not answered by these records.

Keywords: dietetics workforce; occupational wages; graduate student borrowing; professional-degree classification; health workforce financing; medical nutrition therapy

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of the profession analyzed in this report. He owns Vitae Arete LLC, which publishes this report series and offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce, including on dietitian pay relative to other health professions, and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; this report describes federal instruments that bear on those proposals, including the borrowing limits and the eligibility rules for loan forgiveness, and it does not evaluate the proposals or supply evidence that they should be adopted. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He repays federal student loans and is enrolled in Public Service Loan Forgiveness, which this report discusses. Apart from those

loans and his employment by AdventHealth, which sponsors that internship and operates AdventHealth University, which offers programs in physical therapy and nursing, he has no financial relationship with any lender, university, or accredited program in any of the professions compared here, and has received no payment from any third party in connection with this work. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this report (see How this report was checked). He is credentialed by the Commission on Dietetic Registration, which this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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Introduction

This report asks what the 2026 federal professional-degree classification does to the arithmetic of entering clinical dietetics in the United States: where dietitian pay sits on the clinical pay ladder, how a master's-tier debt is financed and repaid under the borrowing limits in force from July 1, 2026, and which programs the list carries. It is a descriptive report built from public federal records.

In June 2026 a federal court preliminarily set aside and stayed part of the U.S. Department of Education's narrowed definition of a professional degree, and Federal Student Aid published an interim list of the programs that qualify under the restored definition. Dietetics is not on that list. The consequence is financial and immediate. Under Public Law 119-21 (139 Stat. 72, July 4, 2025), the reconciliation act commonly called the One Big Beautiful Bill Act, a program on the list carries a $50,000 annual and $200,000 aggregate federal graduate borrowing limit; a program off it carries $20,500 a year and $100,000 in total, and anything above that is met with private credit, which is not eligible for income-driven repayment or federal loan forgiveness. The clinical professions closest to dietetics, physical therapy, occupational therapy, speech-language pathology and graduate nursing programs at the master's and doctoral level, are on the list (Federal Student Aid 2026b; 34 C.F.R. §668.2). Each of these was verified at its issuing source on September 15, 2026. The limits sit at 20 U.S.C. 1087e(a)(4), added by section 81001 of that Act, and apply beginning July 1, 2026; the statute defines a professional student by reference to the professional-degree definition at 34 C.F.R. 668.2 as that section stood on July 4, 2025. The designations Federal Student Aid published are interim, apply for the duration of the court's stay, and may change as the litigation proceeds, so their status is given here as of September 29, 2026, when the list was read again.

Two decisions made by different hands now bear on the same entrant. Since January 1, 2024, the Commission on Dietetic Registration has required a graduate degree to sit the registration examination, which raised what entry to the profession costs (Commission on Dietetic Registration 2024). In 2026 federal student-aid law placed that same credential outside the category that borrows at the professional limits. This report describes the arithmetic those two decisions produce for an entrant: what the occupation is paid, what the credential is assumed to cost, and what is left after repayment. It does not describe how either decision was made.

The pay comparison is the first thing to establish, because the financing arithmetic runs on it. In the Occupational Employment and Wage Statistics survey for May 2025, the most recent national benchmark, dietitians and nutritionists were paid less than the clinical occupations compared here, including respiratory therapy, whose entry credential is an associate's degree (Bureau of Labor Statistics 2026a). A wage at that level, set against a graduate-tier debt, is what makes the repayment result conditional rather than comfortable: at a major-metropolitan budget the arithmetic clears only in the lowest-cost in-state public tier. The May 2025 estimates, released May 15, 2026, were still the most recent Occupational Employment and Wage Statistics release when this report was written. A query of the Bureau's public data interface on September 15, 2026, returned May 2025 as the only reference period for all eighty-four series used here, and the survey's current news release page carried the May 2025 estimates at its most recent public capture, August 30, 2026.

Who this arithmetic falls on can be stated on one basis and one vintage. In the Current Population Survey annual averages for 2025, 91.7 percent of dietitians and nutritionists were women; speech-language pathology was 97.3 percent, occupational therapy 92.4 percent, registered nursing 87.3 percent, physical therapy 66.9 percent, respiratory therapy 65.2 percent and chiropractic 31.1 percent (Bureau of Labor Statistics 2026c). Speech-language pathology and occupational therapy are both on the list. Each of those shares describes the people employed in that occupation as counted in a household survey, which is a wider group than the people who hold the profession's credential. Dietetics is therefore among the most feminized occupations in this peer set and is the lowest paid of them. That is a distributional fact about who is affected. It is not evidence that the composition of the occupation bore on the classification decision, and this report does not test that question.

The comparison set used throughout is fixed in advance and stated here, because a peer group chosen after an outcome is known proves nothing. The occupations compared are those with a shared hospital clinical footprint, employed in the same industry, chiropractic in small numbers: physical therapy, occupational therapy, speech-language pathology, registered nursing, respiratory therapy and chiropractic, alongside dietetics (Table 1). They were selected for the wage comparison, not for their position on any list. Dietetics is not the only master's-entry clinical field absent from the professional-degree designations: clinical social work, mental health counseling, genetic counseling, and orthotics and prosthetics are also absent. What distinguishes dietetics within the comparison set is that the graduate-entry clinical peers it is measured against are present on the list while it is not. A search of the announcement on September 29, 2026, found no code for social work (44.0701 or 51.1503), mental health counseling (51.1508), genetic counseling (51.1509), orthotics and prosthetics (51.2307) or dietetics (51.3101 or 51.3102). Counseling is not treated uniformly: counseling psychology is on the list, at 42.2803, for the Doctor of Psychology (Psy.D.).

Three questions structure what follows, and each is answered from a named public record.

1. Where does dietitian pay sit among the clinical occupations compared, in unadjusted national means and within the hospital industry (Table 1, Figure 1)?
2. How does dietitian pay compare with registered-nurse pay at the pay points read in two other high-income economies (Table 2, Figure 2)?
3. Under the borrowing limits in force from July 1, 2026, what residual income does standard amortization of an illustrative master's-tier principal leave at the national mean wage, across the budgets, rates and program tiers modelled (Tables 3 and 4, Figure 3)?

Hypotheses. The three questions are descriptive and the report tests no hypothesis. The residual-income calculation in the third is an illustration under stated assumptions, not a forecast.

Four questions this report does not answer are named here so that no later section appears to have answered them: why dietetics is not on the list; what any profession's representative body filed, said or chose not to do; whether the composition of an occupation bore on the decision; and what the 2026 limits will do to the number of people who enter the profession, which cannot be measured until cohorts have entered repayment. The first three are documentary questions about the rulemaking record, which Report 7 in this series, released the same day, takes up.

Two decisions, and the terms this report uses

What is already known about graduate borrowing limits. The effects of graduate borrowing limits on enrollment and on who enrolls have been studied, and this report does not estimate those effects itself. Black, Turner and Denning (2023) study the 2006 introduction of the Graduate PLUS program, which effectively uncapped federal graduate borrowing, and find that the added federal credit raised borrowing and shifted students' loans from private to federal debt without improving access to existing programs overall or for underrepresented groups, and without a significant increase in constrained students' persistence or degree receipt; among programs where more students had exhausted their annual federal eligibility before the change, federal borrowing and prices both rose. Denning and Turner (2023), using administrative records for graduate students entering public and nonprofit universities in Texas, find no effect of that additional liquidity on underrepresented students' access to high-earnings graduate programs. Kelchen (2020), using program-level data from 2001 to 2016 for business and medical schools, finds little consistent evidence that those schools raised tuition or living expenses in response to the same 2006 increase. All three examine an expansion of borrowing limits; the change described here is a contraction that takes effect on July 1, 2026, and these published estimates do not run backward to it. The medical-education literature has modelled debt-to-income ratios as an influence on career choice (Greysen, Chen, and Mullan 2011; Rohlfing et al. 2014; Youngclaus and Fresne 2020); those studies concern physicians, whose debt and income are both far larger, and are used here only as a comparative frame for a ratio, never as a threshold. The allied-health workforce literature, most developed for nursing, describes how staffing standards and pay interact with supply (Aiken et al. 2014; Buerhaus et al. 2017).

Terms coined or borrowed in this report, defined at first use. *Clinical pay ladder* means the ordering of the seven compared occupations by mean annual wage in one release of one survey; it is a description of that ordering and nothing more. *Credential tier* means the credential currently required to enter an occupation, not the credentials held by the people now working in it; the two differ, and the difference is stated wherever it matters. This report does not use the term wage inversion. In the literature that term describes an inversion inside an employer or a pay structure, where less qualified or less senior workers are paid more than more qualified ones; what is described here is a difference between occupations, which is a different thing.

The two decisions arrived in a particular order. The graduate requirement took effect on January 1, 2024; the borrowing limits took effect on July 1, 2026. The wages read below are for May 2025 and describe a workforce that mostly entered under the earlier bachelor's route, so they show the position from which the profession starts rather than any result of the 2024 requirement. Whether raising the entry credential changes pay, and over what period, is not tested here.

The professional-degree definition and the court's stay, how United States graduate borrowing works for readers outside the country, and the distinction between licensing and certification are set out in the Supplementary appendix.

How the master's requirement came about

The graduate requirement is the near end of a long change in how the profession is entered. The bachelor's-plus-internship pathway gave way to a required supervised-practice credential, and the Commission on Dietetic Registration announced that, effective January 1, 2024, a graduate degree would be required to sit the registration examination (Commission on Dietetic Registration 2024). What the profession did or did not secure alongside that requirement, and why, is a question about the profession's own deliberations that this report does not examine.

One consequence of the timing is worth stating plainly, because it is arithmetic rather than interpretation: a student who first borrows for a dietetics graduate program on or after July 1, 2026, meets both changes at once, the graduate-degree requirement and the new borrowing limits.

Data and methods

Study design

This is a descriptive report on public federal records, read at the point where three changes meet: the graduate-degree requirement for the registered dietitian nutritionist credential, effective January 1, 2024; the borrowing limits effective July 1, 2026; and the 2026 interim professional-degree designations. It combines (i) a cross-sectional comparison of federal occupational wage data across Standard Occupational Classification codes; (ii) the same comparison within the hospital industry; (iii) a comparison of dietitian and registered-nurse pay points in two other high-income economies, adjusted for purchasing power; and (iv) a standard-amortization calculation of residual income under the post-2026 limits, with sensitivity analysis. No new primary data were collected. No causal claim is made, and no claim is made about the process that produced any of the

three changes. The credential tier recorded for each occupation is the current entry requirement, not the credentials held by the measured workforce; the wage structure read here predates the 2024 requirement. The study used publicly available aggregate secondary data and is not human-subjects research.

Data sources

Occupational Employment and Wage Statistics, May 2025 release. National and hospital-industry (North American Industry Classification System code 622100) mean annual wages and employment were extracted for SOC codes 29-1031 (Dietitians and Nutritionists), 29-1122 (Occupational Therapists), 29-1123 (Physical Therapists), 29-1126 (Respiratory Therapists), 29-1127 (Speech-Language Pathologists), 29-1141 (Registered Nurses), and 29-1011 (Chiropractors) (Bureau of Labor Statistics 2026a). The May 2025 release (released May 15, 2026) is the most recent national benchmark at the time of analysis.

Credential registry and pipeline. The registry counts and accredited-program enrollment read for context are described, with their dates, in the Supplementary appendix.

Loan architecture. The provisions of the One Big Beautiful Bill Act (Pub. L. 119-21), the end of Grad PLUS borrowing, the $100,000 aggregate federal graduate limit ($200,000 professional), termination of new income-driven repayment, and the new Repayment Assistance Plan, take effect July 1, 2026 (One Big Beautiful Bill Act of 2025). The professional-degree classification governing which cap applies is set, for now, by the Department's Reimagining and Improving Student Education final rule as partly stayed by the June 2026 court order, and by the interim designations issued under it (U.S. Department of Education 2026; 34 C.F.R. §668.2).

International wages. Dietitian and registered-nurse pay points were drawn from the National Health Service (NHS) Employers Agenda for Change pay scales for England and the Employment and Social Development Canada Wages file (National Occupational Classification 31121 and 31301), converted using 2024 Organisation for Economic Co-operation and Development (OECD) purchasing-power parities (NHS Employers 2026; Employment and Social Development Canada 2025; OECD 2025). Each comparator is included on a stated ground: a national pay instrument that carries both occupations, or a national wage survey that measures both on one basis. Applying that rule on September 15, 2026, retained two comparators and dropped two. England is retained on the first ground: the Agenda for Change pay scales for 2026/27, published by NHS Employers on February 12, 2026 and effective from April 1, 2026, set banded pay points that both occupations are matched to, and the NHS national job profiles carry a Band 6 profile for dietetics and for nursing. The figure read there is a point on a pay scale, the Band 6 entry step of £39,959. The scale was read on October 2, 2026. Canada is retained on the second ground: the Wages file published by Employment and Social Development Canada in November 2025 reports a national median hourly wage for both occupations on one basis from the Labour Force Survey, C$41.63 for dietitians and nutritionists (National Occupational Classification 31121) and C$43.27 for registered nurses and registered psychiatric nurses (31301), for a 2023 to 2024 reference period. The file was read on October 2, 2026. The figure read there is a survey median, annualized at 2,080 hours to match the convention the United States survey uses. Australia was dropped because public-hospital pay there is set by state and territory instruments rather than by one national instrument carrying both occupations, so the row cannot meet the rule. Germany was dropped because the grading rules that assign each occupation to a pay group could not be read at the issuing body, and because the pay groups cited for nursing are superseded, nursing staff under that agreement being paid on a separate nursing table. Pay points were converted at 2024 OECD purchasing-power parities for gross domestic product, 0.664 for the United Kingdom and 1.15 for Canada, which agree with the World Bank parities for the same year to within 0.05 percent.

Credential cost. The amortization model uses a financed principal of approximately $161,000, made up of graduate tuition of about $90,000, supervised practice of about $35,000 and a living-cost loan of about $36,000, with sensitivity at $120,000 and $200,000. **The principal and its three components are the author's illustrative assumptions.** They were constructed from published program cost ranges and are not drawn from a single source, and they are not measured dietetics program costs; the two living budgets used below are not assumptions and are derived from the Consumer Expenditure Survey for 2024 (Bureau of Labor Statistics, Consumer Expenditure Survey 2024, Tables 1400 and 2400); Tables 3 and 4 show the result across program tiers so that a reader can substitute their own figures. Each component was tested against primary data for this release, and one of them changed. The living budgets are no longer assumptions. They are a basic-needs subset of the Consumer Expenditure Survey for 2024 (Bureau of Labor Statistics, 2024 data), summing housing, food, transportation, healthcare, apparel and services, and personal care for a one-person consumer unit in Table 1400, which is $37,407 a year, or 76.7 percent of that unit's total annual expenditure of $48,794, and scaling that total by the expenditure ratio of areas of 2.5 million people and more in Table 2400, a factor of 1.156, which is $43,241. Rounded for reporting those are the $37,400 and $43,200 used here. The pair is reconciled to the financing model deposited with the entry-cost report in this series, which derives them from the same six categories; the two copies of that model were confirmed byte-identical on September 16, 2026 and again on October 6, 2026, when both also matched the copy in that report's data record; the record of the second check is in version 1.1 of this report's data record. That report does not itself print a living budget. Every cell of Tables 3 and 4, the counts of positive cells, Figure 3 and the residuals quoted in the text were recomputed at those budgets. The round $35,000 and $42,000 budgets used in the earlier version are retired. The principal and its three components stay the author's illustrative assumptions. For the tuition component, the 129 institutions that awarded a master's degree in the dietetics code family in 2024 published graduate tuition and required fees for the 2023-24 academic year with a median of $12,483 at the lowest rate an institution publishes and $21,182 at the out-of-state rate (Integrated Postsecondary Education Data System, academic-year charges for 2023-24, the most recent posted as of September 15, 2026, joined to completions for 2024); the $90,000 component implies $45,000 a year, which is at or above the published rate at five of those institutions on the lowest rate and seven on the out-of-state rate, so it sits near the top of the published distribution rather than at its centre. Those are institution-wide graduate averages rather than the price of a dietetics program, and published rates rather than net price, so they benchmark the component and do not replace it. A search of the accrediting body's public program directory on September 15, 2026, read the first page of results, ten listings, for two of its eight program types, didactic programs and dietetic internships, and found no cost, tuition or fee amount in any listing field. The dietetic internships are the supervised-practice programs, so the supervised-practice component could not be sourced from

the directory and remains an assumption. For scale, federal loan debt across the twenty dietetics master's programs that report it had a median of $36,855, and $39,247 weighted by the 896 borrowers behind those programs, for completers pooled across 2018-19 and 2019-20 (College Scorecard, released June 10, 2026); that measure covers federal borrowing before the 2026 limits and does not price private credit.

Analyses

National mean wages were tabulated across the seven SOC codes by credential tier (associate's, bachelor's, master's, doctoral) in two specifications: unadjusted national means and the hospital subset, North American Industry Classification System code 622100, the single industry that employs all seven occupations, chiropractic in small numbers. For each peer economy, the dietitian and registered-nurse pay points read, a point on a national pay scale in England and a national survey median in Canada, were converted to US dollars using 2024 OECD purchasing-power parities and the dietitian-to-registered-nurse ratio compared across economies; because a single national purchasing-power parity scales both wages, the ratio is invariant to that conversion, and the comparison is descriptive institutional context rather than a test of a global-feature claim.

Annual debt service was computed with the standard fixed-rate amortization formula, monthly payment = P × [r(1 + r)^n] / [(1 + r)^n − 1], over a ten-year term. In words: P is the amount borrowed, r is the interest rate for one month, which is the annual rate divided by twelve, and n is the number of monthly payments, which is 120 over ten years. The formula gives the fixed monthly payment that repays the amount borrowed, with interest, by the end of the term; twelve of those payments make the annual figure used here. The base case sets P at $161,000 at a 9 percent blended rate. Because the federal tranche is eligible for the income-based Repayment Assistance Plan while the private tranche is not, applying standard amortization to the whole principal is a deliberate upper-bound case; the realistic composition is modelled separately in Table 4, and applying the income-based plan to the entire principal, were it eligible, gives the lower bound. Residual income is the wage less debt service, less a tax proxy, less the living budget. Sensitivity varies the tax proxy, the living budget ($37,400 nationally and $43,200 in areas of 2.5 million people and more, derived from the Consumer Expenditure Survey 2024, Tables 1400 and 2400), the interest rate (8, 9 and 10 percent) and the principal ($120,000, $161,000 and $200,000). At 2026 federal parameters an unmarried filer taking the standard deduction owes 18.2 percent of gross at this wage in federal income tax plus payroll tax, so the 22 percent proxy sits 3.8 points of gross above that liability and the 28 percent proxy 9.8 points above it; whether the 28 percent proxy also exceeds state liability was not tested here. Feasibility is computed at the occupation-wide mean wage; a new entrant typically earns below that mean, so the residuals are if anything generous to the entering cohort. Every cell regenerates from the deposited model, rerun on September 16, 2026, at the sourced living budgets of $37,400 and $43,200 (Bureau of Labor Statistics, Consumer Expenditure Survey 2024, Tables 1400 and 2400). Checked against 2026 federal parameters, an unmarried filer taking the standard deduction owes $8,139 in federal income tax at this wage (Internal Revenue Service, Revenue Procedure 2025-32) and $5,900 in payroll tax (Internal Revenue Service, Publication 15, 2026), together $14,039, or 18.2 percent of gross. The 22 percent proxy therefore sits 3.8 points of gross above federal income tax plus payroll tax, a margin a state income tax of about that size would consume, and the 28 percent proxy sits 9.8 points above it. Whether the 28 percent proxy also exceeds state liability in nearly every state was not tested here.

Because dietetics is absent from the professional-degree designations, a dietetics graduate program borrows against the $20,500 annual and $100,000 aggregate limits rather than the $50,000 annual and $200,000 aggregate limits that apply to programs on the list, and anything above the federal amount is met with private credit that is ineligible for the Repayment Assistance Plan, for income-driven repayment and for forgiveness. Table 4 decomposes financing into a federal tranche of approximately $71,000, which is the $20,500 annual Direct Unsubsidized limit over the roughly three-and-a-half-year graduate-plus-supervised-practice sequence and is net of origination fees, and a private tranche carrying a tier annual percentage rate. **It is the annual limit, not the $100,000 aggregate cap, that binds over a sequence this short**, so the private tranche in every row is measured from $71,000 (Federal Student Aid 2026a; Sallie Mae 2026; College Board 2025). Recomputed at the professional-degree limits over the same sequence, federal capacity is $173,150 rather than about $71,000, because $50,000 a year over three and a half years stays below the $200,000 aggregate just as $20,500 a year stays below the $100,000 aggregate, which a graduate sequence reaches only in its fifth year. On those limits the in-state and out-of-state public tiers carry no private borrowing at all and each returns residual income of $11,562 at the major-metropolitan budget of $43,200, against positive $5,634 and negative $4,137 as financed; the private or top-cost tier carries $36,850 rather than $139,000 and turns positive by $5,719; the private high-cost tier carries $86,850 rather than $189,000 and remains negative by $2,794. One tier of the four is negative at that budget under the professional limits, against three of the four as financed. Because the Repayment Assistance Plan payment is a share of income rather than of balance, these annual figures show the effect on yearly cash flow and not on how long repayment runs. The rate and the fee behind that figure are those in force for the cohort modelled: a fixed 8.07 percent on graduate Direct Unsubsidized loans first disbursed in the 2026 to 2027 award year, and a loan fee of 1.057 percent deducted from each disbursement, which reduces $71,750 of gross entitlement to $70,992 (20 U.S.C. 1087e(b)(8)(B); Federal Student Aid, Electronic Announcement GENERAL-26-28, May 13, 2026). Supervised practice is financed inside that federal tranche where it is a component of the accredited degree program, in which case its costs sit in the program's cost of attendance and are borrowed against the same annual limit (20 U.S.C. 1087ll; 34 C.F.R. §668.8). Where supervised practice is instead taken as a stand-alone internship that awards no degree, it is federally loan-eligible only if the institution offers it as an eligible program, which for a non-degree program means at least a one-academic-year course of study leading to a recognized credential, an academic year being at least thirty weeks of instructional time (34 C.F.R. §§668.8 and 668.3). The model assumes the first route. The accredited-program directory of the Accreditation Council for Education in Nutrition and Dietetics was searched on September 15, 2026, for a published count of programs by route, and none was found, so no share is stated here.

Several alternative readings of the pay comparison were addressed by design. *Industry composition.* If dietitians sorted into lower-paying industries while the comparison occupations sorted into higher-paying ones, an unadjusted gap could reflect industry rather than occupation; the hospital-industry subset shows whether the ordering holds within a single industry in which all seven occupations are well represented. *Geographic variation.* National means average across states; state-stratified comparisons at both ends of the employment distribution, and a state-fixed-effects log-wage model on a twenty-state panel, show whether the gap persists within states The panel is the twenty states at the top and bottom of the dietitian employment distribution, six occupations each, on the May 2025 estimates: 120 state and occupation cells carrying 57.8 percent of national dietitian employment. Within states, dietitian mean wages sat 12.6 percent below respiratory therapy (95 percent interval 15.1 to 10.0 percent below) and 18.8

to 25.4 percent below the master's-entry peers, every interval excluding zero. Weighting each state by its dietitian employment gives 13.5 percent below respiratory therapy (17.3 to 9.4 percent below). Intervals are clustered on the twenty state clusters and computed by a wild cluster bootstrap with Webb weights, a method suited to a cluster count this small. The panel is descriptive: it shows that the ordering holds within states, not that geography is ruled out, and it holds nothing else constant. The smallest state margins are South Dakota at $690, Vermont at $4,360 and Montana at $5,100; against the relative standard errors the survey publishes for those same May 2025 estimates, the South Dakota and Vermont margins are within sampling error and the Montana margin is not.. *Worker preferences.* An account in which entrants accept the pay because the work is rewarding is not tested here; this report describes a pay structure, not a preference structure. *Credential heterogeneity.* The occupation code includes both credentialed dietitians and people working as nutritionists without the credential, which this survey cannot separate; the direction of any bias from that mixing is undetermined. *Comparability across countries.* Pay points and survey statistics are not the same construct, so the international comparison is read as context and not as a test. *Hours.* The survey publishes each occupation's annual mean as the hourly mean multiplied by 2,080 hours, so the ladder is hours-standardized and is identical on an hourly basis; it prices an hour of clinical work, not hours worked.

Findings

The clinical pay ladder in national data

Table 1 reports the pay ladder in unadjusted national means and in the hospital-industry subset; the ordering of the six occupations whose hospital mean the table prints is the same in both. In the May 2025 release dietitians and nutritionists earned a national mean of $77,130, below every doctoral- or master's-entry peer (physical therapy $105,280; occupational therapy $101,280; speech-language pathology $98,170), below registered nursing at $101,420, whose entry credential is an associate's or bachelor's degree, and below respiratory therapy at $87,300, whose entry credential is an associate's degree. Respiratory therapy exceeded dietitian pay by $10,170 a year. In the hospital subset of the May 2025 release the dietitian mean was $78,710, $1,580 above the national mean, while hospital respiratory therapy was $87,810, $9,100 above it, so the ordering is not an artifact of lower-paying non-hospital employment (Figure 1). Real wages over 2015 to 2025 are reported in the Supplementary appendix.

[Table 1 about here]

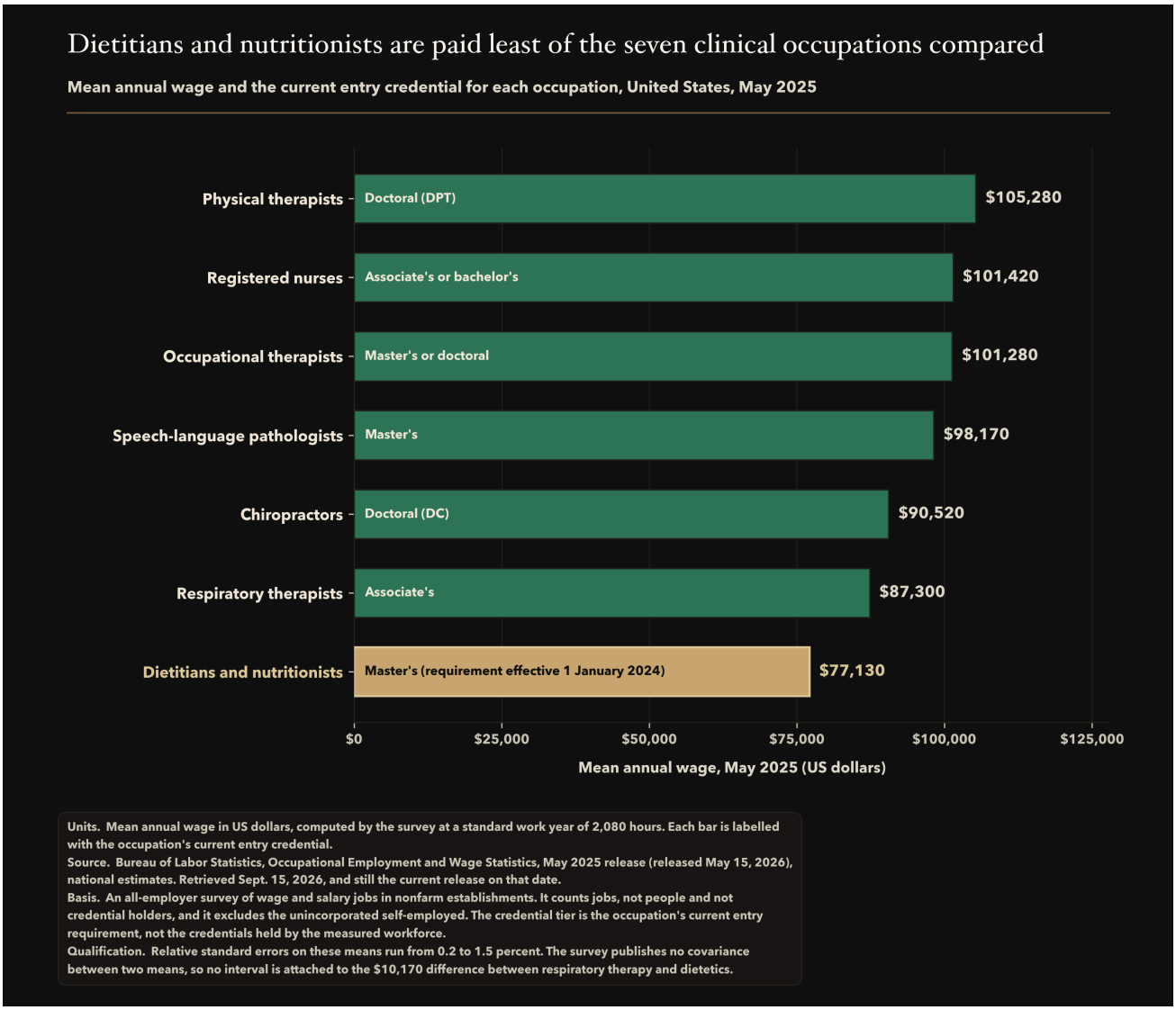


Figure 1. Dietitians and nutritionists are paid least of the seven clinical occupations compared.

Dietitian and registered-nurse pay in two other economies

Table 2 reports the dietitian-to-registered-nurse pay ratio at the points read, adjusted for purchasing power. The United States ratio of 0.76 is below both comparators: 0.96 (Canada) and 1.00 (England). In England both occupations sit on the same banded national structure and are read at the same band, so the ratio of 1.00 is parity by assignment rather than a measured similarity (NHS Employers 2026). The underlying quantities differ: a pay-scale point in England, a national median in Canada, and an employer-reported survey mean in the United States for May 2025. In neither retained comparator does the entry route to dietetic practice require a master's degree, so nothing here tests what a credential requirement does to pay; what it shows is that dietitian pay sits at or near registered-nurse pay in these two economies at the points read, and below it in the United States (Figure 2). Each retained pay point was verified at the instrument that issues it on September 15, 2026, except that the Canadian file and England's pay scale were read on October 2, 2026. The England figures are the Band 6 entry step of the Agenda for Change pay scales for the 2026/27 pay year, published on February 12, 2026, and both occupations are matched to that band, so the ratio of 1.00 is parity by band assignment and not a measured similarity. Both occupations also enter at Band 5, so Band 6 is an experienced grade for each rather than an entry grade. The Canadian figures are national median hourly wages for the 2023 to 2024 reference period, published by Employment and Social Development Canada in its November 2025 Wages file and drawn from the Labour Force Survey; that file publishes a low, median and high wage but no standard error, so no interval can be attached to either median. In both comparators the entry route to dietetic practice includes an undergraduate degree, three or four years in the United Kingdom or a two-year postgraduate course for a graduate of a related science degree, and in Canada an undergraduate degree with supervised practical training, so neither requires a master's degree to enter dietetics and nothing here tests what a credential requirement does to pay.

[Table 2 about here]

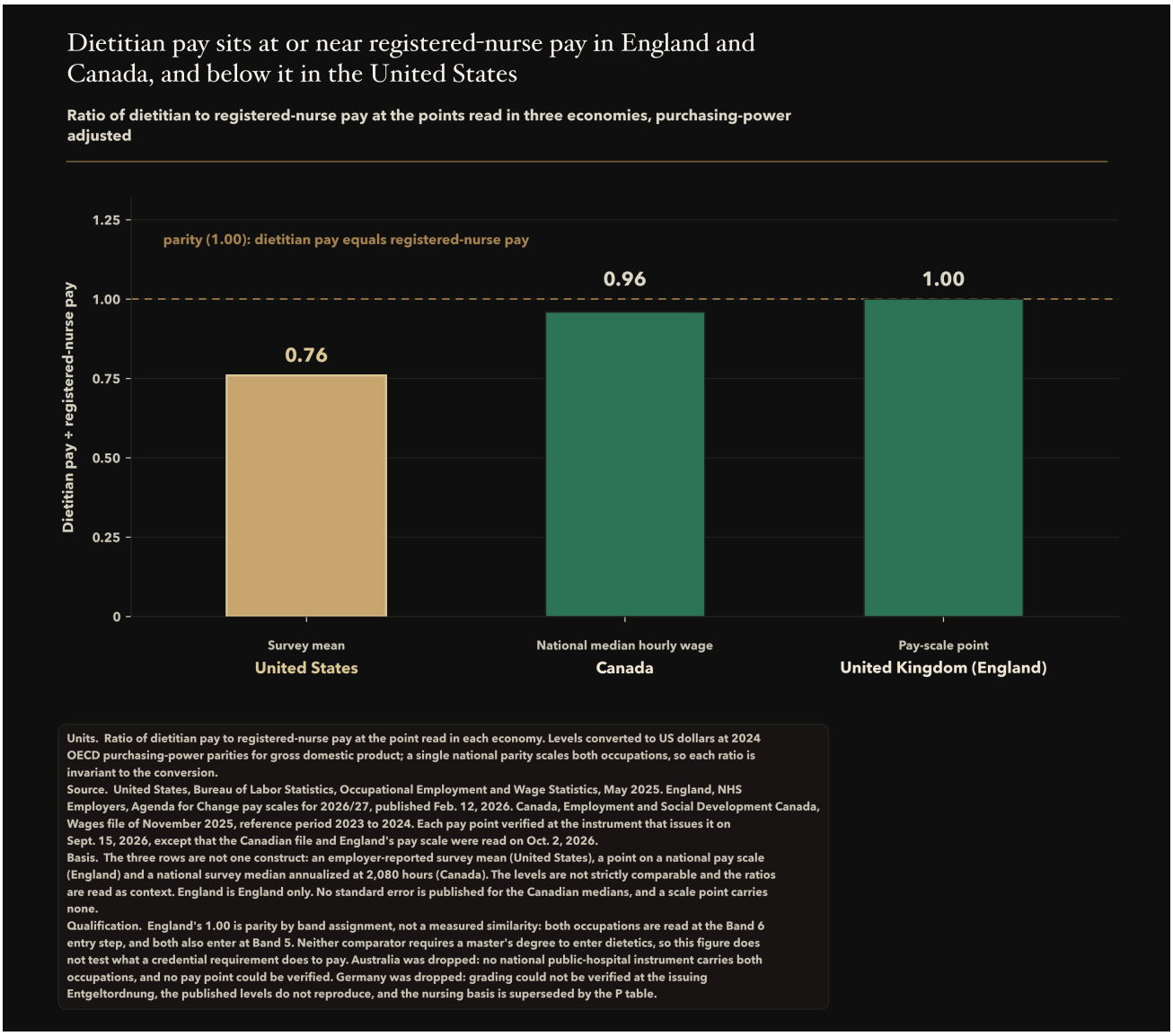


Figure 2. Dietitian pay sits at or near registered-nurse pay in England and Canada, and below it in the United States.

Financing arithmetic

Table 3 reports the standard-amortization sensitivity matrix for the $161,000 illustrative principal at the $77,130 May 2025 mean wage: twelve cells, two tax proxies by two living budgets by three interest rates. In the central case (9 percent, the 22 percent tax proxy, the $37,400 national budget) residual income is negative by $1,712; at the $43,200 major-metropolitan budget it is negative by $7,512. Under the 28 percent proxy both fall further, to −$6,340 and −$12,140. At their point estimates, no cell of the twelve is positive at this principal. At a $200,000 principal all twelve cells are negative; at $120,000, four of the twelve are positive. Because these cells apply standard amortization to the whole principal, they are an upper-bound case; the composition modelled in Table 4, which carries the federal tranche on the income-based plan, is the more representative one (Figure 3). All three matrices regenerate from the deposited model, rerun on September 16, 2026, at the sourced living budgets: at their point estimates, none of the twelve cells is positive at the $161,000 principal, four of the twelve are positive at $120,000, and none of the twelve at $200,000. The four positive cells at $120,000 all sit at the $37,400 national budget, at 8 percent under both tax proxies and at 9 and 10 percent under the 22 percent proxy.

[Table 3 about here]

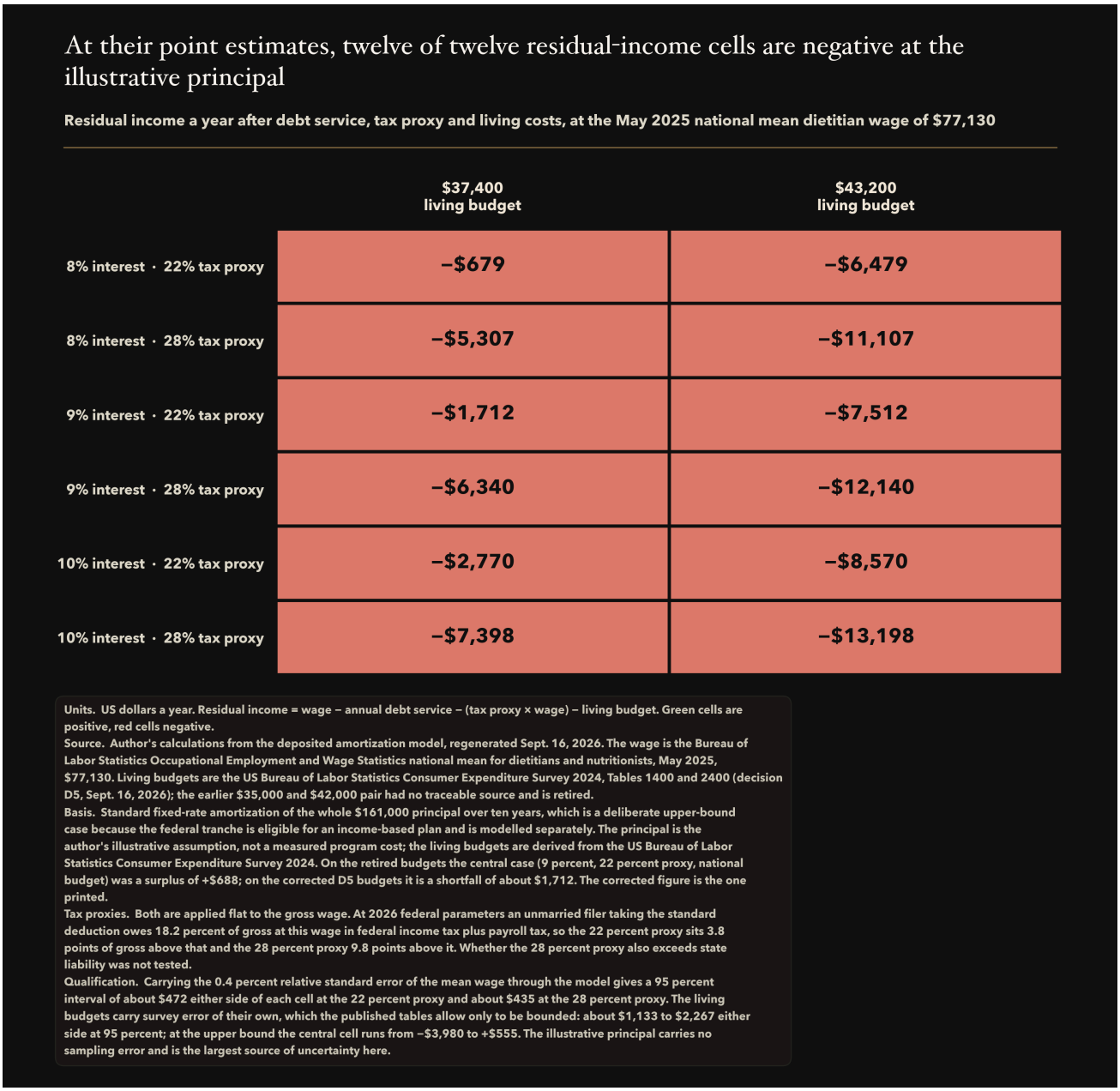


Figure 3. At their point estimates, twelve of twelve residual-income cells are negative at the illustrative principal.

Table 4 reports residuals under the more representative composition, with the federal tranche on the income-based Repayment Assistance Plan and the private tranche on standard terms, at the $43,200 major-metropolitan budget: positive only in the lowest-cost in-state public tier (+$5,634), and negative as the private tranche grows, from −$4,137 (out-of-state public) to −$19,679 (private high-cost). At the $37,400 national budget the first two tiers are positive (+$11,434 and +$1,663). Applying the income-based plan to the entire principal, were it federally eligible, would give +$11,562 at the major-metropolitan budget. The result therefore turns on the size of the private tranche rather than on the federal repayment terms. Because Public Service Loan Forgiveness attaches only to federal Direct loans, the same line governs access to forgiveness for service in nonprofit and public health care settings: the private tranche is ineligible. Under the professional-degree limits the same four tiers carry private tranches of nothing, nothing, $36,850 and $86,850 rather than $39,000, $99,000, $139,000 and $189,000, and their residuals at the $43,200 major-metropolitan budget are $11,562, $11,562, $5,719 and negative $2,794. On the private term, one lender's graduate loan disclosure current on September 15, 2026, offers repayment over ten years and over fifteen; at fifteen years the out-of-state public tier moves from negative by $4,137 to negative by $1,204 and the private high-cost tier from negative by $19,679 to negative by $14,216, so a longer term reduces the shortfall in the higher tiers without closing it.

[Table 4 about here]

Discussion

What these data show, and what they do not

The hospital subset shows that the ordering is not produced by industry composition, and the state-stratified analyses show that the ordering persists within states. Credential heterogeneity inside the occupation code is a genuine limitation: the wage survey and the registry cannot be linked, so the direction in which conditioning on credential holders would shift the comparison is undetermined. Sex composition cannot by itself account for the ordering: speech-language pathology and occupational therapy are more feminized still on the same basis and are paid above the respiratory-therapy benchmark. Mechanisms this design cannot test, and which remain open, include the demographic composition of the workforce, pay setting before the 2024 requirement, and employer substitution between dietitians and adjacent providers. The debt-to-income ratio at the national mean wage and the $161,000 illustrative principal is about 2.09, and across the Table 4 tiers it runs from 1.43 to 3.37, on total debt at origination against the gross annual mean wage. That sits at or above the 1.5 to 2.0 range associated with career-choice effects in the medical-education literature, but that literature concerns physicians with far larger debt and income, and non-survey analyses report weaker or null associations once expected income is controlled, so the ratio is offered as a comparative frame and not as a behavioral threshold (Greysen, Chen, and Mullan 2011; Rohlfing et al. 2014).

Being absent from the list

When the court preliminarily stayed part of the Department's narrowed definition and Federal Student Aid issued its interim list, professional status extended to the master's- and doctoral-level clinical programs adjacent to dietetics: physical therapy, occupational therapy, speech-language pathology, audiology, athletic training, physician associate studies, graduate nursing at the master's and doctoral level including nurse anesthesia, and the clinical-psychology doctorates (Federal Student Aid 2026b). Dietetics was not among them. Among the compared occupations entered through a graduate program, dietetics is the only one financed against the $100,000 aggregate and $20,500 annual limits, so its entrants need private credit once borrowing passes about $71,000 over the sequence modelled here, against $173,150 at the professional limits; that private tranche is the one on which Table 4 shows the arithmetic failing outside the lowest-cost tier. Other master's-entry clinical fields, among them clinical social work, mental health counseling, genetic counseling, and orthotics and prosthetics, are also absent from the list; the comparison set used here was chosen for the wage comparison, not for the list outcome.

The legal test that governs the list is worth setting out, because it bears on what the absence does and does not mean. The Department's rulemaking narrowed the professional-degree definition to a set of largely doctoral fields and added a program-length requirement. In staying it in June 2026 the court found the challengers likely to succeed on their claim that this exceeded the Department's authority, because the governing statute had incorporated the pre-existing regulatory definition: a three-part test asking whether a degree completes the academic requirements for beginning practice in a profession, signifies a level of skill beyond the bachelor's degree, and is one for which licensure is generally required. Report 7, released the same day, reproduces the Department's application of that test to dietetics in the preamble to the final rule (91 FR 23805 to 23807): the Department did not dispute that supervised practice and credentialing are mandatory features of the pathway, concluded that it does not meet the beginning-practice element, and added that some qualifying degrees take as few as five years of postsecondary education and that longer ones are at the master's rather than the doctoral level. Searched on September 25, 2026, that section mentions licensure only where it summarizes commenters. The interim list also carries sub-doctoral master's credentials and licensure regimes of varying uniformity, and its announcement, searched the same day, states no reason for any field it omits. This report does not assess the Department's grounds. The restored definition reads: "A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. Professional licensure is also generally required." It then gives ten examples, introduced as "include but are not limited to" (34 C.F.R. 668.2, the text in effect on July 4, 2025 and unchanged when read on September 15, 2026). The regulation does not itself use the phrase three-part test; the phrase belongs to the rulemaking record, where commenters and then the Department applied it to those three elements, and the court quoted it in that form in its opinion of June 24, 2026. The definition the court stayed had added that the degree be "generally at the doctoral level" and require "at least six academic years of postsecondary education coursework," and that its four-digit code fall in the same intermediate group as an enumerated field (34 C.F.R. 685.102(b)).

What can be said from these records is narrower and still worth stating: the definition is the text the statute incorporates, the Department's 2026 revision of it is preliminarily stayed in part, and the interim list issued under the restored definition places the compared clinical peers inside the professional-degree category but not dietetics. Who brought the litigation, a Medicare quality measure that names the dietitian's assessment, wage-setting institutions, federal nutrition initiatives and the levers that would change the arithmetic are discussed in the Supplementary appendix; Report 7 reads the rulemaking record.

Limitations

This design supports neither causal identification of what produces the pay ordering nor any estimate of what the 2026 borrowing limits will do to entry, which cannot be measured until cohorts have borrowed and entered repayment. It does not evidence the process that produced the 2026 classification, and no sentence here should be read as doing so. The wage survey measures occupation codes rather than credential holders, and the count gap between the two leaves the direction of any disaggregation bias undetermined. The wages are for May 2025 and describe a workforce that mostly entered under the earlier bachelor's route, so they precede the 2024 requirement. The Bureau of Labor Statistics does not encourage the use of Occupational Employment and Wage Statistics data for time-series analysis. The international comparison rests on pay points and survey statistics that are not the same construct and on credential-equivalence assumptions that are imperfect, and in neither retained comparator does the entry route to dietetic practice require a master's degree. The amortization matrix is a deterministic upper-bound case; its principal and cost components are the author's illustrative assumptions rather than measured program costs, while the living budgets are derived from the Consumer Expenditure Survey for 2024, and it omits scholarship support and, for the federal tranche only, Public Service Loan Forgiveness. The registry observation is a

series of periodic snapshots and is read as roughly flat, with growth of about 1 percent a year since September 2022. The interim professional-degree designations may change. What entrants do in response to any of this is a question for research that follows cohorts, not for administrative aggregates.

Conclusions

Dietitians and nutritionists were the lowest paid of the seven clinical occupations compared in the federal wage survey for May 2025, below respiratory therapy, whose entry credential is an associate's degree, and the ordering holds within hospitals and within states. At the pay points read in England and Canada, dietitian pay sits at or near registered-nurse pay. Under the borrowing limits in force from July 1, 2026, an illustrative graduate debt leaves a dietitian earning the national mean wage short at both living budgets in the central case, because the annual federal limit for programs outside the professional-degree list moves the rest of the debt onto private credit. Dietetics is absent from the interim list that carries its graduate-entry clinical peers, as are several other master's-entry fields; why is not answered by these records, and Report 7 sets out the reasons the Department stated.

Data availability

Every source used in this report is public. The primary sources are: the Bureau of Labor Statistics Occupational Employment and Wage Statistics national and industry estimates (May 2025 release, and the May 2015 release for the real-wage comparison); the Consumer Price Index for All Urban Consumers, series CUURoooosA0; the Current Population Survey household data annual averages; the Occupational Outlook Handbook; the Commission on Dietetic Registration registry statistics; the Accreditation Council for Education in Nutrition and Dietetics enrollment reports; Pub. L. 119-21; 34 C.F.R. §668.2 and §685.102(b); the Federal Student Aid electronic announcement carrying the interim professional-degree designations; and the pay instruments cited in Table 2.

Deposited with this report at 10.5281/zenodo.23044644 (concept 10.5281/zenodo.23044643): the financing-model scripts that reproduce Tables 3 and 4 at the living budgets this report uses, the state-panel code, the derived tables as CSV files, the figure scripts, the validity gate's recorded output, the dated verification sheet, and a SHA-256 manifest of every archived input with its retrieval date. The gate script itself is not deposited; its output is. The report record is 10.5281/zenodo.23570369 (version 1.0: 10.5281/zenodo.23044626). Version 1.1 of the data record, 10.5281/zenodo.23570372, holds two files: the version 1.0 archive without five files (the saved page named in Corrections; a federal directory of institutions, of which the supplement carries the two columns the report uses; a federal document that the report did not use; and two saved web pages whose markup holds third parties' e-mail addresses) and with four members changed (its readme, its two manifests and one name in its verification sheet), and a supplement. The supplement adds this version's text, the corrected rows of Table 2 and Figure 2 with their code and results, the author's scripts and recorded results for the figures the archive did not carry (the living budgets, tuition and debt, sex composition, registry counts, enrollment and openings, union coverage, the financing rules, the licensure compact and the classification list), the portal listing saved on September 15, 2026, the record of the validity gate run on this version and the verification addendum. The scripts the archive did not carry, except the one for the financing rules, which reads no file, read source files that the manifest cites by retrieval date and SHA-256 and the data record does not carry, so those scripts are there to be read and do not rerun from the record.

Third-party instruments are cited by their issuing body and effective date, and their files are not redistributed; the supplement carries only the rows this report reads from three of them (England's pay scales, Canada's Wages files and the purchasing-power parity series) and the portal's own listing of the Wages dataset. Sources that are replaced or revised on a schedule are identified by the date they were read: the registry count as of September 28, 2026, the interim designations as read on the date given in the text, and the Occupational Outlook Handbook figure by its projection period and the page's last-modified date. The version 1.0 deposit was assembled and verified on September 16, 2026, rebuilt the same day on the corrected living-cost basis, and rebuilt again on September 29, 2026, after the release-week re-pulls: 167 files (66.7 MB); manifest of 377 recorded retrievals (114 carried, 263 not carried). The version 1.1 archive leaves five of those files out: 162 files (61.5 MB); manifest of 377 recorded retrievals (109 carried, 268 not carried). The wage ladder, the financing model and the state panel were rerun from the rebuilt deposit alone and reproduced their deposited results field for field, and were rerun again from the version 1.1 archive on October 6, 2026, with the same result. The counts are of the assembled deposit; the record as staged also carries the dated verification sheet and the gate's recorded output. Every financing figure that this report prints is computed at the living budgets this report uses, $37,400 and $43,200. The deposit also holds figures at the retired budgets, in the retired run's files and in the records that compare the current run with it (the current model's reproduction of the retired run's 28 published figures, the change in the central case and the rebasis record). The earlier run on the retired budgets is kept in the deposit in six files: four in the archive (the retired-basis model, the first results of the financing task as a data file and a text file, and the earlier model of the source folder) and two in the supplement (the script and the results of the earlier run of the budgets task, superseded in their living-budget parts). They are the record that the current model reproduces before it rebases; the readme and the text manifest of the version 1.1 archive list the four as superseded, and the readme and the source list of the supplement mark the two. No table or figure of this report is computed at the retired budgets.

How this report was checked

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every reported number was regenerated by running the author's analysis code or read at the source that issues it, and re-derived independently by AI agents, and AI review agents read the text separately for statistics, sources, consistency and disclosure. The analysis code is deposited without the third-party and large input files it reads; Data availability says what the data record holds. A validity gate of 166 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

Corrections

Corrections to this report are dated, labelled and appended below, never made silently. Each correction names what was wrong, where the wrong figure came from, who identified it, and whether the argument survives. The version history for the series is in the Introduction.

No corrections have been issued to version 1.0 as of the release date.

Correction, version 1.1, October 22, 2026. The report gave Canada's ratio of dietitian pay to registered-nurse pay as 0.99. The ratio is 0.96. The report used the 2024 file of Employment and Social Development Canada's Wages data. That file covers 2022 to 2023. It gives national median wages of C$41.75 for dietitians and nutritionists and C$42.00 for registered nurses. The portal also carried a 2025 file, published on November 19, 2025. It covers 2023 to 2024. It gives C$41.63 and C$43.27 for the same two occupations. The portal's listing, saved on September 15, 2026, already showed the 2025 file. The report should have used it. An AI fact-check the author directed found the newer file on September 30, 2026. It was read again from the portal on October 2, 2026. Table 2, Figure 2 and the text and reference that describe them now use the 2025 file. The dietitian level is unchanged at $75,500. The registered-nurse level moves from $76,000 to $78,500. The table note on the World Bank parity is reworded, because at that parity the nurse level rounds to $78,000. The corrected files are in version 1.1 of the data record. Three files of the archive that hold the version 1.0 results of the international comparison are not replaced and keep the version 1.0 values; the readme of the supplement names them. The correction makes the contrast with the United States a little smaller: Canada is at 0.96 and the United States at 0.76. No finding changes, and the argument is unaffected.

Correction, version 1.1, October 22, 2026. The report described its data record inexactly in seven places. It said, in two places, that every reported number was regenerated from the deposited code, but the code for some of them was not deposited. It called the amortization model the file that reproduces Tables 3 and 4, but that file reproduces the retired run. It listed minting notes that the record does not hold. It said that the retired run was labelled superseded, but the run's own files carry no label; the readme and the manifest of data version 1.1 now list them as superseded. It said that every cell of Table 1 was regenerated, but the hospital cell for chiropractors prints no figure. The report said that third-party documents were not redistributed; data version 1.0 carried one saved page from a public directory of accredited programs, in error. Data version 1.1 omits it. It also adds the author's scripts and recorded results for the figures that version 1.0 did not carry, and the text now says what the record holds. A read-only AI audit the author directed, on October 2, 2026, found these places. No finding changes, and the argument is unaffected.

Updated October 22, 2026: the declaration of conflicting interest now also says that no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report, and states his Academy workgroup seat; the status note and the statement on the use of artificial intelligence were updated; England's pay-scale figure now comes from the 2026/27 scale (NHS Employers, published February 12, 2026; the newest published when it was read on October 2, 2026), which moves its level from $56,000 to $60,000 and leaves its ratio at 1.00; a note to Table 1 now says that the release publishes a hospital mean for chiropractors that the table does not print, and the statement that the ordering is the same nationally and in hospitals now covers the six occupations whose hospital means are printed; the wording on what the Bureau of Labor Statistics says about comparisons over time now follows the Bureau; the sentence on the search of the accrediting body's program directory now says which two of its eight program types and which page of results were read; and the printed check count is now 166, up from 95. None of this changes a finding.

Supplementary appendix

This appendix holds material the main text summarizes or points to, unchanged except where the clarity review found a claim the evidence did not support.

Scope: what this report does not examine

It does not examine the process that produced the 2026 decision. Nothing here shows why dietetics is not on the list, what any profession's representative body did or did not file, or what part the composition of any occupation played in the outcome. Those are documentary questions about the rulemaking record, which this report does not analyze. Report 7 in this series, released the same day, reads that record: the docket and its comments, the Federal Register preamble responses, and what the professions' representative bodies filed. Here the questions stay open and are labelled as open wherever they arise below.

What this report does not evidence. Three questions sit next to this material and are not answered by it. Whether the classification outcome reflects anything about how professions organize; whether any body's advocacy, or its absence, made a difference; and whether the composition of an occupation bore on the decision. Answering any of them requires the documentary record of the rulemaking: the docket and its comments, the preamble responses in the Federal Register, the filings in the litigation, and what each profession's representative body submitted. This report does not analyze that record; Report 7 in this series, released the same day, reads it and says what it shows and what it does not.

Who sought the change, and why some fields were added, is not examined here. The June 2026 stay followed consolidated challenges brought by professional associations (Nos. 26-1780, 26-1941 (D.D.C. 2026)). It would be easy to read the interim list as tracking that litigation, and this report does not do so: the challengers included one education association, the National Education Association, and associations for marriage and family therapy and for schools of public health, and a search of the list on September 25, 2026, found no code for any of those fields, so being a party did not

by itself place a field on the list. Establishing what did would require the documentary record: the docket and its comments, the preamble responses, the filings, and what each profession's representative body submitted and when. This report does not analyze that record and takes no position on it; Report 7 in this series, released the same day, reports what it shows and what it does not.

That report is Report 7 in this series, released the same day, and its subject is the documentary record rather than anyone's intentions. It reads the rulemaking docket at regulations.gov, Docket ID ED-2025-OPE-0944, together with the public comments filed in it; the Department's proposed rule of January 30, 2026 (91 FR 4254); and the preamble to the final rule of May 1, 2026 (91 FR 23768), which carries the Department's responses to comments received; the filings and orders in the consolidated cases before the United States District Court for the District of Columbia, Nos. 26-1780 and 26-1941; and the submissions filed by the professions' representative bodies, traced to their filers. Each of these records was public and reachable when this report was prepared, checked on September 15, 2026. Report 7 reports what the record contains, whose submissions are in it and what the Department answered, and states as plainly what a record of this kind cannot establish: why any decision was reached. It attributes no motive, strategy or omission to any organization or person.

Licensing, certification and credentialing

Credentialing, certification and licensing are not the same thing, and this report keeps them apart. In Weeden's (2002) scheme the family is social closure, and licensing, educational credentialing and voluntary certification are three separate closure devices within it, alongside association representation and unionization; that study maps those five devices onto 488 occupations and argues that closure raises the rewards of an occupation's members by restricting the supply of labor, by enhancing or channeling demand, or by signaling a quality of service (Weeden 2002:55-101). Licensing in that scheme is a governmental grant of an exclusive right to perform particular work; voluntary certification is a privately administered attestation that a person has met a standard; educational credentialing is a requirement to hold a particular qualification. The registered dietitian nutritionist credential is issued by a private body, the Commission on Dietetic Registration, and reserves a title rather than an activity, so in those terms it pairs an educational credential requirement with a privately administered certification rather than a government license. State dietitian licensure exists but varies. This matters for what can be borrowed from the literature. Kleiner and Krueger (2013), using a specially designed national survey of the United States labor force, estimate that 29 percent of employees were licensed by government and 35 percent were licensed or certified by government, and they report that licensing is associated with about 18 percent higher wages while the pay association for government certification is much smaller; Kleiner (2006) examines the costs and benefits of occupational licensing in the United States and several European economies. Those estimates are for government licensing, and the same 2013 study finds a much smaller pay association where the government certifies rather than licenses, so they do not carry over to a private credential of this kind, and this report does not argue that they do.

The professional-degree definition and the court's stay

The professional-degree definition is the text of 34 C.F.R. §668.2 as it stood on July 4, 2025, which the statute incorporates. The Department's Reimagining and Improving Student Education rulemaking narrowed it; on June 24, 2026, the U.S. District Court for the District of Columbia preliminarily stayed part of the Department's narrowed definition at 34 C.F.R. §685.102(b), finding the challengers likely to succeed on their claim that the statute had incorporated the pre-existing regulatory definition, and Federal Student Aid then published an interim list of qualifying programs under the restored definition (Nos. 26-1780, 26-1941 (D.D.C. 2026); Federal Student Aid 2026b). The interim designations carry the master's- and doctoral-level clinical programs named above. The list is expressly subject to change, and its status should be checked at the date of reading. These were verified at their issuing sources on September 15, 2026. The order was entered on June 24, 2026, by Judge Beryl A. Howell in Civil Action Nos. 26-1780 and 26-1941, and it preliminarily set aside and stayed part (i) of the professional-degree definition in the final rule at 91 Fed. Reg. 23768, 23882 (May 1, 2026), to be codified at 34 C.F.R. 685.102(b), together with a further requirement stated in the rule's preamble at 91 Fed. Reg. 23787; the request to stay part (ii) of the same definition was denied. The definition the stay restores is the one at 34 C.F.R. 668.2, which the statute incorporates as it stood on July 4, 2025.

Graduate borrowing for readers outside the country

How United States graduate borrowing works, for readers outside the country. A graduate student borrows first from the federal government. From July 1, 2026, the Act ends Grad PLUS borrowing for new graduate students, caps federal graduate borrowing at $20,500 a year and $100,000 in total for ordinary graduate study and at $50,000 a year and $200,000 for professional-degree study, closes new enrollment in the income-driven repayment plans earlier cohorts used, and replaces them with two plans, a standard plan whose term is set by the balance owed and an income-based Repayment Assistance Plan under which payments are a set percentage of income by band (One Big Beautiful Bill Act of 2025). Federal loans carry protections that matter as much as the interest rate: payments that track income, and Public Service Loan Forgiveness, which cancels the remaining balance of federal Direct loans after a period of qualifying public or nonprofit employment. Borrowing above the federal limit comes from private lenders and carries none of these: no income-based payment, no forgiveness, and no statutory relief. Which set of limits applies turns on whether the program awards a professional degree as that term was defined at 34 C.F.R. §668.2 on July 4, 2025, the date of enactment, which is the text the statute pins. Those limits and the terms that go with them were read at the statute and the issuing agency on September 15, 2026. The annual limits are $20,500 for a graduate student and $50,000 for a professional student, the aggregate limits $100,000 and $200,000, and a lifetime ceiling of $257,500 applies to everything a student borrows (Pub. L. 119-21, sec. 81001). A student enrolled on June 30, 2026, who had already received a federal loan for that program keeps the earlier limits for the time left in it, at most three academic years. For loans made on or after July 1, 2026, the older repayment plans are closed and two remain: a standard plan whose term runs from ten to twenty-five years according to the balance owed, and the Repayment Assistance Plan, under which the annual payment is a percentage of adjusted gross income rising by $10,000 band from 1 percent to 10 percent, never less than $10 a month and reduced by $50 a month for each dependent (20 U.S.C. 1087e(d)(7) and (q); 34 C.F.R. §685.209). At the May 2025 mean wage of $77,130 the applicable band is 7 percent, or $5,399 a year. Interest the payment does not cover is not charged in a month paid on time, and any balance left after 360 qualifying monthly payments is cancelled. Graduate Direct Unsubsidized loans first disbursed in the 2026 to 2027 award year carry a fixed 8.07 percent, being the high yield of the ten-year Treasury note auctioned on May 12, 2026, 4.468 percent, plus the statutory 3.6

points, under a 9.5 percent ceiling (20 U.S.C. 1087e(b)(8)(B)), and a loan fee of 1.057 percent is deducted from each disbursement (Federal Student Aid, Electronic Announcement GENERAL-26-28, May 13, 2026). Public Service Loan Forgiveness cancels the balance of federal Direct loans after 120 qualifying monthly payments made while working full time for a government employer or a tax-exempt organization under section 501(c)(3), and payments under the Repayment Assistance Plan now count toward it (20 U.S.C. 1087e(m), as amended by Pub. L. 119-21, sec. 82004). None of this reaches a private loan, because the Repayment Assistance Plan, the income-driven plans and forgiveness all apply only to loans made under the federal Direct Loan program. For the duration of the court's stay the Department is administering an interim list of designated programs rather than applying that regulatory test case by case (Federal Student Aid, Electronic Announcement GENERAL-26-42, June 29, 2026, updated July 10, 2026).

Real wages, 2015 to 2025

Dietitian nominal mean wages over 2015 to 2025 rose 32.0 percent, from a national mean of $58,410 in the May 2015 estimates, released March 30, 2016, as bulletin USDL-16-0661, to $77,130 in the May 2025 estimates, released May 15, 2026, as bulletin USDL-26-0725, with a 95 percent interval of 30.6 to 33.5 percent from the relative standard error of 0.4 percent the survey publishes on each of the two means against consumer-price growth of 35.8 percent, on series CUUR0000SA0, the Consumer Price Index for All Urban Consumers, United States city average, all items, not seasonally adjusted, from the 2015 annual average of 237.017 to the 2025 annual average of 321.943. The 2025 annual average is the Bureau's published figure for that year and rests on eleven monthly values, the series carrying October 2025 with the footnote that the data are unavailable because of the 2025 lapse in appropriations, a real change of -2.8 percent, with a 95 percent interval of -3.9 to -1.7 percent. The arithmetic is ($77,130 divided by $58,410) divided by (321.943 divided by 237.017), less one: $58,410 in May 2015 is $79,339 in 2025 annual-average dollars, against the $77,130 observed. The interval covers sampling error in the two wage means alone, and the wage window runs between two May reference dates while the price window runs between two calendar-year averages (Bureau of Labor Statistics 2016, 2026a, 2026b). The Bureau of Labor Statistics does not encourage the use of Occupational Employment and Wage Statistics data for time-series analysis, and lists changes in the occupational classification and in the survey methodology among the comparability issues; both changed within the window, so this is an indicative magnitude.

Registry and pipeline

Credential registry and pipeline. The Commission on Dietetic Registration publishes periodic counts of active credentials. The 2026 series read for this report was 114,209 on March 23, 113,497 on April 13, 113,616 on May 11, 113,727 on June 1, 113,857 on June 22, 114,716 on August 17, 114,107 on September 14, 114,301 on September 21 and 114,391 on September 28, which is roughly flat through the year, with growth of about 1 percent a year since September 2022, and is not evidence of contraction (Commission on Dietetic Registration 2026). The Accreditation Council for Education in Nutrition and Dietetics publishes annual program enrollment; total accredited-program enrollment was 24,423 in 2014 and 14,336 in 2025, the latest data year in the series, a decline of 41.3 percent, with the 2024 total at 14,170 (Accreditation Council for Education in Nutrition and Dietetics 2026). That figure is enrollment, not graduates, and it is inclusive of Future Education Model reclassification, which has not been quantified here, so the direction is likely but is not established net of reclassification. The page posts one current count at a time, so this is a set of dated readings rather than a continuous record. The readings for March 23, June 1 and June 22 were recorded by the author; those for August 17, September 14, September 21 and September 28, 2026, are the author's own reads of the live page, made on August 18, September 15, September 24 and September 29, 2026. A search of the Internet Archive's capture index on September 29, 2026, found one capture of the page after June 16, 2026, taken on September 25, 2026, which shows the September 21 posting at 114,301, the count read here; none of the other postings can be checked there. Dated captures of the same page held by the Internet Archive record eight postings between January 19 and June 15, 2026, among them 113,497 on April 13, the lowest of the 2026 readings on record, and 113,616 on May 11. They also supply the earlier counts used for comparison: 93,432 on September 14, 2015, 103,853 on October 7, 2019, 109,420 on September 26, 2022, 111,883 on September 23, 2024, and 113,012 on January 20, 112,523 on April 14 and 112,994 on July 7, 2025. The spring dip is read from the same captures as a count posted between April and June below one posted earlier that year; it appears in every year from 2021 with postings on both sides of April 1, which excludes 2024, for which the capture index holds none before April. The enrollment figures come from the table headed number of enrolled students/interns by program type in the Accreditation Council's Dietetics Education Program Statistics 2000 to 2025, retrieved August 3, 2026; a companion table in the same publication counts enrolled students by race and ethnic origin and reports a 2024 total of 14,436 on that basis, so the table is named wherever a figure is used. Future Education Model enrollment sits inside the 14,170 total: the total is the sum of the five program-type rows, of which Future Education Model graduate programs contribute 2,005 in 2024, and that identity holds in every year of the table.

The registry count was roughly flat through 2026 after a decade of growth: 114,209 on March 23, a spring dip to 113,497 on April 13, the lowest among the 2026 readings on record, and 114,391 on September 28 (Commission on Dietetic Registration 2026). Growth has slowed to about 1 percent a year, from 111,883 on September 23, 2024 to 114,391 on September 28, 2026, the same pace as the two years before (109,420 on September 26, 2022). The slowing came in steps: the count rose about 2.6 percent a year from 93,432 on September 14, 2015 to 103,853 on October 7, 2019, and about 1.8 percent a year from then to September 26, 2022. The spring dip recurs; the archived postings show it in 2021, 2022, 2023 and 2025 as well. In 2025 the count went from 113,012 on January 20 to 112,523 on April 14 and had risen again to 112,994 by July 7. The registry is not evidence of contraction, and no cause is assigned to the slower growth here. Total accredited-program enrollment fell from 24,423 in 2014 to 14,336 in 2025, a decline of 41.3 percent, with the didactic-program component alone falling from 17,719 to 7,748 over the same years (Accreditation Council for Education in Nutrition and Dietetics 2026); both figures are enrollment rather than graduates and both are inclusive of Future Education Model reclassification, which is not quantified here. Unfilled dietetic internship positions exceeded filled positions in 2023 (n = 2,405). Against that pipeline, the Bureau of Labor Statistics projects about 5,700 dietitian openings a year over 2025 to 2035, most of them replacing practitioners who leave or retire (Bureau of Labor Statistics 2026d). These are descriptive series read side by side; nothing here shows that any of them responds to the pay or financing structure. The registry count was re-read on September 29, 2026 and the other two series on September 25, 2026. The registry count of 114,391 carries the as-of date September 28, 2026. The enrollment figures are from the 2000 to 2025 edition of the accreditor's program statistics, whose latest data year is 2025, when the total stood at 14,336. The openings projection is from the Occupational Outlook Handbook page for dietitians and nutritionists, last modified August 27, 2026, which gives the projection period as 2025 to 2035 and projected employment of 86,300 in 2025 rising to 93,000 in 2035.

A Medicare quality measure

The dietitian's nutrition assessment is meanwhile the measured standard of care under a Medicare hospital quality measure, expanded to adults 18 and older in 2026 (Centers for Medicare & Medicaid Services 2026). Why the two sit together is not answered by these data and is not claimed here. The measure is the Malnutrition Care Score electronic clinical quality measure, identifier CMS986v5 for the 2026 reporting period, consensus-based entity identifier 3592e, stewarded by the Academy of Nutrition and Dietetics. Its initial population is inpatient encounters with a length of stay of 24 hours or more among individuals 18 years of age and older, widened from 65 and older, the population used by the prior version CMS986v4 under the name Global Malnutrition Composite Score. The widening was finalized in the fiscal year 2025 hospital inpatient prospective payment final rule, 89 Fed. Reg. 68986, 69622 (August 28, 2024), which modified the measure "beginning with the CY 2026 reporting period, by adding patients ages 18 to 64 to the current cohort of patients 65 years or older." The specification was read on September 15, 2026, where the page carried a last-updated date of May 13, 2026.

Wage setting

The comparator countries differ from the United States in how pay is set. In England dietitians and nurses sit on the same national pay spine (NHS Employers 2026). Pay for non-physician clinicians in the United States is set by employers, and dietitian licensure is a state matter. **What that difference does to pay is not measured in this report.** Collective bargaining coverage, staffing norms and the other wage-setting institutions that plausibly bear on the comparison are named here and not analysed; asserting their effect without measuring it would be a claim this design cannot support on these data. Two of them can be given a figure, and one can be read from the rule itself. In the Current Population Survey outgoing rotation group files for 2025, 13.3 percent of employed wage and salary dietitians and nutritionists aged 16 and over were covered by a collective bargaining agreement, against 20.1 percent of registered nurses, 24.9 percent of speech-language pathologists, 13.5 percent of respiratory therapists, 12.4 percent of occupational therapists and 9.4 percent of physical therapists (Hirsch, Macpherson and Even, Union Membership and Coverage Database, 2025 estimates compiled January 23, 2026). The dietitian estimate rests on ninety-three sampled workers and its 95 percent interval runs from 7.9 to 21.7 percent, so on these data dietitians are not distinguishable from any of the five comparators on coverage, and the 2025 averages exclude October, when the survey was not collected. On staffing, the Medicare hospital conditions of participation name both professions rather than nursing alone: 42 C.F.R. §482.23 requires an organized nursing service, twenty-four-hour nursing, a registered nurse as director of the service and "adequate numbers" of licensed nursing staff, and 42 C.F.R. §482.28 requires organized dietary services and "a qualified dietitian, full-time, part-time, or on a consultant basis" (2025 annual edition, read September 15, 2026). Neither section sets a numerical staffing ratio, and the long-term-care requirement at 42 C.F.R. §483.60 is written the same way. What either requirement does to pay is not measured here, no state staffing or bargaining law was surveyed for this report, and these figures are reported as context rather than as an account of the pay ordering. An interstate Dietitian Licensure Compact has also been enacted by a number of states (the compact's own Compact Map listed nineteen states as having enacted it when it was read on September 15, 2026, from a map file last changed in July 2026; the available public sources disagree on the count, including the front page of that same site, and this report prints one source rather than reconciling them); a compact addresses practice mobility rather than a staffing standard or the financing classification.

The composition of the affected workforce can be stated with its basis. In the Current Population Survey annual averages for 2025, dietitians and nutritionists were 91.7 percent women, which places the occupation among the most feminized in this comparison set, alongside speech-language pathology at 97.3 percent and occupational therapy at 92.4 percent (Bureau of Labor Statistics 2026c). That survey counts the people employed in the occupation, a wider group than the registered dietitian nutritionists who hold the credential, and the two populations are not interchangeable; this report uses the survey basis throughout. It states no separate figure for the credentialed workforce alone. Searches on September 15, 2026, of the Commission on Dietetic Registration's registry statistics and demographics pages, and of the Academy and Commission Needs Satisfaction Survey reports to which those pages refer, did not locate a primary source for the sex composition or the racial and ethnic composition of the credentialed workforce, so neither is stated here. Dietetics is the lowest paid of the compared occupations. Both of the more feminized comparison occupations are on the professional-degree list, which is one reason this report does not read the classification outcome as following from composition; it does not test that question either way.

A profession named in federal rule

The findings sit beside a tension within federal policy itself. The financing architecture documented here raises the cost of entering the specialist nutrition pipeline, while federal initiatives look to the generalist channel, physician-delivered nutrition counseling, for part of the same work (The White House 2022; Eisenberg et al. 2024), even as a Medicare quality measure names the specialist's assessment as the standard of care. The substitution is constrained on its own terms: U.S. medical students receive roughly 19.6 contact hours of nutrition instruction, most schools below the recommended minimum (Adams, Kohlmeier, and Zeisel 2010), a gap the competency initiatives aim to close (Eisenberg et al. 2024), and physicians lack uncommitted time, with guideline-recommended preventive care alone estimated at 7.4 hours per workday (Yarnall et al. 2003) and total primary-care demands at 26.7 hours per day, falling to 9.3 under team-based care (Porter et al. 2023). Meanwhile RDN-delivered medical nutrition therapy improves outcomes in primary-care randomized trials and is endorsed as cost-effective, yet referral to the dietitian is consistently under-used relative to physician-delivered advice (Mitchell et al. 2017; Briggs Early and Stanley 2018; Pojednic et al. 2023). These strands are convergent, not a head-to-head comparison; read together, they describe a specialist pipeline that is harder to finance beside a generalist workforce asked to absorb counseling for which it has neither sufficient training nor available time, as diet-related disease burden rises. The policy literature itself frames the answer as collaborative, RDN-inclusive care rather than substitution (Aspry et al. 2018); the financing architecture documented here raises the cost of entering the specialist side of that collaboration; whether it reduces entry cannot yet be measured.

Federal nutrition initiatives and the credentialed workforce

The absence is the more striking for the moment at which it occurs. Nutrition has rarely held a more prominent place on the federal agenda: the 2022 White House Conference on Hunger, Nutrition, and Health, the 2025 Make America Healthy Again initiative, the chronic-disease framing of the 2025 to 2030 Dietary Guidelines, and the food-as-medicine movement have together pushed diet toward the center of federal chronic-disease policy across two administrations (The White House 2022, 2025; U.S. Department of Agriculture and U.S. Department of Health and Human Services 2026). A rise in the salience of a service might be expected to raise the standing and market value of the profession that delivers it, although this report does not measure demand. Yet these initiatives elevate nutrition while resting on food policy and on the nutrition training of physicians (Eisenberg et al. 2024), and they neither center nor fund the credentialed nutrition profession, registered dietitian nutritionists, whose evidence-based scope of practice the agenda presupposes (Academy of Nutrition and Dietetics 2018). The profession that federal rule names as the standard of care under a Medicare quality measure is, in the design and financing of the wider agenda, largely a presumed input rather than a resourced participant. The pattern extends across financing instruments: the National Health Service Corps Loan Repayment Program repays the educational loans of primary-care, dental, behavioral-health, and maternity-care clinicians serving in shortage areas, but a search of its page on September 25, 2026, found no nutrition or dietetics discipline among those it lists as eligible (Health Resources and Services Administration 2026). The absence from the section 668.2 list and the absence from that loan repayment program are two instances; two instances do not establish a pattern.

The credential protects a title rather than an activity. The registered dietitian nutritionist credential is reserved, while dietitian licensure is a state patchwork (Academy of Nutrition and Dietetics N.d.); on the distinction drawn earlier, that is certification with partial state licensure rather than licensing in the strict sense. The federal occupational category likewise does not coincide with the credential: the survey's employment count sits well below the credentialed registry, which shows that the occupation code and the credential describe different populations, and not which direction any wage difference between them runs. Nutrition information reaches the public through channels the credential does not govern. In a cross-sectional content analysis of 250 randomly selected nutrition posts on TikTok, collected in April 2024 from posts published between September 2023 and March 2024, health and wellness influencers were the most common creators among the posts sampled, at 32 percent of them, and dietitians produced 5 percent; of the posts the study could assess on that criterion, 55 percent did not provide evidence-based information (Zeng et al. 2025). The posts were identified by hashtag and the study reports no restriction by country, so it describes content on the platform rather than any national audience. In a mixed-methods study of fifty-six cancer survivors in Ireland, all of them at least six months past treatment and recruited through cancer support centers' social media, seven had received nutrition advice from a dietitian and fifty-two wanted it, and "dietitians as the preferred source of advice" was one of four themes in the study's thematic analysis (Keaver, O'Callaghan, and Douglas 2023). That is one self-selected sample of survivors in one country, and it does not support a claim about patients generally.

What would change the arithmetic

The post-2026 architecture, the §668.2 list as redrawn, and the descriptive evidence together define a structural policy fork rather than a wage-advocacy ask. Three resolutions are arithmetically possible: (a) RDN wage growth sufficient to make private-tranche amortization feasible at a major-metropolitan budget; (b) addition of dietetics to the 34 C.F.R. §668.2 professional-degree list, raising the federal cap from $100,000 to $200,000 and contracting the private tranche; or (c) fewer people entering the profession, which the registry does not show is happening. The choice among them is a federal policy question, and the recent history of the list demonstrates that resolution (b) is neither hypothetical nor remote: the boundary has moved twice in little more than a year, clinical psychology was added to the Department's enumerated list during the rulemaking itself, and the allied-health professions in June 2026, and it could move again.

Four federal levers map onto these resolutions. First, the financing architecture itself, adding dietetics to the professional-degree definition, or related shortage-occupation instruments. Second, Medicare conditions of participation: the dietitian requirement at 42 C.F.R. §482.28 specifies a qualified dietitian who may be full-time, part-time or a consultant, and a condition written in the terms used for the nursing service at §482.23 would be a different instrument. Third, expansion of the federal Medical Nutrition Therapy benefit: the Medical Nutrition Therapy Act in the 119th Congress (H.R. 6199; S. 3934) would expand Medicare medical nutrition therapy beyond diabetes and kidney disease (42 C.F.R. §410.130) to roughly a dozen conditions, supplying a reimbursement-side foundation for institutional wage formation. Fourth, the physician-competency initiatives, whose own framing presumes a dietitian to refer to.

These are instruments, not recommendations, and this report does not evaluate them or estimate what any of them would do. Two things can be said from the record. The Department revised the professional-degree definition in 2026 and a court has preliminarily stayed part of that revision, so the definition is the instrument that has most recently moved. The interim list is expressly subject to further order, so its content at any date is a question of fact to be checked rather than assumed. What each route would require, who decides it, and what it would cost are outside this report.

Glossary

- **Occupational Employment and Wage Statistics.** A Bureau of Labor Statistics survey of employers that estimates employment and wages for jobs in nonfarm establishments. It does not cover the unincorporated self-employed, and it counts jobs rather than people or credential holders.
- **Standard Occupational Classification code.** The federal code that identifies an occupation in that survey; dietitians and nutritionists are 29-1031.
- **Credential tier.** The credential currently required to enter an occupation, which is not necessarily the credential held by people already working in it.
- **Professional-degree definition.** The regulatory definition at 34 C.F.R. §668.2 that determines which graduate programs borrow at the higher federal limits. The statute fixes that definition as it stood on July 4, 2025, the date it was enacted. While the court's stay runs, which programs qualify is administered through the interim designations below.

- **Repayment Assistance Plan.** One of the two repayment plans available for federal loans made on or after July 1, 2026, under which the annual payment is a set percentage of income by band, from 1 percent to 10 percent. Payments under it count toward Public Service Loan Forgiveness.
- **Public Service Loan Forgiveness.** Cancellation of the remaining balance of federal Direct loans after 120 qualifying monthly payments, which take at least ten years, made while working full time for a government or nonprofit employer. Private loans are ineligible.
- **Purchasing-power parity.** A conversion factor that adjusts currencies for what they buy, used here to compare pay across countries.
- **Standard amortization.** Repayment in fixed instalments that retire a loan, with interest, by the end of a stated term.
- **Registered dietitian nutritionist.** The credential a dietitian holds in the United States, awarded by the Commission on Dietetic Registration. It reserves the title rather than the activity.
- **Commission on Dietetic Registration.** The private body that awards that credential and sets what a candidate must hold to sit its examination. It is not a government agency.
- **Federal Student Aid.** The office of the U.S. Department of Education that administers federal student loans and grants.
- **Interim professional-degree designations.** The list of program codes Federal Student Aid published in 2026, and administers while the court's stay runs, identifying the programs treated as professional degrees for borrowing.
- **Classification of Instructional Programs code.** The six-digit federal code that identifies a field of study; the designations are published as a list of these codes. Dietetics is 51.3101.
- **Grad PLUS.** The federal loan that let a graduate student borrow up to the full cost of a program. It is unavailable for instruction beginning on or after July 1, 2026, which is what leaves a gap for private credit to fill.
- **Federal tranche and private tranche.** The part of a student's borrowing that comes from the federal government up to its limit, and the remainder borrowed from a private lender.
- **Residual income.** In this report, the annual wage less loan payments, less a tax proxy, less an assumed living budget. A negative figure means the assumed budget is not met.
- **Mean and median.** The mean is the arithmetic average of all wages; the median is the wage of the middle earner. They are not interchangeable and this report states which one it is using.

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Table 1. Clinical pay ladder: mean annual wages, Occupational Employment and Wage Statistics, May 2025 release, national and hospital industry

SOC code	Occupation	Entry credential tier	National mean wage	Hospital industry mean
29-1123	Physical therapists	Doctoral (DPT)	$105,280	$110,210
29-1141	Registered nurses	Associate's or bachelor's	$101,420	$104,360
29-1122	Occupational therapists	Master's or doctoral	$101,280	$104,350

SOC code	Occupation	Entry credential tier	National mean wage	Hospital industry mean
29-1127	Speech-language pathologists	Master's	$98,170	$104,270
29-1011	Chiropractors (a)	Doctoral (DC)	$90,520	(largely non-hospital)
29-1126	Respiratory therapists	Associate's	$87,300	$87,810
29-1031	Dietitians and nutritionists	Master's (requirement effective January 1, 2024)	$77,130	$78,710

Units: mean annual wages in US dollars, computed by the survey as the hourly mean multiplied by 2,080 hours. Source: Bureau of Labor Statistics, Occupational Employment and Wage Statistics, May 2025 release (released May 15, 2026), national estimates and the hospital industry (North American Industry Classification System code 622100), retrieved September 15, 2026. Basis: an all-employer survey of wage and salary jobs in nonfarm establishments; it excludes the unincorporated self-employed and counts jobs, not credential holders. Dietitian national median $76,400; dietitian employment 77,570. The respiratory therapy to dietitian gap is $10,170 a year nationally and $9,100 within hospitals. The credential tier is the current entry requirement for the occupation, not the credentials held by the measured workforce.

a. Chiropractors are excluded from the financing model in Tables 3 and 4; the borrowing and forgiveness rules that apply to that credential differ from those governing the master's-tier programs modelled. The May 2025 release does publish a hospital-industry mean for chiropractors, $121,810 on an estimated employment of 130, under 1 percent of the 39,630 chiropractors in the national estimate; the table does not print it, and the statement that the ordering is the same nationally and in hospitals is made for the other six occupations.

b. What the 2026 interim designations added for nursing were graduate nursing programs (master's and doctoral, including nurse anesthesia). The wage row above is the whole registered-nurse workforce, whose entry credential is an associate's or bachelor's degree. Every figure in this table was regenerated from the May 2025 release on September 15, 2026; the hospital cell for chiropractors prints none. The national means reproduce to the dollar against three independent renderings of that release, the Bureau's public data interface, the downloadable national estimate file and the printed news release table; the hospital means reproduce against the first two, since the news release does not print industry detail. The codes are 51.3801 Registered Nursing/Registered Nurse (MSN), 51.3804 Nurse Anesthetist (DNAP) and 51.3818 Nursing Practice (DNP), read on September 15, 2026; the announcement's July 10, 2026, update extends 51.3801 and 51.3818 to any program in the same four-digit code that awards the same credential. No code on the list covers registered nursing at associate's or bachelor's entry.

Table 2. Dietitian and registered-nurse pay points, purchasing-power adjusted (2024 parities), three economies

Country	How pay is set	What the figure is	Dietitian	Registered nurse	Ratio
United States	Employer-set	Survey mean, May 2025	$77,130	$101,420	0.76
United Kingdom (England)	National banded pay structure	Pay-scale point, Band 6 entry step, both occupations	$60,000	$60,000	1.00
Canada	Employer and provincial bargaining	National median hourly wage, NOC 31121 and 31301, annualized at 2,080 hours	$75,500	$78,500	0.96

Units: US dollars, converted at 2024 OECD purchasing-power parities for gross domestic product; non-US figures rounded to the nearest $500. Sources: NHS Employers (2026); Employment and Social Development Canada (2025); Bureau of Labor Statistics (2026a); OECD (2025). Basis and caveats: the rows are not one construct. One is an employer-reported survey mean, one is a point on a national pay scale and one is a national survey median, so the levels are not strictly comparable and the ratios are read as context rather than as measurements of the same quantity. A single national parity scales both wages, so each ratio is invariant to the conversion. The England ratio of 1.00 is parity by band assignment, not a measured similarity: both occupations are matched to Band 6 and both also enter at Band 5, so Band 6 is an experienced grade for each. In both retained comparators the entry route to dietetic practice includes an undergraduate degree rather than a master's degree, so this table does not test what a credential requirement does to pay. Two rows in an earlier version were dropped rather than carried with a caveat: Australia, because public-hospital pay there is set by state and territory instruments and no single national instrument carries both occupations, and Germany, because the grading rules that assign each occupation to a pay group could not be read at the issuing body and nursing staff under that agreement are paid on a separate nursing table. Every pay point was verified at its issuing instrument on September 15, 2026, except that the Canadian file and England's pay scale were read on October 2, 2026. The England row is the Band 6 entry step of £39,959 in the Agenda for Change pay scales for 2026/27, published by NHS Employers on February 12, 2026 and effective from April 1, 2026; the NHS national job profiles carry a Band 6 profile for both occupations, and both enter at Band 5, so Band 6 is an experienced grade for each and the ratio of 1.00 is parity by band assignment. The Canada row is the national median hourly wage for the 2023 to 2024 reference period, C$41.63 and C$43.27, from the Wages file published by Employment and Social Development Canada in November 2025 using Labour Force Survey data, annualized at 2,080 hours to match the United States convention; that file publishes a low, median and high wage and no standard error. The parities used are 0.664 for the United Kingdom and 1.15 for Canada, which match the World Bank parities for the same year to within 0.05 percent, and substituting the World Bank values leaves every ratio and every level here unchanged except the Canadian registered-nurse level, which would round to $78,000. Two rows in the earlier version were dropped rather than carried with a caveat. Australia was dropped because public-hospital pay there is set by state and territory instruments, so no single national instrument carries both occupations. Germany was dropped because the grading rules that assign each occupation to a pay group could not be read at the issuing body, and because nursing staff under that agreement are paid on a separate nursing table rather than the pay groups previously cited.

Table 3. Residual annual income under standard amortization, $161,000 illustrative principal, $77,130 mean wage, ten-year term

Interest rate	Tax proxy	Annual debt service	Living budget $37,400	Living budget $43,200
8%	22%	$23,440	−$679	−$6,479
8%	28%	$23,440	−$5,307	−$11,107
9% (central case)	22%	$24,474	−$1,712	−$7,512
9%	28%	$24,474	−$6,340	−$12,140
10%	22%	$25,532	−$2,770	−$8,570
10%	28%	$25,532	−$7,398	−$13,198

Units: US dollars a year. Residual income = wage − annual debt service − (tax proxy × wage) − living budget. Author's calculations; monthly payment = P × [r(1 + r)^n] / [(1 + r)^n − 1], n = 120. Basis: the principal is the author's illustrative assumption, not a measured program cost; the living budgets of $37,400 and $43,200 are derived from the Bureau of Labor Statistics Consumer Expenditure Survey 2024, Tables 1400 and 2400. Both tax proxies are applied flat to the gross wage, and whether the 28 percent proxy also exceeds state liability was not tested. The composition in Table 4 is more representative. At a $200,000 principal all twelve cells are negative; at a $120,000 principal, four of the twelve are positive. Every cell and both counts were regenerated from the deposited model on September 16, 2026, at the sourced living budgets; at their point estimates, none of the twelve cells is positive at this principal. At this wage, federal income tax plus payroll tax for an unmarried standard-deduction filer is 18.2 percent of gross under 2026 parameters, so the 22 percent proxy sits 3.8 points above that and the 28 percent proxy 9.8 points above it. Carrying the 0.4 percent relative standard error of the May 2025 mean wage through the model gives a 95 percent interval of about $472 on either side of each cell at the 22 percent proxy and about $435 at the 28 percent proxy. The living budgets carry survey error of their own, which the published tables allow only to be bounded: about $1,133 to $2,267 either side at 95 percent, the first if the six categories are independent and the second if they move together; at the upper bound the central cell's interval runs from negative $3,980 to positive $555.

Table 4. Debt composition and residual income for a 2026-cohort entrant at the $77,130 mean wage

Program type	Total debt	Federal tranche	Private tranche	Private annual percentage rate	Residual: $37,400 budget	Residual: $43,200 budget	Counterfactual private tranche	Counterfactual residual: $43,200 budget
In-state public master's	$110,000	$71,000	$39,000	9%	+$11,434	+$5,634	$0	+$11,562
Out-of-state public master's	$170,000	$71,000	$99,000	10%	+$1,663	−$4,137	$0	+$11,562
Private or top-cost master's	$210,000	$71,000	$139,000	10%	−$4,680	−$10,480	$36,850	+$5,719
Private high-cost master's	$260,000	$71,000	$189,000	11%	−$13,879	−$19,679	$86,850	−$2,794

Units: US dollars a year. Author's calculations. Basis: the federal tranche of approximately $71,000 is the $20,500 annual Direct Unsubsidized limit over a roughly three-and-a-half-year sequence, net of origination fees; it is the annual limit, not the $100,000 aggregate cap, that binds over a sequence this short, so the private tranche in every row is measured from $71,000. The federal tranche is carried on the Repayment Assistance Plan at the statutory 7 percent-of-income tier ($5,399 a year at this wage); the private tranche is amortized over ten years at the annual percentage rate shown; the tax proxy is held at 22 percent of gross. Private borrowing is ineligible for the Repayment Assistance Plan, for income-driven repayment and for forgiveness. Applying the income-based plan to the entire principal, were it eligible, would give +$11,562 at the $43,200 budget. Total debt figures are the author's illustrative program tiers; the living budgets of $37,400 and $43,200 are derived from the Bureau of Labor Statistics Consumer Expenditure Survey 2024, Tables 1400 and 2400. Every cell was regenerated from the deposited model on September 16, 2026, at the sourced living budgets. The federal tranche reconciles to the limit and the fee actually charged: $20,500 a year over three and a half years is $71,750, and less the 1.057 percent loan fee that applies to this disbursement window (Federal Student Aid, Electronic Announcement GENERAL-26-28, May 13, 2026) it is $70,992, against the $71,000 carried here. The counterfactual columns apply the professional-degree limits of $50,000 a year and $200,000 in aggregate to the same sequence, a federal capacity of $173,150 net of the same fee. The private tranche is amortized over ten years; at fifteen years, the longer of the two terms in one lender's graduate loan disclosure current on September 15, 2026, the residuals at the $43,200 budget are $6,816, negative $1,204, negative $6,362 and negative $14,216. Because the Repayment Assistance Plan payment is a share of income rather than of balance, an annual residual does not capture the longer repayment that a larger federal balance implies.

Figure legends

Figure 1. Dietitians and nutritionists are paid least of the seven clinical occupations compared. Mean annual wage and the current entry credential for each occupation, Occupational Employment and Wage Statistics, May 2025 release, national estimates. Source and basis printed inside the image: the units, the source with its release and retrieval dates, and the basis, an all-employer survey that counts jobs rather than credential holders, with annual means computed at a standard work year of 2,080 hours and the credential tier given as the occupation's current entry requirement rather than the credentials held by the measured workforce. The image also states that the survey publishes no covariance between two means, so no interval is attached to the $10,170 difference between respiratory therapy and dietetics.

Alt text: Seven clinical occupations ranked by mean annual wage for May 2025. Dietitians and nutritionists are lowest at $77,130, below respiratory therapists at $87,300, whose entry credential is an associate's degree, and below physical therapists at the top at $105,280. Each bar carries the occupation's current entry credential, and the master's requirement for dietetics took effect on January 1, 2024.

Figure 2. Dietitian pay sits at or near registered-nurse pay in England and Canada, and below it in the United States. Ratio of dietitian to registered-nurse pay at the points listed in Table 2, purchasing-power adjusted at 2024 parities. Source and basis printed inside the image: the units, each source with its effective date, and the basis, that the three rows are an employer-reported survey mean, a point on a national pay scale and a national survey median, so the levels are not strictly comparable and the ratios are read as context. The image also states that England's ratio of 1.00 is parity by band assignment rather than a measured similarity, that neither comparator requires a master's degree to enter dietetics, and which two economies were dropped from an earlier version and why.

Alt text: Dietitian pay divided by registered-nurse pay at the points read in three economies. The United States is lowest at 0.76, against Canada at 0.96 and England at 1.00, where both occupations are read at the same pay band.

Figure 3. At their point estimates, twelve of twelve residual-income cells are negative at the illustrative principal. Residual income a year by interest rate, tax proxy and living budget, at the $161,000 illustrative principal and the $77,130 mean wage. The living budgets are the Consumer Expenditure Survey 2024 pair, $37,400 and $43,200 (decision D5, September 16, 2026); the earlier $35,000 and $42,000 pair had no traceable source and is retired, and on those retired budgets two of the twelve cells were positive. Source and basis printed inside the image: the units and the residual-income formula, the source and the date the model was regenerated, and the basis, that this is standard amortization of the whole principal and therefore an upper-bound case, and that the principal is the author's illustrative assumption rather than a measured program cost, while the living budgets are derived from the Consumer Expenditure Survey for 2024. The image also states that both tax proxies are applied flat to the gross wage and that, at 2026 federal parameters, an unmarried filer taking the standard deduction owes 18.2 percent of gross at this wage in federal income tax plus payroll tax, so the 22 percent proxy sits 3.8 points of gross above that and the 28 percent proxy 9.8 points above it, and that carrying the wage's relative standard error through the model gives a 95 percent interval of about $472 either side of each cell at the 22 percent proxy and about $435 at the 28 percent proxy, that the living budgets' own survey error, which the published tables allow only to be bounded, is about $1,133 to $2,267 either side, and that the illustrative principal is the largest source of uncertainty.

Alt text: Twelve residual-income cells by interest rate and tax proxy against two living budgets, at the $161,000 illustrative principal and the $77,130 mean wage. All twelve are negative, from minus $679 at the 8 percent rate under the 22 percent tax proxy and the $37,400 living budget to minus $13,198 at the 10 percent rate under the 28 percent tax proxy and the $43,200 living budget. On the retired living budgets two cells were positive; the corrected Consumer Expenditure Survey budgets used here make every cell a shortfall.

Report 7

What the federal rulemaking record shows about dietetics and the professional-degree list, 2025 to 2026

The Dietetics Workforce Reports, Report 7, version 1.2 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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Released. September 29, 2026, version 1.0. Version 1.2, October 22, 2026, appends a dated correction and a dated update (see Corrections); no finding, quotation or figure of the analysis changed.

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In brief

What it asks. What did the public rulemaking record say about dietetics at each stage, and what reasons did the Department of Education give for leaving it off the professional-degree list?

What it finds. In its final rule of May 1, 2026, the Department said master's degrees leading to the registered dietitian credential fail its test for two reasons: some qualifying programs take as few as five years of postsecondary education, and longer ones end at the master's level, not the doctorate. It gave the same two reasons for social work. The record holds these stated reasons, not the deliberations behind them.

What it adds. The Department says degrees may be added to its list through future rulemaking, so any case for dietetics has to answer these reasons. This report sets them out in the Department's words, with the filings and the litigation that followed.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: every quotation was matched against an archived copy of its source and every search result against the deposited search log, and AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate of 5,705 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

Plain-language summary

How much a graduate student may borrow from the US government depends on whether the degree counts as a professional degree. In a 2026 rule, the Department of Education decided which degrees count; dietetics is not one of them. This report reads the government's public record of that decision.

Dietetics was not mentioned in the proposed rule, and almost no one raised it before the comment period. During that period the Academy of Nutrition and Dietetics asked the Department to recognize it as a professional degree. In the final rule, in a section headed "Nutrition and Dietetics", the Department gave two reasons for saying no: some programs that qualify a dietitian take as few as five years of study after high school, and the longer ones end in a master's degree rather than a doctorate. It gave the same reasons for social work. A court then paused part of the rule; the interim list of professional programs does not include dietetics.

The record holds the Department's stated reasons, not the discussions behind them.

The sentence to repeat: the Department's stated reasons for leaving dietetics off the list are on the public record, and any case for adding it has to answer them.

Abstract

Background. A 2025 statute set higher federal borrowing limits for professional degrees than for other graduate study, and the Department of Education's 2025 to 2026 rulemaking decided which degrees count. Dietetics does not. The Department says degrees may be added through future rulemaking, so any case for dietetics has to answer the reasons the record holds.

Objective. To set out what the public rulemaking record says about nutrition and dietetics at each stage, and the reasons the Department gave.

Methods. A documentary analysis of the statute, the Federal Register notices, the hearing transcripts, the rulemaking docket, the final rule's preamble, the court filings and the Federal Student Aid announcements, searched on dated occasions in ten sources in September 2026; every quotation was matched against an archived copy of its source.

Results. Dietetics was not named in the proposed rule, and no speaker at the public hearing and no posted comment on its notice was found to address it apart from one individual comment. In the comment period the Academy of Nutrition and Dietetics filed a letter asking that nutrition and dietetics be recognized as a professional degree. In the final rule of May 1, 2026 (91 FR 23805 to 23807) the Department said master's degrees leading to the registered dietitian credential fail its test because some qualifying programs take as few as five years of postsecondary education and longer ones end at the master's rather than the doctoral level; it gave the same two reasons for social work. A court stayed part of the definition on June 24, 2026, and no dietetics code appears on either list in Federal Student Aid's interim announcement.

Conclusions. The record holds the Department's stated reasons, not the deliberations behind them. Any case for adding dietetics to the list has to answer those reasons.

Keywords: documentary analysis; federal rulemaking; student financial aid; professional degree; dietetics; administrative record

Key findings

- **The Department's reasons.** In its final rule of May 1, 2026 (91 FR 23805 to 23807), the Department said master's degrees leading to the registered dietitian credential do not meet its test for two reasons: some qualifying programs take as few as five years of postsecondary education, and longer ones end at the master's rather than the doctoral level. It gave the same two reasons for social work (Table 6).
- **Before the comment period.** Dietetics was not named in the proposed rule of January 30, 2026, and no speaker at the hearing of August 7, 2025 and no posted comment on its notice was found to address it, apart from one comment by an individual (searched September 15, 2026; sections 3.3 and 3.4).
- **Who filed.** The Academy of Nutrition and Dietetics filed a letter dated March 2, 2026, asking the Department to recognize nutrition and dietetics as a professional degree program, and signed a coalition letter of forty-four organizations; the preamble names the Academy, the Commission on Dietetic Registration and the Accreditation Council for Education in Nutrition and Dietetics (section 6).
- **The stay and the interim list.** A federal court stayed part of the definition on June 24, 2026. Federal Student Aid's interim announcement of June 29, 2026, updated July 10, 2026, lists twenty-nine codes treated as professional and a second list of codes not so treated; no dietetics code is on either, and the announcement does not say in terms how a program on neither list is treated (section 9.4).

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of the profession whose classification this report documents. He owns Vitae Arete LLC, which publishes this report series and offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce, including commentary on the federal borrowing limits and the professional-degree classification as they apply to dietetics. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; this report documents federal instruments that bear on those proposals, including the borrowing limits, and it does not evaluate the proposals or supply evidence that they should be adopted. He filed public comments in the Medicare rulemaking discussed in Report 3 of this series, and he has advocated for changes in dietetics workforce and Medicare payment policy. He has shared workforce analyses with the Academy of Nutrition and Dietetics and provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He repays federal student loans and is enrolled in Public Service Loan Forgiveness. The Academy is one of the bodies whose filings this report documents, and the report describes what it filed without characterizing it. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He did not file a comment in this docket, did not speak at the public hearing of August 7, 2025, and did not serve on the negotiated rulemaking committee. Searches for his name, his company's name and his email address in Docket ID ED-2025-OPE-0944 and in the hearing docket, Docket ID ED-2025-OPE-0151, run through the regulations.gov application programming interface on September 15, 2026, returned no comment filed by him, while the same search returns his two filings in the Medicare docket named above; and his name does not appear in either of the Department's transcripts of the hearing of August 7, 2025, in any of the eighteen published transcripts of the committee's sessions, or on either version of the committee member list the Department

published. Those searches cover posted comment documents, and the Department states that submissions in a write-in campaign were posted as one representative sample with the campaign's total count, so they would not find a submission folded into such a sample. No document this report reads is his own filing. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this work (Use of AI tools). He is credentialed by the Commission on Dietetic Registration, which this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

Funding

The author received no financial support for the research, authorship or publication of this report.

Use of AI tools

The author used Claude models (Anthropic) to assist with source retrieval, computation checks and drafting. Every quotation is matched against the archived copy of the document it comes from by scripts that the data record deposits; the scripts read the author's working folder, so they do not run from the record alone (Data availability). The author takes responsibility for the whole of the text (How this report was checked).

1. Introduction

1.1 What this report documents, and why it exists

Report 6 of this series sets out what the professional-degree classification does to the arithmetic of entering dietetics: the wage ladder, the financing model and the list itself. It makes no claim about how the classification came about, because the analysis behind it could not support one. This report carries the other half. It documents the public record of the rulemaking in which the classification was set, and it stops where the record stops.

The distinction matters because the two questions need different evidence. A question about consequences is answered with wages, borrowing limits and program costs. A question about how a decision was reached is answered with filings, transcripts, notices and orders, or it is not answered at all. This report reads the second kind of evidence and reports what it says.

1.2 What a reader outside the United States needs to know first

In the United States a student pays what the institution charges and may borrow the difference, and for graduate study the lender is ordinarily the federal government, which lends directly to students under the Higher Education Act of 1965. Until 2026 such a student could borrow up to the full cost of attending, with no ceiling on the total. Public Law 119-21, approved July 4, 2025, ended that and set fixed ceilings in its place (139 Stat. 334).

There are two pairs of ceilings, and which pair applies depends on how the government classifies the degree. In the Department of Education's words in the final rule of May 1, 2026, "Graduate students may borrow $20,500 annually with an aggregate limit of $100,000. Professional students may borrow $50,000 annually with an aggregate limit of $200,000" (91 FR 23866, meaning volume 91 of the Federal Register at page 23866). A lifetime ceiling of $257,500 covers everything a student borrows (139 Stat. 336). Anything above a ceiling comes from savings, family, earnings, or a private lender on commercial terms. The limits apply from July 1 2026 (139 Stat. 334), and the regulations took effect the same day (91 FR 23768).

Which programs count as professional is not settled by the profession, by the body that accredits its programs, or by the university that teaches them. Congress wrote no definition of its own: it pointed to one already sitting in the Department's regulations, at section 668.2 of title 34 of the Code of Federal Regulations as that text stood on July 4, 2025 (139 Stat. 335), and left the Department to apply it.

A federal agency cannot simply announce such a regulation. Under the Administrative Procedure Act it must publish a proposal in the Federal Register, the government's daily gazette of official notices, must give interested persons an opportunity to comment, and on adopting the rule must "incorporate in the rules adopted a concise general statement of their basis and purpose" (5 U.S.C. 553, meaning title 5 of the United States Code, section 553). For student aid the Higher Education Act of 1965 requires more: public involvement in developing the proposal, and a negotiated rulemaking committee before it (20 U.S.C. 1098a; 91 FR 23769). That sequence, a hearing, a committee, a proposal, a comment period and then a final rule answering the comments, is the record this report reads (91 FR 23771).

1.3 Genre, and the two claims this report makes

This is a documentary report. It makes two kinds of claim and no others: that a named document, issued by a named body on a named date, says a quoted thing; and that a search described by its scope, source and date did or did not find a document of a stated kind. It makes no causal claim, no claim about anyone's reasons, and no claim about what any body believed, intended or wanted.

How the citations work is explained in Appendix F.

2. Sources and method

2.1 What was searched, where and when

Every search behind this report is recorded, and every statement in it that something was not found points to one of those records, except the two described below. Appendix B is that record: 129 rows, one per search, each giving the source, the query exactly as it was run, the date and time of the run, the number of results, what was kept, and, where the search underwrites an absence statement in the text, the sentence it underwrites. Two

checks are not rows of it: the lookups for one article, described in the note at the end of the Glossary, and the search of one circulated letter for phrases that name a sponsor, described in section 6.2. Version 1.1 of the data record holds the task files that record them, `code/analysis/D17/BLOCKED.md` and `code/analysis/D08/RESULTS.md`.

The searches were run on September 15 and 16, 2026, across ten sources, apart from the 13 rows of Appendix B dated September 25 and 29, 2026. The Federal Register application programming interface and its full-text service supplied the notices and rules, their metadata and their printed page ranges. The Government Publishing Office's GovInfo service supplied the statute as enacted and a second copy of each Federal Register document, so that every page attribution could be confirmed on a paginated copy. The electronic Code of Federal Regulations supplied the incorporated definition as it stood on July 4, 2025 and the section as currently codified, with the amendment history of each. The federal rulemaking portal, regulations.gov, was read through its public interface for developers for the two dockets in this record, Docket ID ED-2025-OPE-0944 for the proposed and final rules and Docket ID ED-2025-OPE-0151 for the 2025 public hearing. The Department of Education's own negotiated rulemaking page supplied the committee's published documents, all 149 of them. The courts' records service supplied the dockets and filed documents of five cases. Federal Student Aid's own site supplied the interim list, and that body's own sitemap supplied the index of its 6,920 electronic announcements. The National Center for Education Statistics supplied the program classification. The Internet Archive supplied captures where a page had changed or would not serve itself to a request. And the websites of the organizations whose filings this report documents supplied the letters and statements they publish themselves.

Three properties of the log matter for reading it. Some rows are single queries and some are sweeps of a whole corpus, and a sweep is one row: the search of the committee's published record, for example, is one row covering 149 documents and 29,331,709 characters of text, with the per-document detail deposited separately. Controls are logged beside the searches they control, because a query that returns nothing proves nothing unless the same query returns something where something exists. And a row records only what a search returned on a date. It is never a statement that a document does not exist, and nothing in this report treats it as one.

2.2 What is in the record and what is not retrievable

Two things have to be kept apart, and this report keeps them in two lists. The first holds documents that were identified and could not be read. The second holds classes of material that are not public at all. A document in the first list exists, and was not obtained on the date stated. A class in the second would not be reached by any amount of searching, because it is not a public record. Neither list is evidence that anything was or was not done.

Identified and not obtained. Each entry gives the reason and the date of the attempt. No account was created for any of them, no challenge was solved, and no paywall was circumvented.

Document	Reason	Date of the attempt
Academy of Nutrition and Dietetics, a press release on the professional-degree question	The body's own site answered every request with a single-sign-on redirect and served no page content; the capture index held no capture of that address	September 16, 2026
Accreditation Council for Education in Nutrition and Dietetics, its pages on the body's own site	The same redirect; no page content served	September 16, 2026
American Occupational Therapy Association, two advocacy pages	The site answered with a bot-protection challenge; a capture of one of the two pages existed and was not retrieved, the capture service being intermittently unavailable during the run	September 16, 2026
Association of American Medical Colleges, a comment letter on the body's own site	The site answered with a bot-protection challenge; the capture index returned no capture on the queries run	September 16, 2026
American Veterinary Medical Association, a page on the loan changes	Bot-protection challenge; no page content served	September 16, 2026
American Bar Association, an item on the rule's effect on the legal profession	The site answered the request with HTTP 403 Forbidden	September 16, 2026
Forty-three of the sixty-seven numbered entries on the two consolidated court dockets, including the three entries dated September 3 and 4, 2026	Held behind the federal courts' filing-fee system and not in the free archive. No account was made and none was sought	September 16, 2026
The administrative record the court ordered produced by September 4, 2026	The docket records a notice filed that day whose document is behind the same fee wall. This report does not say that the notice is the administrative record, because the document was not read	September 16, 2026
The amicus curiae brief on the lead docket	Retrievable, and deliberately not retrieved. The report records that the brief was filed and by whom, from the docket, and makes no claim about its contents	September 16, 2026
Eighteen video recordings of the negotiated rulemaking committee's meetings	Video, with no text to search. The Department publishes a transcript of every meeting, and all eighteen transcripts were retrieved and searched	September 16, 2026
Federal Student Aid's on-site listing of its electronic announcements	The listing is rendered by script and returned no announcement link to a plain request. The index was read instead from the same body's own sitemap, which is served as a file	September 16, 2026

Document	Reason	Date of the attempt
Electronic Announcement GENERAL-26-42 as it stood between June 30 and July 17, 2026	The address it occupied before the update now returns a permanent redirect. The capture index holds captures of that address on June 30, July 1 and July 4, 2026, and of the updated address from July 17, 2026 (found September 25, 2026). The update of July 10, 2026, is therefore bracketed by captures rather than observed	September 16, 2026
The Commission on Dietetic Registration's examination eligibility page as it stood on April 16, 2026, the date the Department gives for consulting it	The capture index holds captures on February 13, March 5, March 8 and March 9, 2026, and on April 30, 2026, at the same address with a trailing slash, found September 25, 2026, after the search of September 16 missed it. The captures on either side of April 16 and the live page are used, and the report says so in those terms	September 16, 2026
The 219 six-digit program classification codes the non-Federal negotiators' proposal would have covered	The Department states the number at 91 FR 23868 and the published record does not list the codes, searched on September 16, 2026	September 16, 2026

Four routes refused a scripted request or required credentials, and none of them cost this report a document, because a second route answered the same question in each case. The courts' records service required credentials on one interface and answered the same questions on another that needs none; its website search blocks scripted requests, and was not needed; partway through one run it began answering automated requests for docket pages with a firewall challenge, which was not bypassed, solved or worked around, and the copies used are those retrieved earlier the same day by ordinary request, each verified to carry its own docket number and caption before being accepted; and a federal search service returned a rate-limit refusal to its public demonstration key, where the documents were in any case already held with the court's own filing stamp on every page.

Not public at all. These are not gaps in the search. They are categories of material that a public record does not contain, and a reader should not expect this report to reach them.

- What was said in caucus during the negotiated rulemaking. The committee's own protocols provide that caucuses are not open to the public, and no caucus record is published.
- Internal deliberations of the Department, and documents prepared before a decision was made.
- Private communications between any organization and the Department, or between organizations.
- The reasons any person or body had for acting or not acting, and what weight any submission carried.
- How the 80,793 comments the Department reports receiving divide between campaign submissions, bundled submissions and individual ones. The Department states how each kind was posted and counted, at 91 FR 23771, and the split itself is not in the record as read here.

Where this report reaches the edge of the first list it says a document could not be read. Where it reaches the edge of the second it says the record does not show the thing at all. It never writes either as the other.

2.3 How quotations were checked

Every quotation in this report was checked against the archived copy of the document it comes from. Not against a secondary account of it, not against an earlier draft, and not against memory. The check was run by script over the assembled text and the archived copies on September 16, 2026, and every result the script flagged was then read by hand against the page.

The check has two parts and they are kept separate. The words come first. Each quotation is matched character for character against the archived text of the document it is attributed to, after one declared typographic fold: the curly quotation marks of a printed page, the doubled single marks the Federal Register uses for a quotation inside a quotation, and the doubled hyphens its plain-text edition uses where the printed page sets a dash are all read as their plain forms, and any run of white space is read as a single space. The fold changes no word. Where a quotation carries a bracketed alteration, it is split at that point and each part has to appear, in order, inside one passage of the source; the unedited original of that passage is recorded beside it in the register, so a reader can see exactly what was altered. Where a quotation runs across a printed page break, or drops a footnote reference number the original prints, the register says so rather than passing it silently.

The locators come second. Every printed page is confirmed on the paginated Federal Register copy, the one that carries the page number stamped on the page itself, and never on the page markers in the plain-text edition, which fall in different places and are not the printed pagination. Before any page was used, the stamped number on each of the 134 printed pages of the final rule was read off the paginated copy and checked to run in unbroken sequence from 23768 to 23901. A quotation taken from a court record or a hearing transcript is located on a page of the archived copy in the same way. A quotation from an agency web page or a data file has no printed pagination and is cited by document and date instead, and so is the one quotation in this report taken from a section of the Code of Federal Regulations, which has no Federal Register page of its own; section 4.1 states that convention where it is used.

522 quotations were checked in this way, across 574 registered spans, the remaining fifty-two being query strings printed in the search log and registered as queries rather than as quotations. Every one of the 522 matched the archived text, and every Federal Register locator was confirmed on the page the report names. Any quotation that could not be matched was corrected against the source or removed before release; none was softened or left in place with a hedge. Appendix D is a reproduction of a public-domain federal document rather than a quotation, and its paragraphs were checked the same way, against both the plain-text edition and the printed page.

The register of the final text is deposited with version 1.1 of the data record, as `D19_quotation_register_final_text.csv`: one row for each of the 574 spans, giving, where they apply, the document with its issuing body, number and date, the locator, the archived file and that file's SHA-256, and in every row the date of the check. The register in version 1.0 of the data record is the run of September 16, 2026, which preceded the last corrections to the text: six of its rows are marked as failing, and the register of the final text supersedes it. Every archived file that carries a recorded checksum was recomputed on September 16, 2026, and all but twenty-three matched; Appendix A describes the twenty-three, and the register marks each in its `on_disk` column. The archived files the register names are deposited where they are federal documents, and are held by the author, with their SHA-256, where other bodies published them.

2.4 Sources

The document register records each archived copy with its issuing body, the address it was retrieved from, the retrieval date and time and its SHA-256 hash, each where it was logged, and with the size of the copy in bytes, the task that retrieved it and, in version 1.1 of the data record, the path at which that copy sits in the deposit. The register has no column for a title, an identifier, a date of the document or the pages read, though its file names and notes describe some documents; the report gives those where it cites the document, and Appendix A gives them for the rule this report is about. The register runs to 1,013 rows, one for each archived copy that a task's retrieval log listed when the register was assembled on September 16, 2026, and version 1.1 of the data record carries it with rows added for the copies read after that date and for deposited files it did not list; the document behind every quotation in the report is a row of that copy. It is deposited with the data rather than printed in full; Appendix A prints its head and its counts, and names the files that carry every row. The register is the report's inventory of archived copies. The comments on the hearing notice were read through the portal and not saved (section 3.4), and a document that was sought and not obtained appears instead in section 2.2 with the reason and the date of the attempt. Federal documents and federal court records are redistributed in the deposit as archived copies, not as a claim of new rights in them, except eleven responses from the regulations.gov and CourtListener programming interfaces, which are identified by their SHA-256 and, where the register recorded them, their address and retrieval time, two of them with a reduced file in place of the full response; material published by other bodies is identified by its hash and, where one was logged, its address, and is quoted only briefly.

3. The instruments, in order

3.1 The statute

Congress set the borrowing limits. Which limit applies to a given program was left to the definition described in section 4. Section 81001 of Public Law 119-21, approved July 4, 2025, amended section 455(a) of the Higher Education Act of 1965 (20 U.S.C. 1087e(a)). It is printed at 139 Stat. 334 to 337 and is headed "ESTABLISHMENT OF LOAN LIMITS FOR GRADUATE AND PROFESSIONAL STUDENTS AND PARENT BORROWERS; TERMINATION OF GRADUATE AND PROFESSIONAL PLUS LOANS" (139 Stat. 334).

On borrowing in a single year, the statute provides that "a graduate student, who is not a professional student, may borrow in any academic year or its equivalent shall be $20,500" and that "a professional student may borrow in any academic year or its equivalent shall be $50,000" (139 Stat. 334). On cumulative borrowing, a graduate student "who is not (and has not been) a professional student" may borrow $100,000, and a professional student "who is not (and has not been) a graduate student" may borrow $200,000 (139 Stat. 335). A student who has been both borrows against the higher figure less what was borrowed in the other capacity. A separate ceiling covers everything a student may borrow over a lifetime, which "shall be $257,500, without regard to any amounts repaid, forgiven, canceled, or otherwise discharged on any such loan" (139 Stat. 336). These are limits on what may be borrowed from the federal government, not limits on what a program may charge. A student who needs more than the limit meets the difference from savings, family, earnings, or a private lender on commercial terms.

The statute wrote no definition of its own. It pointed to one already sitting in the Department's regulations. A professional student is "a student enrolled in a program of study that awards a professional degree, as defined under section 668.2 of title 34, Code of Federal Regulations (as in effect on the date of enactment of this paragraph), upon completion of the program", and a graduate student is "a student enrolled in a program of study that awards a graduate credential (other than a professional degree) upon completion of the program" (both 139 Stat. 335). The date of enactment is July 4, 2025, so the text the statute fixed in place is the regulation as it stood that day. Section 4.1 sets out that text.

The limits apply "beginning on July 1, 2026" (139 Stat. 334 and 335). The statute carries an interim exception at 139 Stat. 336 to 337: a student who, "as of June 30, 2026", was enrolled in a program and had already borrowed for it keeps the earlier limits for the period the statute calls the expected time to credential, which is the lesser of three academic years or the time remaining in the program.

Two points of citation follow the figures through this report. The lifetime ceiling is exact in the statute and approximate in the Department's later restatement of it: the proposed rule describes "approximately $257,500" (91 FR 4256) where the Act says "$257,500" (139 Stat. 336). This report uses the statutory figure. And the same Act carries two names in this record. The proposed rule of January 30, 2026, calls it the One Big Beautiful Bill Act; the final rule of May 1, 2026, records that "[t]he Department previously referred to the Working Families Tax Cuts Act as the 'One Big Beautiful Bill Act,' including in the Notice of Proposed Rulemaking published on January 30, 2026" (91 FR 23768). This report cites the Act as Public Law 119-21 throughout and keeps whichever name a quoted passage uses.

3.2 The timeline

Table 1. Every dated step in the record, from the statute to the interim list.

Date	Issuing body	Document	What the document did	Archived copy
July 4, 2025	119th Congress	Public Law 119-21, section 81001, 139 Stat. 334 to 337	Set the annual and aggregate borrowing limits for graduate and for professional students, and defined a professional student by reference to the definition of professional degree at 34 CFR 668.2 as in effect on the date of enactment	`PLAW-119publ21.pdf`, SHA-256 42f86c3d408bccb1…
July 25, 2025	US Department of Education, Office of Postsecondary Education	Federal Register document 2025-13998, 90 FR 35261 to 35264	Announced a virtual public hearing for August 7, 2025 and an intention to establish two negotiated rulemaking committees, and opened a comment period for the hearing record	`FR_2025-13998_paginated.pdf`, SHA-256 5547fa29699f7bf7…
July 29, 2025	US Department of Education	Federal Register document 2025-14333, 90 FR 35652	Corrected the docket identifier printed on the hearing notice, from ED-2025-0151 to ED-2025-OPE-0151	`FR_2025-14333_paginated.pdf`, SHA-256 fc2814628545o3d0…
August 7, 2025	US Department of Education	Virtual public hearing; transcripts of the morning and afternoon sessions	The hearing was held from 9:00 a.m. to 4:00 p.m. with a recess from noon to 1:00 p.m.; the Department states that 57 individuals testified (91 FR 4258) and that all who requested to speak were accommodated (91 FR 23771)	2 archived copies; each file and its full SHA-256 in Appendix A and in `D16_table1_sources.csv`
August 25, 2025	US Department of Education	Close of the comment period on the hearing notice (Federal Register document 2025-13998)	Written comments for the hearing record were accepted through this date; the Department reports 1,846 comments on the public hearing notice (91 FR 23771) and, in the proposed rule, 1,864 written comments on the same notice (91 FR 4258)	`FR_2025-13998_fulltext.txt`, SHA-256 fd39ac220264753e…
September 29 to October 3, 2025	US Department of Education	Reimagining and Improving Student Education (RISE) Committee, session one; ten session transcripts published	The committee met for the first of its two scheduled sessions, and the Department published a transcript for each half-day session	10 archived copies; each file and its full SHA-256 in Appendix A and in `D16_table1_sources.csv`
September 30, 2025	US Department of Education	Federal Register document 2025-19019, 90 FR 46778 to 46779	Announced contingent virtual meeting dates of October 15 to 17, 2025, for use only in the event of an appropriation lapse preventing the committee from meeting in person	`FR_2025-19019_paginated.pdf`, SHA-256 78474c83bcd44c61…
October 10, 2025	Four non-Federal negotiators, published by the US Department of Education	Revised proposed definition of professional degree, with an accompanying memorandum by Alex Holt and Andrew Gillen	Submitted to the committee an alternative definition of professional degree, keyed to a two-digit program classification group and a program length of at least 80 credit hours, and adding clinical psychology	2 archived copies; each file and its full SHA-256 in Appendix A and in `D16_table1_sources.csv`

Date	Issuing body	Document	What the document did	Archived copy
November 3 to 6, 2025	US Department of Education	RISE Committee, session two; eight session transcripts published	The committee met for its second session and, as the Department's committee page records, concluded its activities on Thursday November 6, 2025; the final rule states that the committee reached consensus on the entirety of the regulatory text (91 FR 23769)	8 archived copies; each file and its full SHA-256 in Appendix A and in `D16_table1_sources.csv`
January 30, 2026	US Department of Education, Office of Postsecondary Education	Federal Register document 2026-01912, 91 FR 4254 to 4346	Proposed the definitions of professional student and professional degree, set out the Department's stated reasons, and invited comment, under Docket ID ED-2025-OPE-0944	`FR_2026-01912_paginated.pdf`, SHA-256 cd0f2fe35dec8ee8…
March 2, 2026	US Department of Education	Close of the comment period on the proposed rule (Federal Register document 2026-01912)	Comments were due on or before this date, as the proposed rule's DATES caption states (91 FR 4254); the Department reports receiving 80,793 comments on the proposed regulations (91 FR 23771)	`FR_2026-01912_fulltext.txt`, SHA-256 c9d34dc1c2754b98…
May 1, 2026	US Department of Education, Office of Postsecondary Education	Federal Register document 2026-08556, 91 FR 23768 to 23901; Regulation Identifier Number 1840-AD98	Adopted the definitions in final form and set out the Department's analysis of public comment across 91 FR 23771 to 23847	`FR_2026-08556_paginated.pdf`, SHA-256 21ef3bab376f8573…
May 21, 2026	Plaintiffs in No. 1:26-cv-01780	Complaint, ECF No. 1, American Association of Nurse Practitioners v. McMahon, No. 1:26-cv-01780 (D.D.C.)	Six organizations filed a complaint against the Secretary and the Department; the docket records the cause as 05:702 Administrative Procedure Act	`CL_dcd_1780_entry01_complaint.pdf`, SHA-256 571290d2b3a70cdc…
June 3, 2026	Plaintiffs in No. 1:26-cv-01941	Complaint, ECF No. 1, PA Education Association v. United States Department of Education, No. 1:26-cv-01941 (D.D.C.)	Two organizations filed a complaint against the same defendants; the docket records the cause as 05:0706 Judicial Review of Agency Actions	`CL_dcd_1941_entry01_complaint.pdf`, SHA-256 3fcbb65c1315194e…
June 5, 2026	US District Court for the District of Columbia	Minute order, No. 1:26-cv-01941, consolidating the two cases	Consolidated No. 1:26-cv-01941 with No. 1:26-cv-01780 under Rule 42(a)(2) of the Federal Rules of Civil Procedure and directed the parties to file all documents in the lead case only	`D12_CL_docket_dcd_1941.html`, SHA-256 2c47f4fdcbe238d2…
June 24, 2026	US District Court for the District of Columbia	Order, ECF No. 45, in consolidated cases No. 1:26-cv-01780 and No. 1:26-cv-01941	Preliminarily set aside and stayed part (i) of the definition and the supervision requirement stated in the preamble, and denied the other requests, to remain in effect until further order of the court	`CL_dcd_1941_entry10_order.pdf`, SHA-256 f6952b3627853110…
June 29, 2026	US Department of Education, Federal Student Aid	Electronic Announcement GENERAL-26-42, as filed with the court at ECF No. 47-1	Published an interim list of twenty-nine six-digit program classification codes treated as awarding professional degrees for the duration of the stay, and a separate list of twenty-five codes not so treated	`CL_dcd_1780_entry47_1_exhibit_EA.pdf`, SHA-256 8679ed4508ff23d8…

Date	Issuing body	Document	What the document did	Archived copy
July 1, 2026	US Department of Education	Effective date of the final rule (Federal Register document 2026-08556)	The date on which the final rule states it is effective: "This final rule is effective on July 1, 2026." (91 FR 23768)	`FR_2026-08556_fulltext.txt`, SHA-256 6a67d13808e945b5…
July 10, 2026	US Department of Education, Federal Student Aid	Electronic Announcement GENERAL-26-42 as updated, filed with the court at ECF No. 50-1	Amended three entries in the interim list and added a footnote extending two nursing codes to the same four-digit group; no code was added to or removed from either list	`CL_dcd_1780_entry50_1_exhibit_updated_EA.pdf`, SHA-256 00e8e5e9579d7d33…
July 20, 2026	US District Court for the District of Columbia	Minute order (scheduling order) in No. 1:26-cv-01780	Set dates for supplemental pleadings, for production of the administrative record and for summary judgment briefing, running to December 4, 2026	`D12_CL_docket_dcd_1780.html`, SHA-256 15f4e0adbe6d0e91…
August 3, 2026	Plaintiffs in No. 1:26-cv-01780	Amended and supplemental complaint, ECF No. 53	Filed an amended and supplemental complaint against all defendants, which the court allowed by minute order the same day	`CL_dcd_1780_entry53_amended_complaint.pdf`, SHA-256 8366992a04fofac6…

Units. One row is one dated step evidenced by a document; the table has twenty-one rows resting on thirty-nine archived copies. It is not a count of events, of meetings or of decisions.

Basis. Dates are the date printed on the document or, for a meeting, a closing date or an effective date, the date the document sets. Where a step spans days, the row gives the span and sorts on its first day. A figure or count inside a clause is the issuing body's own and carries its locator; nothing in this table is derived from those figures. Court filings are identified by the number the court's electronic filing system gives them, which this report prints as ECF No. followed by that number.

Source. Every row was retrieved and confirmed at its own primary source by the task named in `D16_table1.csv`, which version 1.1 of the data record deposits with `D16_table1_sources.csv` under `code/analysis/D16/`; this table is rendered from the document register, the shared retrieval log (deposited as `documents/rulemaking/DOWNLOADS.csv`) together with each retrieving task's own log (deposited as `DOWNLOADS.csv` in the task's folder under `code/analysis/`), and every SHA-256 in it was recomputed from the archived file in the same run. The two Federal Student Aid rows are keyed to the copies the Department filed with the court, because the live announcement page carries a per-request block and has no reproducible digest. Register as at September 16, 2026 (coordinated universal time); table rendered September 16, 2026.

3.3 The notice of proposed rulemaking

The proposed rule was published at 91 FR 4254 on January 30, 2026, under Docket ID ED-2025-OPE-0944 (US Department of Education, document 2026-01912). The proposed rule runs to ninety-three printed pages, 91 FR 4254 to 4346, and invited comment by March 2, 2026.

In the preamble the Department set out what it would do with the statutory cross-reference. It would "define professional student to mean a student enrolled in a program of study that awards a professional degree upon completion of the program", and in doing so would "apply the definition of a professional degree in 34 CFR 668.2 that was in effect on July 4, 2025" (91 FR 4260). It reproduced that regulatory text in full at 91 FR 4262 and described it as containing "a three-part test": completion of the academic requirements for beginning practice in a given profession, a level of skill beyond that normally required for a bachelor's degree, and licensure generally required. It named the canon it was applying, that "[t]he interpretive canon noscitur a sociis is instructive in this context" (91 FR 4263), and recorded that "[t]he definition of professional degree has not been further amended since November 1, 2007" (91 FR 4263).

The regulatory text the Department proposed added two elements to the definition it incorporated. At 91 FR 4332 a professional degree is one that "[s]ignifies both completion of the academic requirements for beginning practice in a given profession, and a level of professional skill beyond that normally required for a bachelor's degree"; that "[i]s generally at the doctoral level, and that requires at least six academic years of postsecondary education coursework for completion, including at least two years of post-baccalaureate level coursework"; that "[g]enerally requires professional licensure to begin practice"; and that "[i]ncludes a four-digit program CIP code, as assigned by the institution or determined by the Secretary, in the same intermediate group as the fields listed in paragraph (2)(i) of this definition." The abbreviation is the Department's own: a "four-digit program Classification of Instructional Program (CIP) code" (91 FR 4260), a level of the federal taxonomy by which every program that receives federal student aid reports its field of study. The second and fourth of those four elements have no counterpart in the incorporated definition, which already stated that professional licensure is generally required; section 4.2 traces each to the basis the Department states for it. The fields listed are the ten in the pre-existing regulation together with "Clinical Psychology (Psy.D. or Ph.D.)" (91 FR 4261 and 4332). The Department invited comment on exactly this point: "The Department seeks comment on its analysis relating to the professional degrees it included in or excluded from the professional student definition." (91 FR 4261).

Two of the stated reasons are cited repeatedly in the comment responses a year later. On supervision, the Department wrote that it "is hesitant to classify degrees that lead to employment that must be supervised by a licensed professional, and cannot be performed independently, as professional degrees within this definition" (91 FR 4265). On physical therapy, it wrote "Physical therapy (DPT): The Department determined the DPT would not

satisfy the professional degree definition" (91 FR 4266), observing that "the progression from a master's level degree to the DPT degree is a relatively modern development" and that "[a]s a result, the Department has never included these degrees in the definition of professional degree" (91 FR 4266).

Nutrition and dietetics are not named anywhere in the proposed rule. A case-insensitive search of the whole document for nutrition, nutritional, dietetic, dietetics, dietitian, dietician, nutritionist and registered dietitian returned no match. The search was run on September 15, 2026, against two independent copies, the Federal Register plain-text copy and the paginated copy issued by the Government Publishing Office, with the same result in each. In the same file the same method finds professional degree 135 times, chiropractic nine times and podiatry nine times, so the search would have returned dietetics had the word been there. The proposed rule does name the fields the Department had considered and did not treat as professional degrees, among them business, education, occupational therapy, naturopathic medicine, nursing, physical therapy, physician assistant, public health, social work and pilot training (91 FR 4265 to 4267). Dietetics is not among them. What the document does not contain is any account of which fields were examined and passed over without mention, so the silence carries no further meaning here, and this report draws none from it.

3.4 The public hearing and the comment periods

The hearing was announced in the Federal Register. On Friday July 25, 2025, the Department's Office of Postsecondary Education published "Public Hearing; Negotiated Rulemaking Committees", document 2025-13998, at 90 FR 35261 to 35264, under the action "Intent to establish negotiated rulemaking committees." The notice printed its docket identifier as ED-2025-0151. Four days later, on July 29, 2025, the Department published a one-page correction, document 2025-14333, at 90 FR 35652, stating that "ED is requesting a correction to the Docket ID Number ED-2025-0151. Docket ID should read as ED-2025-OPE-0151" (90 FR 35652). Comments on the hearing notice therefore sit in docket ED-2025-OPE-0151, titled "2025 Virtual Public Hearing", which is not the docket that holds the proposed and final rules. A reader who searches one of those dockets has not searched the other.

The notice set the hearing for the following month: "We will hold a virtual public hearing on August 7, 2025, from 9:00 a.m. to 4:00 p.m. with a one-hour recess from noon to 1:00 p.m." (90 FR 35262). It was held online. Anyone wishing to speak had to register by noon, Eastern time, on July 28, 2025; "We will limit each participant to three minutes" and "An individual may make only one presentation at the virtual hearing" (both at 90 FR 35262). Registration was required even to observe (90 FR 35262). The notice undertook that "The Department will also post transcripts of the hearing on that site" (90 FR 35262), the site being the Department's page for the 2025 and 2026 negotiated rulemaking. Written comments for the hearing record were accepted "through August 25, 2025" (90 FR 35261), which is thirty-one days after publication. The notice also stated how it would post campaign submissions: where submissions appear to be duplicates or near duplicates of "comments prepared as part of a writing campaign", the Department "will post one representative sample comment along with the total comment count for that campaign" (90 FR 35261 to 35262). A document posted in this docket is therefore not the same thing as one submission, and not the same thing as one person.

The Department gave its own account of that stage nine months later, in the final rule, under the heading "Public Comment Period". It states that "the Department solicited public input through a public hearing held on August 7, 2025, from 9:00 a.m. to 4:00 p.m. Eastern Time, including a lunch break from 12:00 p.m. to 1:00 p.m.", that "All individuals who requested to speak were accommodated during the hearing", and that "The Department also solicited public comments for 30 days and received 1,846 comments on the public hearing notice, which informed the development of the proposed regulations" (all three at 91 FR 23771). That figure of 1,846 counts comments on the hearing notice of July 2025. It is not the count of comments on the proposed rule, and it is not a count of people.

Two figures the Department published for that same stage do not agree, and both are recorded here as printed. The proposed rule, published on January 30, 2026, states: "We received 1,864 written comments in response to the Federal Register notice" (91 FR 4258). The final rule, published on May 1, 2026, gives 1,846 (91 FR 23771). The two differ by eighteen and are a transposition of one another. Each was confirmed on its own printed page, and each is absent from the other document. This report does not say which is correct and offers no explanation for the difference; where it needs a figure for this stage it prints the Department's words with the document and the date attached. A second discrepancy sits in the same part of the record. The proposed rule cites the hearing notice at its correct place, 90 FR 35261 (91 FR 4257 to 4258), while the final rule, answering commenters who "advocated adding certain constituency groups in the negotiated rulemaking process, including certain health professionals", describes the same notice and cites it as 90 FR 31836 (91 FR 23773). Page 31836 of volume 90 falls inside a rule of the National Oceanic and Atmospheric Administration published on July 15, 2025. That too is recorded as printed and left unexplained.

The hearing itself is on the public record twice over. The Department published a transcript of each session, the morning running to 111 pages and the afternoon to forty-six, and a recording of each, on the page the notice named. Against the afternoon session that page states: "Session ended early as we accommodated all who requested to speak" (retrieved September 16, 2026). The Department reports that "A total of 57 individuals testified virtually at the hearing" (91 FR 4258). Counting the distinct speaker labels in the two transcripts, and setting aside the Department official who presided over both sessions, gives forty-one in the morning and sixteen in the afternoon, with no label appearing in both, so fifty-seven. That count is this report's own and counts labels rather than people, but it agrees with the Department's published figure. No separate list of speakers was found: the notice promises transcripts and no list, the Department's page offers a transcript and a recording for each session, and the hearing docket holds only two documents, the notice and its correction, all searched on September 15, 2026.

Nothing about nutrition or dietetics was found in that record. Both transcripts were searched on September 15, 2026, for thirteen terms, each anchored on word boundaries: nutrition, nutritional, nutritionist, nutritionists, dietetic, dietetics, dietitian, dietitians, dietician, dieticians, dietary, RDN and LDN. Neither transcript contains any of them. The comments filed on the hearing notice were searched the same day, through the federal rulemaking portal's programming interface, across the 1,124 comments then posted in docket ED-2025-OPE-0151. Of the twelve dietetics terms, only "dietitian" and "dietitians" returned anything, and both returned the same single comment, filed on August 22, 2025, by an individual with no

organization recorded, whose text describes the writer as a former registered dietitian who had returned to study in order to apply to medical school. Control terms run on the same docket on the same day returned 781 comments for "loan", 361 for "physician", forty-four for "nursing" and fourteen for "psychology", which shows the query reaches the record rather than returning nothing.

Two limits govern how that result may be read, and both were tested rather than assumed. Multi-word queries on that interface are not phrase searches: the nonsense query "zzqqxx academy" returns the same five comments as the single word "academy", so only single words can be relied on. And the index does not reach the text of attached documents: the word "nutritionists" appears in an attachment to one comment that was retrieved and read for this report, yet a query for it returns nothing. A letter filed only as an attachment would therefore not be found this way. Six of the comments returned by broader queries were retrieved in full and their attachments read, and none of them is a dietetics filing. What the record supports is therefore precise and limited: on September 15, 2026, no speaker at the hearing and no posted comment on its notice was found to address nutrition or dietetics, apart from the single individual comment described above. That is not a finding that no dietetics organization filed, and the difference between the 1,124 documents posted and the 1,846 comments the Department reports receiving, which the notice's own statement on writing campaigns explains, is one reason the stronger claim cannot be made from this docket.

The comment period on the proposed rule itself came later and was much larger. The proposed rule was published on January 30, 2026 and set its own deadline: "We must receive your comments on or before March 2, 2026" (91 FR 4254), thirty-one days later, March 1, 2026, having fallen on a Sunday. The Department describes it as "a 30-day public comment period, which is consistent with the Department's obligations under the APA" and states that "During that period, the Department received 80,793 public comments, many of which included detailed and substantive feedback" (both at 91 FR 23771). In a later passage it refers to "over 81,000 other commenters" (91 FR 23773). Where this report needs the count of comments on the proposed rule it prints 80,793, with that locator.

3.5 The negotiated rulemaking committee

Before proposing the rule, the Department was required by section 492 of the Higher Education Act (20 USC 1098a) to put draft regulations through negotiated rulemaking. In that process the Department seats a committee of people selected to represent affected constituencies, publishes draft regulatory text to it, and works toward consensus, which the establishing notice defines as the condition in which "no member of the committee dissents from the proposed regulations" (90 FR 35263).

The Department announced its intention to establish two committees in "Public Hearing; Negotiated Rulemaking Committees" (US Department of Education, Federal Register document 2025-13998, 90 FR 35261, published July 25, 2025), the same notice that announced the public hearing described in section 3.4. One committee, Reimagining and Improving Student Education (RISE), took the federal student loan provisions, including the loan limits and the definition of professional student that is this report's subject. The other, Accountability in Higher Education and Access through Demand-driven Workforce Pell, took accountability and Pell Grant provisions and is outside this report. A correction published four days later changed the docket identifier to ED-2025-OPE-0151 (document 2025-14333, 90 FR 35652, July 29, 2025). A third notice added contingent virtual meeting dates of October 15 to 17, 2025, to be used only if a lapse in appropriations prevented the committee from meeting in person on October 1 to 3 (document 2025-19019, 90 FR 46778, September 30, 2025).

One citation in the final rule does not resolve. The preamble states that "On July 25, 2025, the Department published a notice in the Federal Register (90 FR 31836) announcing its intention to establish a negotiated rulemaking committee" (91 FR 23773). The notice published that day begins at 90 FR 35261, and page 90 FR 31836 falls inside a rule issued by another agency ten days earlier (Commerce Department, National Oceanic and Atmospheric Administration, document 2025-13238, 90 FR 31800, July 15, 2025). Searched at federalregister.gov on September 16, 2026.

The notice named nine constituency groups for the RISE Committee: student loan borrowers; student loan borrowers who are veterans or service members, or groups representing them; legal assistance organizations, consumer advocates and civil rights groups representing students; state officials; public institutions of higher education; private nonprofit institutions; proprietary institutions; student loan servicers, collection agencies, lenders and guaranty agencies; and organizations representing taxpayers and the public interest (90 FR 35262 to 35263). The Department stated that it would "select participants with demonstrated experience in the relevant subjects under negotiation, in accordance with section 492(b)(1) of the HEA" (90 FR 35262). No health profession is named as a constituency, and the words nutrition, dietetics, dietitian and dietary do not appear anywhere in the notice, its correction or the contingent-dates notice; searched over the archived text and the paginated copies on September 16, 2026.

The Department published the committee's membership as a member list dated for the two sessions, and an updated list of September 25, 2025, that filled one vacancy. As that list names them, the non-Federal negotiators were:

- Legal assistance organizations that represent students and borrowers, consumer advocates, and civil rights groups that represent students: Ashley Naporlee, Lead Attorney, Consumer Protection Team, Legal Aid Society of San Diego (primary); Tamar Hoffman, Staff Attorney, Homeownership and Consumer Rights Unit, Community Legal Services of Philadelphia (alternate).
- Student loan servicers, collection agencies, lenders, and guaranty agencies: Alexander Ricci, National Council of Higher Education Resources, President (primary); Lori Hartung, Education Computer Systems, Inc., Regional Sales Executive (alternate).
- Organizations representing taxpayers and the public interest: Alexander Holt, Senior Advisor on Higher Education for the Committee for a Responsible Federal Budget (primary); Dr. Andrew Gillen, Cato Institute (alternate).
- Private nonprofit institutions of higher education: Jenna Colvin, Georgia Independent College Association, President (primary); Patti Kohler, Western Governors University Financial Aid Office, Vice President (alternate).
- Proprietary institutions of higher education: Andy Vaughn, Alliant Internation University, President and Chief Executive Officer (primary); Jeffrey Bodimer, Regulatory Compliance and Financial Aid, Vice President, Post University (alternate).
- Public institutions of higher education: Timothy B. King, Vice Provost for Student Success, Jacksonville State University (primary); Matthew Ellsworth, Director, Office of Financial Aid, Western Carolina University (alternate).

- State officials: Scott Kemp, Student Loan Advocate, State Council of Higher Education for Virginia (primary); Bennett Boggs, Missouri Department of Higher Education and Workforce Development, Commissioner (alternate).
- Student loan borrowers: Deborah Lilly, UnitedHealthcare, Senior Project Manager (primary); the alternate seat is listed as vacant on the first list and as Emeka Oguh, CEO, PeopleJoy, on the updated list of September 25, 2025.
- Student loan borrowers who are veterans, US military service members, or groups representing them: Faisal Sulman, Student Veterans of America, Legal Fellow (primary); Robert H. Carey, Jr., National Defense Committee (alternate).

The list also names Annmarie Weisman as facilitator and Jacob Lallo of the Office of General Counsel, both non-voting, and Tamy Abernathy of the Department as the Federal negotiator.

The committee met in two sessions. The notice scheduled session one for September 29 to October 3 2025 and session two for November 3 to 7, 2025 (90 FR 35263). The Department's page records that the committee "concluded it activities on Thursday November 6, 2025", and the final rule describes the sessions as running "from September 29 through October 3, 2025, and the second session being held November 3-6, 2025" (91 FR 23769). For each half-day meeting the Department published a transcript and a video recording: eighteen transcripts in all, ten for session one and eight for session two. Alongside them it published the committee protocols, an agenda for each session, the member lists, its own discussion drafts and revised regulatory text, data files prepared at the committee's request, and every document a negotiator submitted for distribution. The RISE section of the Department's page links 149 distinct documents, all of which were retrieved and archived on September 16, 2026.

The committee reached consensus. The protocols state that consensus "means there must be no dissent by any member of the committee", and the final rule states that "The Committee reached consensus on the entirety of the regulatory text" (91 FR 23769). One field was added to the enumerated list during the rulemaking. The Department states that "one change made during the RISE negotiated rulemaking that affected the definition of professional student was the expansion to define programs for that purpose at the 4-digit CIP level and to include Clinical Psychology" (91 FR 23863), and the committee's draft consensus text for 34 CFR 685.102, dated November 5, 2025, carries clinical psychology in the list of fields.

The non-Federal negotiators also put forward an alternative definition, which the final rule records as "a proposal from RISE Committee non-Federal negotiators that would define a professional student more broadly than the Department's definition" (91 FR 23868). The submission, "Revised proposed definition of professional degree", is dated October 10, 2025 and is attributed on the Department's page to Alex Holt, Andrew Gillen, Ashely Naporlee and Tamar Hoffman, the first two representing organizations representing taxpayers and the public interest, the second two the legal assistance constituency. It reads, as a redline of the existing definition in 34 CFR 668.2:

> The remaining professional degrees under this definition are those substantially similar to the examples listed above in both length and field of study, defined as a program of at least 80 credit hours and that is either classified within the same two-digit Classification of Instructional Programs (CIP) code of any of the degrees named above or as a degree in Clinical Psychology (Psy.D., etc.).

The memorandum that carries the proposal, cited at footnote 67 of the final rule, is "Memo on a Revised Professional Degree Definition and Aligning Definitions in the Code of Federal Regulations", submitted to the RISE Negotiated Rulemaking Committee by Alex Holt and Andrew Gillen of the taxpayers and public interest constituency, dated October 10, 2025. It reproduces an earlier memorandum of September 30, 2025, by the same two authors as an appendix. The final rule summarises the proposal as one that "would define a professional program as any program within the same two 2-digit CIP code as the 10 programs listed in section 668.2 (an"adjacent field") that also meets a program length requirement of at least 80 credit hours", adding clinical psychology, and states that it "includes programs in 219 unique 6-digit CIP codes (compared with 38 under the Department's definition)" (91 FR 23868). The record as published does not list those 219 codes, so which fields they cover cannot be read from it.

Searching all 149 archived committee documents on September 16, 2026, for the strings nutrition, dietet, dietit and dietar, without regard to case, across 29.3 million characters of extracted text, returns a hit in two of them. The first is a crosswalk of occupational codes to program codes submitted by a negotiator during session one, where the word appears twice, both times inside the title of a residency program in another field: "Nutrition Support Pharmacy Residency/Fellowship Program" (60.0825) and "Veterinary Nutrition Residency Program" (60.0308). The second is a data file the Department distributed before session two, "Data Request: DRT8244", a program-level extract of 193,714 rows for award year 2025, of which 364 rows at 228 institutions carry program codes in the 51.31 series: dietetics and dietitian (51.3101), clinical nutrition and nutritionist (51.3102), dietetic technician (51.3103), dietitian assistant (51.3104), and dietetics and clinical nutrition services, other (51.3199). No transcript, agenda, protocol, discussion draft, negotiator proposal or summary of changes contains any of the four strings; searched September 16, 2026. The Department's own list of candidate program codes, distributed on November 5, 2025, names forty-four six-digit codes in five two-digit groups, and no code in the 51.31 series appears on it; searched September 16, 2026.

What this record can and cannot show is worth stating plainly. It shows which documents were filed, by whom and on what date, what the Department published, and what words those documents do and do not contain. It does not show what was said in caucus, which the protocols closed to the public, and it does not show anyone's reasons.

3.6 The final rule

The final regulations were published at 91 FR 23768 on May 1, 2026 (US Department of Education, document 2026-08556; Docket ID ED-2025-OPE-0944; Regulation Identifier Number 1840-AD98), effective July 1, 2026. The rule occupies 91 FR 23768 to 23901, 134 pages, and appears as Part IV of the issue of May 1, 2026. Its preamble is organized in numbered parts, of which the sixth, "Analysis of Public Comment and Changes", begins at 91 FR 23771 and runs to 91 FR 23847, where the part on regulatory analyses begins. Within that part the Department answers comments in a repeated format of Comments, Discussion and Changes, and states how it arranged them: "The Department has grouped the comments by the regulatory section and by similar themes" (91 FR 23771). It also states what it does not take up, including comments it treats as outside the scope of the proposed rule, minor non-substantive changes, and changes it says the statute does not authorize the Secretary to make (91 FR 23771). One feature of the printed rule should be noted by anyone checking a citation against the table of contents: the table of contents at 91 FR 23768 numbers the part on

regulatory analyses as the seventh, while the body prints it as the eighth at 91 FR 23847, and no seventh part appears in the body. The body's headings and pages are cited throughout this report. On the volume of comment, the Department states: "The Department received 80,793 comments on the proposed regulations" (91 FR 23771). That figure counts comments on the proposed rule. A separate and smaller figure appears in the same passage for the earlier stage: the Department states that it "solicited public comments for 30 days and received 1,846 comments on the public hearing notice" (91 FR 23771). The two are not the same count and are not combined anywhere in this report. The Department also states how it posted what it received, which governs how any count of posted documents should be read: where submissions appeared to be duplicates or near-duplicates of comments prepared as part of a write-in campaign, it "posted one representative sample comment along with the total comment count for that campaign", and where submissions were bundled together it "posted all the substantive comments included in the submissions along with the total comment count for that document or package" (both at 91 FR 23771). Section 6.2 returns to that statement.

4. The test the Department said it was applying

4.1 The definition as adopted

The final rule adds the definition to the Direct Loan regulations at 34 CFR 685.102(b). Amendatory instruction 7 reads, across 91 FR 23881 and 23882:

> 7. Section 685.102 is amended paragraph (b) by adding, in alphabetical order, the definitions of "Expected time to credential", "Graduate student", "Other financial assistance", "Professional student", and "Program length" to read as follows:

The rule adds no free-standing definition of professional degree. It adds a definition of professional student, and a professional degree is defined inside it.

The adopted text, printed at 91 FR 23882 and 23883, reads in full:

> Professional student: A student enrolled in a program of study that awards a professional degree upon completion of the program;
>
> i. A professional degree is a degree that:
>
> A. Signifies both completion of the academic requirements for beginning practice in a given profession, and a level of professional skill beyond that normally required for a bachelor's degree;
>
> B. Is generally at the doctoral level, and that requires at least six academic years of postsecondary education coursework for completion, including at least two years of post-baccalaureate level coursework;
>
> C. Generally requires professional licensure to begin practice; and
>
> D. Includes a four-digit program CIP code, as assigned by the institution or determined by the Secretary, in the same intermediate group as the fields listed in paragraph (ii)(A) of this definition.
>
> ii. A professional degree may be awarded in the following fields:
>
> A. Pharmacy (Pharm.D.), Dentistry (D.D.S. or D.M.D.), Veterinary Medicine (D.V.M.), Chiropractic (DC or DCM.), Law (L.L.B. or J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., or M.H.L.), and Clinical Psychology (Psy.D. or Ph.D.).
>
> B. [Reserved]
>
> iii. A professional student under this definition:
>
> A. May not receive title IV aid as an undergraduate student for the same period of enrollment; and
>
> B. Must be enrolled in a program leading to a professional degree under paragraph (ii) of this definition.

The same instruction adds the term the definition is set against: "Graduate student: A student enrolled in a program of study that is above the baccalaureate level and awards a graduate credential (other than a professional degree) upon completion of the program." (91 FR 23882). A program is one or the other, and the borrowing ceiling follows from which.

The definition the statute incorporates. The rule quotes the statute at 91 FR 23789: "the term 'professional student' means a student enrolled in a program of study that awards a professional degree, as defined under section 668.2 of title 34, Code of Federal Regulations (as in effect on the date of enactment of this paragraph), upon completion of the program." The date of enactment is July 4, 2025. As in effect on that date, 34 CFR 668.2 read:

> Professional degree: A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. Professional licensure is also generally required. Examples of a professional degree include but are not limited to Pharmacy (Pharm.D.), Dentistry (D.D.S. or D.M.D.), Veterinary Medicine (D.V.M.), Chiropractic (D.C. or D.C.M.), Law (L.L.B. or J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Podiatry (D.P.M., D.P., or Pod.D.), and Theology (M.Div., or M.H.L.).

That section has no Federal Register page of its own, so it is cited here by section and capture date: a point-in-time capture of the Code of Federal Regulations for July 4, 2025, retrieved September 16, 2026. The section's published amendment history records no amendment between July 1, 2024 and July 1, 2026, which is what makes that capture the text in force on the date the statute names. The same words were adopted on November 1, 2007 and printed at 72 FR 62025 (US Department of Education, Federal Student Aid Programs, final regulations, document E7-21083).

What the adopted definition adds to the incorporated one. Set side by side, the incorporated definition, at 34 CFR 668.2 as in effect on July 4, 2025, carries three requirements and ten fields; the adopted definition, at 91 FR 23882, carries four requirements and eleven fields. Paragraphs (i)(A) and (i)(C) restate the incorporated definition's first two sentences. Paragraphs (i)(B) and (i)(D), the doctoral level with six academic years of

coursework and the four-digit program classification code, have no counterpart in the incorporated text. Section 4.2 gives the Department's stated basis for each.

A note on the numbering, recorded as printed. The adopted text numbers the definition (i) to (iii) with lettered subparagraphs, and its one internal cross reference reads "paragraph (ii)(A) of this definition" (91 FR 23882). The preamble that discusses the same definition refers instead to paragraphs (1)(ii), (1)(iv), (2) and (2)(i) (91 FR 23784 and 23785), which is how the proposed rule numbered the definition at 91 FR 4332. This report cites the adopted text by its own numbering and quotes the preamble as printed. The record does not say why the two differ, and this report does not suggest a reason.

4.2 The elements, in the Department's own words

The Department names the first three requirements together. They are the ones Congress incorporated, and the Department calls them the operative test: "To be considered a professional degree, a degree must meet the three-prong test and be similar in character to the degrees Congress included in the illustrative list in the definition of professional degree." (91 FR 23785). It describes how the test and the list work together: "The statute creates an operative definition with elements that must be applied to all degree programs. In addition, the illustrative list of degrees in the statute provides context and limiting principles that are common across all, or substantially all, of the illustrative programs listed in the definition. Degree programs that meet the operative elements and satisfy the contextual principles are professional degrees; all other programs at the graduate level do not." (91 FR 23783).

Completion of the academic requirements for beginning practice, paragraph (i)(A). The Department states what it takes "beginning practice" to mean, at 91 FR 23786:

> Ultimately, we disagree that "beginning practice" can be used for the specific profession represented by the degree, rather than initial entry into the field.

Its stated basis: "As we explain in the NPRM (91 FR 4265), programs that lead to degrees that are not necessary for entrance into a profession cannot be considered professional degrees under the definition in § 668.2. This approach aligns with the historical basis that underpins the definition in § 668.2 (72 FR 62014)." (91 FR 23786).

Professional skill beyond that normally required for a bachelor's degree, paragraph (i)(A). "However, programs where their graduates obtain work in the profession after earning only a bachelor's degree (91 FR 4266) would not require post-baccalaureate training and would therefore fail this aspect of the three-part operative test. Therefore, such programs do not meet the definition of professional degree because they fail one part of the three-part operative test." (91 FR 23786).

Licensure generally required, paragraph (i)(C). "The Department recognizes many graduate programs prepare students to obtain professional licensure; however, this alone is not sufficient to be a professional degree. Additionally, preparation for licensure does not always correspond to a licensure requirement as the operative test in § 668.2 necessitates." (91 FR 23786).

The doctoral level and six academic years, paragraph (i)(B). This requirement is not in the incorporated definition. The Department states it: "Relatedly, in paragraph (1)(ii) of the definition of professional student, we include a provision that a professional degree is generally at the doctoral level and requires at least six academic years of coursework, including at least two years of post-baccalaureate level coursework." (91 FR 23784). Its stated basis is the composition of the enumerated list: "The list shows that the incorporated framework is not categorically limited to doctoral degrees, but it also shows that the category is narrow and specific rather than open-ended. The Department cannot overlook that, among the professional degrees listed in § 668.2, only one is not at the doctoral level. The Department therefore did not read the statute either to require a doctoral-only rule or to encompass all advanced non-doctoral programs." (91 FR 23784). A footnote to the same passage states where the list came from: "The list of programs in § 668.2 was based on the definition of first-professional degree used by the National Center for Education Statistics (NCES), which included the same limited 10 fields that are listed in § 668.2 today (72 FR 62014). Because the Department relied on this NCES definition to develop the list in § 668.2, we also used this historical definition to inform the incorporated definition." (91 FR 23784, footnote 6).

The four-digit program classification code, paragraph (i)(D). This requirement is not in the incorporated definition either. The Department states it: "In paragraph (1)(iv) of our definition of professional student in § 685.102, we note that a professional degree is a degree that includes a four-digit CIP code in the same intermediate group as the fields listed in paragraph (2)(i) of the definition of professional student." (91 FR 23784). Its stated basis, at 91 FR 23783:

> it is the Department's view that incorporating the four-digit CIP code into the definition of professional degree in the regulations is not inconsistent with the statute. Rather, this is merely an outgrowth of Congress giving the Executive Branch the authority "to fill up the details" of the statutory scheme.

The classification the criterion relies on is a federal coding system for fields of study, and the rule describes it: "the CIP code taxonomy for instructional programs is organized on three levels: (1) A two-digit series of 48 general fields that groups a larger number of related programs; (2) A four-digit series nested within each two-digit series, which represents groupings of programs that have comparable content and objectives within those two-digit fields; and (3) A six-digit series that assigns unique six-digit codes to specific instructional programs." (91 FR 23786). The Classification of Instructional Programs is maintained by the National Center for Education Statistics, and every institution receiving federal student aid reports its programs under it. The rule states why it chose the middle level rather than the broadest: "two-digit groupings, as the commenters propose, would be far too inclusive of programs that are not connected to professional practice at that two-digit level." (91 FR 23786). The "intermediate group" of paragraph (i)(D), printed at 91 FR 23882, is that four-digit level.

4.3 The enumerated fields

The adopted regulatory text lists the fields once, at paragraph (ii)(A), and this is the list exactly as it prints:

> A. Pharmacy (Pharm.D.), Dentistry (D.D.S. or D.M.D.), Veterinary Medicine (D.V.M.), Chiropractic (DC or DCM.), Law (L.L.B. or J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., or M.H.L.), and Clinical Psychology (Psy.D. or Ph.D.).
>
> B. [Reserved]

(91 FR 23882.) Eleven fields are listed. The definition the statute incorporates lists ten, ending at Theology; clinical psychology does not appear in 34 CFR 668.2 as in effect on July 4, 2025, which was searched in the capture archived for this report on September 16, 2026. The abbreviations for chiropractic also differ between the two documents, which print "Chiropractic (D.C. or D.C.M.)" and "Chiropractic (DC or DCM.)" respectively; each list is quoted here as its own document prints it.

The field added, and the record of its addition. Clinical psychology was added during the rulemaking, and the same eleven fields appear in the proposed rule of January 30, 2026, at 91 FR 4332, so the addition was proposed before the comment period rather than made in response to it. The proposed rule records where the suggestion came from: "Several members of the Committee suggested the Doctorate in Clinical Psychology as another specific example of a professional degree program, noting that such programs meet all of the criteria in the definition of professional degree in 34 CFR 668.2. Additionally, they noted that, in the definition of qualifying graduate program in 34 CFR 668.2, Clinical Psychology programs are specifically included with other professional degree programs requiring postgraduate training to obtain licensure, including medicine (M.D.), dentistry (D.D.S. or D.M.D.), and osteopathic medicine (D.O.), and therefore are in the same class as these programs which are also specifically identified as professional degree programs." (91 FR 4263). It adds: "Committee members also noted that a doctorate in Clinical Psychology is explicitly required for licensure to practice as a clinical psychologist in every state." (91 FR 4263). The committee is the negotiated rulemaking committee convened in the autumn of 2025, whose record is documented in section 3.5 of this report.

The final rule states the same basis in its own words: "With respect to adding the doctorate in clinical psychology to an illustrative list of professional degrees, we explain in the NPRM (91 FR 4263-4264) how, during negotiated rulemaking, the Committee was able to determine that the doctorate in clinical psychology met all of the criteria in the definition of professional degree in § 668.2 and was substantially similar to the other professional degrees in the definition." (91 FR 23785).

What the Department says the two lists are. The incorporated list and the adopted list are not treated the same way: "Although the commenters are correct that the list of degrees in § 668.2 is non-exhaustive, the professional degrees in paragraph (2) of the definition of professional student is exhaustive and the basis for including clinical psychology, as mentioned earlier, is because that program meets all the criteria of the definition." (91 FR 23785).

On the ten fields it inherited, the Department states that it had no choice: "Because Congress inserted a cross-reference to professional degree, the ten-degree categories in the illustrative list of advanced degrees are professional degrees and meet the definition. The statute explicitly includes such degrees in the definition and therefore the Department is foreclosed, by statute, from removing them. And as explained above, the Department believes that even though it is not explicitly referenced on the list, clinical psychology meets the operative test and satisfies the contextual elements of professional degree. No further interpretive work is required for these degree programs to be classified as professional degrees." (91 FR 23791).

4.4 The interpretive principles the Department stated

The enumerated list as context. "Here, we rely on the illustrative list of degrees provided by Congress, as well as the historical context in which that list was originally developed by the Department, to identify common characteristics of those degrees. We further explain each of those commonalities and attributes of these professional degrees." (91 FR 23785). The Department describes the result as bounded: "Rather, the Department is applying the incorporated definition as a bounded and uniform classification informed by the listed examples and the same general class of programs reflected in the enumerated examples." (91 FR 23783).

The canon it names. "The Department provides key context to the statute in the NPRM (91 FR 4263); we explain our use of the interpretive canon noscitur a sociis as an instructive canon to determine the universe of professional degrees that are eligible for the higher loan limits." (91 FR 23785). Noscitur a sociis is a rule of legal interpretation under which a word is read in the light of the words listed alongside it. A second canon is named at 91 FR 23789: "In addition to the noscitur a sociis, canon, which, as discussed above, requires us to determine what the enumerated degrees have in common and take that into account when determining whether another degree should be considered a professional degree, the Department also considers the surplusage canon when making this determination. The canon against surplusage holds that every part of a statute should be given meaning and effect."

Illustrative rather than exhaustive, and additions through future rulemaking. "Contrary to commenters' assertion, and as we explain in detail in the NPRM (91 FR 4263), the list of professional degrees in the definition of professional student need not be exhaustive and is merely an illustrative list of degrees. We further clarify that we do not assert that the list of included professional degrees represents all degrees that may be professional in nature offered by institutions. The list provides those degree programs that we have identified as meeting the statutory definition of a professional degree for the purposes of determining who is considered a professional student and is subject to the higher loan limits. Additionally, the definition's framework provides clear clues that, so long as the operative definition and context allow, additional degrees may be added to the list of professional degrees through future rulemaking." (91 FR 23785). The Department says the same thing again in answering a different comment, at 91 FR 23789: "To the contrary, the degree programs that are developed in the future have the opportunity to satisfy the definition of a professional degree if they meet the operative test and the program is consistent with the contextual elements."

What the classification means outside the administration of loan limits. The Department states the point twice. At the head of the discussion, at 91 FR 23782:

> At the onset, the Department notes that our classification of particular professions and degree pathways into either "graduate" or "professional" does not represent a normative judgment regarding whether we think the underlying career is worthy. The term "professional student" is used in the new amendments to the Higher Education Act to classify degrees based upon particular characteristics only for the purposes of Direct Loan eligibility.

And in answering comments that the term would be read outside federal student aid, at 91 FR 23784: "In the same way, the taxonomy used here for only loan eligibility purposes does not rank academic fields, confer professional recognition, or determine whether a program, occupation, or degree carries greater status, worth, legitimacy, or public value than another. Nor does the Department interpret or apply this terminology to govern State licensure, scope of practice, payer credentialing, insurer recognition, reimbursement, contracting, employer treatment, or malpractice coverage. Those matters arise under separate statutory, regulatory, and private frameworks and are not controlled by the title IV loan classifications adopted in this rule." Section 7.5 prints the Department's shortest statement of the same point.

4.5 The criteria the Department applied beyond the three elements

Alongside the four requirements in the regulatory text, the comment responses state further grounds, each drawn from what the Department says the enumerated fields have in common. Each is quoted once here, in the Department's own terms, and section 7 shows where each was applied.

Supervision by a member of another licensed profession. "However, we also qualify that context is key; as we explain in the NPRM (91 FR 4263), using the list of professional degrees in § 668.2 as the baseline and applying the interpretive canon noscitur a sociis, we determined what those degrees had in common. Among them, a profession must not be supervised by a licensed professional from a different profession." (91 FR 23799). The Department calls this an implied requirement: "all of the degrees in the illustrative list of professional degrees grant unrestricted ability for holders of those degrees to practice that profession in every State without supervision by a professional licensed in another profession. That is therefore an implied requirement of professional degrees. And insofar as a residency or some fixed period of supervised practice is required, the supervision during that period is provided by members of the same profession." (91 FR 23799). Answering the objection that this is a criterion found nowhere in the incorporated text, it states: "The NPRM (91 FR 4264-66) did not adopt supervision, collaboration, or the absence of immediate independent practice as freestanding disqualifying criteria. Rather, the Department explained that it was applying the incorporated professional degree framework in light of the contextual significance of the illustrative list and, in that context, was not persuaded that degrees leading to employment that ordinarily must be supervised by a licensed professional in a different occupation and cannot be performed independently fit within that framework." (91 FR 23787).

More than one route to licensure. "Finally, in many fields, there are multiple pathways students may take to qualify to sit for licensure exams. All of the programs on the enumerated list have generally one pathway toward licensure, which includes earning the requisite degree first prior to sitting for a licensure exam. Since these pathways divert from the enumerated list of professional degrees, programs where there are alternate pathways to licensure are unlikely to be considered professional degrees (91 FR 4265)." (91 FR 23786 and 23787.) Applied to a field the Department declined: "Where there are multiple pathways to licensure, like here, the Department finds that the degree is not professional because that feature makes the profession dissimilar to the features of the program in the illustrative list of degrees in the definition of professional degree." (91 FR 23793).

Movement of a profession to a higher credential after the enumerated list was made. "As explained in the NPRM (91 FR 4266), later movement of a field to a higher credential level does not itself alter the incorporated definition in § 668.2 or provide a basis to expand that definition beyond its text. Where programs later migrated to higher credential levels but were not incorporated into the existing definition over time, the Department does not treat that later credential escalation alone as a basis for inclusion." (91 FR 23788).

An advanced degree treated as a specialization rather than a distinct profession. "While such work is different from that in a lower role, we do not believe that the statute permits classification of a specialization or concentration as a separate and distinct profession in most circumstances. Indeed, the profession in which the graduate is entering is still generally the same profession, regardless of the specialty associated with that advanced degree." (91 FR 23787).

The program classification code requirement. "Additionally, the existence of a CIP code does not in and of itself attribute a program to inclusion in the illustrative list; rather the program must match the 4-digit CIP code of a program already listed in 34 CFR 668.2 (91 FR 4264)." (91 FR 23805).

Each of these is a ground the Department states. Section 7 prints where each was applied, section by section and in the Department's own words. This report draws no conclusion about whether the grounds are consistent with one another, and none about why any ground was adopted.

5. What the record says about nutrition and dietetics

5.1 The section, and where it sits

The preamble to the final rule carries a section headed "Nutrition and Dietetics" (91 FR 23805 to 23807), in the Comments, Discussion and Changes format the Department uses throughout the analysis of public comment. The section begins on 91 FR 23805, in the last column of that page, immediately after the Changes line of the section before it, and it ends on 91 FR 23807 with its own Changes line, immediately before the heading of the section after it. It runs to about 1,200 words including its two footnotes. The printed page turns twice inside it: once in the middle of a sentence in the Comments passage, at 91 FR 23806, and once in the middle of a sentence in the Department's answer, at 91 FR 23807.

It is one of seventeen headed sections in which the Department answers comments about particular fields of study. Those sections run from "Business, Master's in Business Administration (MBA), and Accounting" at 91 FR 23791 to "Undergraduate Pathways Raised in the Professional Student Comments" at 91 FR 23808, each set out in the same Comments, Discussion and Changes format, and Nutrition and Dietetics is the thirteenth of them. The section immediately before it is "Modern Health Profession Pathways", which begins at 91 FR 23804 and answers comments about allied health programs, orthotics and prosthetics, athletic training and certified anesthesiologist assistants in five separate cycles of comment and answer, four of which carry no heading of their own. The section immediately after it is "Speech-Language Pathology (SLP) and Audiology

(AuD)", at 91 FR 23807. Appendix C sets out those sections, and Table 6 in section 7 gives the ground the Department stated in each. Both print twenty entries rather than seventeen, and the difference is one of basis rather than of fact. Seventeen is the count of headings in the printed copy that are each followed immediately by a Comments passage. Twenty is the count in the Federal Register's structured markup of the same block of the preamble, which gives a heading of its own to three passages printed beneath the heading for graduate-level nursing: the Master of Science in Nursing, the Doctor of Nursing Practice for advanced practice professions other than certified registered nurse anesthetist, and the Doctor of Nursing Practice in nurse anesthesia together with the Doctor of Nursing Anesthesia Practice. Table 6 and Appendix C give each of those three a row of its own and mark it with a dagger. Neither count is adjusted to the other, and each is printed with its basis beside it.

Two things about that count are recorded rather than resolved. The printed copy sets every heading in this part of the preamble in the same type, at the same size, flush to its column, so the page itself does not distinguish a heading that names a field from a heading that groups several. And one of the seventeen is two lines of heading that the Federal Register's plain-text edition sets one above the other, "Other Professional Degree Field-Specific Comments Concerning Professional Student Classification" and "Architecture, Urban Planning, Interior Design", both at 91 FR 23802. The count is of headings that are immediately followed by a Comments passage, on that stated basis; no hierarchy among the headings is asserted here, because the documents do not establish one.

5.2 What the Department records commenters as asking

The Comments passage runs from 91 FR 23805 to 91 FR 23806. It is the Department's own account of what it received, written by the Department. It is not the comments themselves, and nothing in it establishes what any person or body filed, on what date, or in what words. Filings that can be traced to a filer are the subject of section 6.

The Department states first what it was asked to do:

> "The Department received comments urging it to treat nutrition and dietetics programs that lead to Registered Dietitian Nutritionist (RDN) credentialing as qualifying professional degree programs." (91 FR 23805)

It then gives the argument it attributes to those commenters generally:

> "These commenters argued that RDN preparation is now a structured graduate entry pathway requiring a master's degree, accredited supervised practice, and subsequent credentialing before entry into the RDN workforce." (91 FR 23805)

Four further arguments follow in the same voice. On the place of supervised practice in the pathway, the Department writes that "Many commenters emphasized that the required supervised practice and clinical training are not optional components of later professional advancement, but mandatory elements of the pathway to RDN eligibility" (91 FR 23805 to 23806, the sentence running across the page break). On cost and time: "Commenters also stressed that nutrition and dietetics programs are rigorous, full time, and costly, and that students often cannot work while completing the combined academic and supervised practice requirements" (91 FR 23806). On borrowing:

> "A recurring argument was that the graduate borrowing limits do not reflect the real cost of required RDN preparation and would therefore force students to rely on higher interest private loans, delay or prevent completion of training, or abandon the profession altogether." (91 FR 23806)

And on the work registered dietitian nutritionists do, and what those commenters said would follow:

> "Commenters further argued that RDNs are licensed or otherwise regulated health professionals who play essential roles in hospitals, long term care, chronic disease management, food insecurity, preventive care, and community health, and that excluding these pathways would weaken an already strained workforce and reduce diversity in the future nutrition workforce." (91 FR 23806)

The Department then turns to particular kinds of commenter. "Several commenters offered more specific examples" (91 FR 23806), it writes, and records four groups.

Program directors and faculty. The Department writes that "Program directors and faculty commenters emphasized that ACEND accredited master's, plus supervised practice programs, are now the required educational route to RDN credentialing, and argued that the financial structure of those programs is comparable to other graduate health pathways already treated as professional" (91 FR 23806). ACEND is the Accreditation Council for Education in Nutrition and Dietetics, the body that accredits dietetics programs in the United States.

The Academy of Nutrition and Dietetics. One organization is named in this section, and it is named once:

> "The Academy of Nutrition and Dietetics argued that RDNs are licensed healthcare professionals who complete a master's degree, supervised practice, and extensive clinical training before entering the workforce and that lower borrowing limits will worsen shortages in hospitals, long term care, community health, and rural settings." (91 FR 23806)

That sentence is the Department's summary of what it says the Academy argued. It is not a quotation from any filing, and it carries no date, no document number and no description of the document it summarizes. A search of the archived text of the whole final rule for the phrase "Academy of Nutrition and Dietetics", run on September 15, 2026, returned that one occurrence and no other. What the Academy itself published, and what the docket holds, are matters for sections 6.3 and 6.1; this section establishes only that the Department recorded an argument under that name at that page.

Individual commenters. The Department writes that "Individual commenters similarly stressed that their internships required full-time clinical or hospital rotations of 40 or more hours per week, that outside employment was impracticable during their time to credential, and that they relied on Federal loans to complete their training" (91 FR 23806).

Other commenters. Finally, "Other commenters argued that RDNs reduce health care costs through disease prevention, nutrition counseling, and medical nutrition therapy and that Federal student aid policy should reflect the structure of modern dietetics training, rather than older assumptions about the field" (91 FR 23806).

Two other bodies are named later in the section, in the Department's own account of how the credential works rather than as commenters: the Commission on Dietetic Registration, which administers the examination, and the Accreditation Council for Education in Nutrition and Dietetics, which accredits the programs.

What the passage does not carry. It gives no number of comments about dietetics, no names other than the one organization, no dates and no document identifiers. The Department's own statement of how it posted and counted write-in campaign submissions and bundled submissions is at 91 FR 23771 and is set out at section 6.2; it matters here because it means that nothing in this passage can be read as a count of people.

5.3 What the Department answered

The Discussion passage begins at 91 FR 23806 and ends at 91 FR 23807. It is about 770 words long and it is quoted here in full, in the order the Department gives it. It is quoted in full rather than summarized because the whole of it is the Department's statement of its reasons, and a summary of reasons is a paraphrase of the thing the reader most needs to check. The same text is reproduced with its page breaks at Appendix D.

The outcome, stated first.

> "The Department is not revising § 685.102 to treat nutrition and dietetics pathways that lead to RDN credentialing as qualifying professional degree programs." (91 FR 23806)

Section 685.102 of title 34 of the Code of Federal Regulations is the provision that carries the definition; it is set out at section 4.

The framework the Department says it is applying.

> "As explained in the NPRM (91 FR 4260–65), this final rule implements Congress's cross reference to the existing definition of professional degree in 34 CFR 668.2 for title IV loan limit purposes." (91 FR 23806)

The notice of proposed rulemaking, which is the document that proposed the rule and opened the comment period, is at 91 FR 4254 and is the subject of section 3.3. Title IV is the part of the Higher Education Act of 1965 under which federal student aid, including the loans at issue here, is made, so "title IV loan limit purposes" (91 FR 23806) means the purpose of setting how much a student may borrow from the federal government. Section 668.2 of title 34 of the Code of Federal Regulations is the general definitions provision for that aid, and it carried the definition of professional degree before this rulemaking began. The Department then states what it says it considers, and what it says it does not:

> "In applying that incorporated definition, the Department considers the structure of the existing regulation, the context supplied by the enumerated examples, the characteristics of the program, and the requirements of the profession, rather than broader workforce need, public health value, or the general importance of the work." (91 FR 23806)

The application, as printed.

> "Under that framework, the Department does not adopt commenters' request to treat nutrition and dietetics pathways as professional degree programs because the RDN pathway now requires a master's degree, accredited supervised practice, and credentialing." (91 FR 23806)

> "That is the core reason the Department is not revising the rule here." (91 FR 23806)

Those two sentences are reproduced as printed. As printed, the clause following "because" names the same three features of the pathway that the Comments passage records commenters as having relied on. The report records the sentence as the Federal Register prints it and does not reconcile it with the sentences that follow, rewrite it, or infer anything from it.

The question the Department says the framework does not ask, and the question it says it does ask.

> "The incorporated framework does not ask whether a graduate credential has become the preferred or current route to a valued healthcare credential, or whether a profession now uses a master's degree plus supervised practice as part of one important pathway into regulated work." (91 FR 23806)

> "It asks, in substance, whether the degree itself functions as the graduate level academic threshold for beginning practice in the profession within the framework Congress chose to incorporate." (91 FR 23806)

The conclusion about the registered dietitian nutritionist pathway and the broader field.

> "The Department concludes that the RDN pathway does not satisfy that framework where the graduate credential at issue is not the basis for entry into the broader nutrition or dietetics field as a whole, and where commenters' arguments depend heavily on the structure of one credentialing pathway within a broader field of nutrition related practice." (91 FR 23806)

> "The Department therefore does not revise the rule merely because the RDN pathway is now graduate entry, supervised practice based, and professionally significant." (91 FR 23806)

The supervised-practice argument. The Department states the argument, accepts a part of it, and gives its answer.

> "The Department has considered commenters' argument that required supervised practice is not optional advancement, but a mandatory component of qualifying for RDN credentialing, and that RDNs therefore should be treated more like other clinically oriented, graduate entry health professions." (91 FR 23806)

> "The Department does not dispute that supervised practice and credentialing are mandatory features of the RDN pathway." (91 FR 23806)

> "However, the various degrees that enable the holder to become credentialed as an RDN do not meet the necessary criteria to be for eligibility for the higher professional student loan limits." (91 FR 23806)

The last sentence is quoted as printed, including the words "to be for eligibility".

The examination and the eligibility routes. This is the passage in which the Department states how the credential is obtained. It carries the first of the two citations the section makes to sources outside the rulemaking record, both of them in footnotes printed at 91 FR 23806.

> "To obtain credentialing as an RDN, an individual is required to pass the Registered Dietitian examination administered by the Commission on Dietetic Registration (CDR)." (91 FR 23806)

> "To be eligible to take the examination (among other requirements), an individual must hold a graduate degree from an Accreditation Council for Education in Nutrition and Dietetics(ACEND)—accredited didactic program in dietetics, an ACEND-accredited coordinated program, an ACEND-accredited graduate program, or, alternatively, a doctorate from an institution that is accredited by an institutional accreditor recognized by the Department." (91 FR 23806)

That sentence is quoted as printed, including the absent space in "Dietetics(ACEND)—accredited". The footnote attached to it, footnote 39, is printed at 91 FR 23806 and reads in full:

> "Comm'n on Dietetic Registration, RD EXAMINATION—ELIGIBILITY REQUIREMENTS, cdrnet.org (last visited on Apr. 16, 2026), https://www.cdrnet.org/RDNeligibility/."

The Department then states what it draws from that source about the doctorate:

> "No State requires a doctorate degree to enter the profession and the CDR only requires a doctorate degree if an applicant to take the Registered Dietitian examination does not have a graduate degree from an ACEND-accredited program, which may well be at the master's-level." (91 FR 23806)

> "Therefore, a doctorate (in dietetics or otherwise) is not generally required to enter the profession," (91 FR 23806)

The second of those is quoted as printed. The sentence ends with a comma, and the text resumes at a new paragraph, after the footnote block, with the words "In addition".

The two reasons the Department states for failure of the operative test. The operative test is the Department's own term for the three-part test set out at section 4.

> "In addition, masters degrees leading to RDN certification fail the operative test for two reasons: (1) it is possible to complete some degrees that confer eligibility to take the Registered Dietitian examination in as few as five years of postsecondary education and (2) to the extent that they take six years or longer, such degrees are at the master's level, not the doctorate level." (91 FR 23806)

Quoted as printed, including "masters". The Department supports the first of the two with a second citation:

> "We note that it is possible to obtain a master's degree from an ACEND-accredited program in as little as one year." (91 FR 23806)

> "As a result, a student may obtain the necessary education to sit for the Registered Dietitian examination in as few as five years, not the six years required by the definitional test." (91 FR 23806)

Footnote 40, attached to the first of those and printed at 91 FR 23806, cites two university program pages: "See, e.g., Univ. of DC, Nutrition and Dietetics—MS, https://www.udc.edu/causes/academics/nutrition-dietetics/ms-in-nutrition-and-dietetics (last accessed Apr. 16, 2026)", and "Univ. of Tenn. Knoxville, Clinical Nutrition & Dietetics" at an address carrying a text fragment, also last accessed April 16, 2026.

The workforce, cost and access arguments, and what the Department says it cannot consider.

> "The Department likewise declines to revise the rule based on commenters' arguments that RDNs are essential to chronic disease management, food insecurity, preventive care, and community health, or that lower loan limits will increase reliance on private loans, reduce diversity, and worsen shortages in nutrition care." (91 FR 23806)

> "The Department recognizes the seriousness of those concerns, including commenters' descriptions of full-time internship demands, inability to work during a borrowers' time to completion, and the role of loans in permitting students with limited financial means to complete required training." (91 FR 23806 to 23807)

> "But those are not factors that Congress directed the Department to consider when classifying degrees as professional degrees or graduate degrees, and, as such, the Department cannot consider these programs to be included in the definition of professional degree." (91 FR 23807)

The sources the Department cites, beside what those sources say

Each of the three sources cited in the section was retrieved from the body that publishes it and archived with its address, retrieval time and SHA-256 hash. They are set out in Table 2 so that the Department's account of a source can be read beside the source. Differences are recorded as differences. Nothing is inferred from them about the Department, and no source is said to be right or wrong.

The Department gives April 16, 2026, as the date it consulted all three. For all three, archived captures exist on both sides of that date. For the first they are of March 9, 2026 and April 30, 2026. The second is at the page's address with a trailing slash, the address the footnote cites; a search of the Internet Archive index on September 16, 2026, missed it, and it was found on September 25, 2026. The page as it stood on April 16 2026 cannot be shown, but the captures on either side of that date and the page as retrieved on September 16, 2026, carry the same words on every point at issue.

Table 2. The sources cited in the Nutrition and Dietetics section, and what the archived copies say.

The source, as the footnote cites it	What the Department states from it	What the archived copies say	The difference, recorded
Commission on Dietetic Registration, RD Examination - Eligibility Requirements, cdrnet.org, last visited April 16, 2026 (footnote 39, 91 FR 23806). Archived: captures of March 9, 2026 and April 30, 2026, and copy retrieved September 16, 2026.	That an individual must "hold a graduate degree from an Accreditation Council for Education in Nutrition and Dietetics(ACEND)—accredited didactic program in dietetics, an ACEND-accredited coordinated program, an ACEND-accredited graduate program, or, alternatively, a doctorate from an institution that is accredited by an institutional accreditor recognized by the Department" (91 FR 23806).	All three copies state three requirements separately: "Degree: A minimum of a graduate degree from a USDE-recognized accredited institution (or equivalent)"; "Nutrition-Related Coursework: Complete one of the ACEND-accredited programs for coursework (DPD, CP, or GP)"; and "Supervised Practice: Complete one of the ACEND-accredited programs for supervised practice (DI, ISPP, CP, or GP)". All three then set out four pathways in a table, the fourth pairing a doctorate degree with an ACEND-accredited Doctorate ISPP.	The page as archived separates the degree requirement, which it states as a graduate degree from an institution recognized by the US Department of Education, from the requirements to complete accredited coursework and accredited supervised practice. The preamble sentence states the graduate degree as held from an accredited program of one of three kinds. The page's fourth pathway pairs the doctorate with an accredited supervised-practice program; the preamble states that alternative as a doctorate from an institution accredited by a recognized institutional accreditor.
University of the District of Columbia, Nutrition and Dietetics - MS, last accessed April 16, 2026 (footnote 40, 91 FR 23806). Archived: captures of March 8, 2026 and April 30, 2026, and copy retrieved September 16, 2026.	That "it is possible to obtain a master's degree from an ACEND-accredited program in as little as one year" (91 FR 23806).	All three copies state: "It is a 12-month program offered by UDC in the Department of Health, Nursing, and Nutrition", and, of the same track, that it "is a 12-months program that includes supervised experiential learning. The program is 3 semesters". All three also state that the program "has been granted accreditation candidacy by the Accreditation Council for Education in Nutrition and Dietetics (ACEND)".	The page's stated length, twelve months across three semesters, is consistent with the Department's "as little as one year". On accreditation status the two differ in terms: the preamble sentence describes an ACEND-accredited program, and the page describes a program granted accreditation candidacy.
University of Tennessee, Knoxville, Clinical Nutrition & Dietetics, last accessed April 16, 2026 (footnote 40, 91 FR 23806). Archived: captures of March 14, 2026 and April 30, 2026, and copy retrieved September 16, 2026.	That a student may "obtain the necessary education to sit for the Registered Dietitian examination in as few as five years" (91 FR 23806).	All three copies describe "an intensive one-year graduate program" and state that students who complete it "will have earned a B.S. degree as well as a M.S. in Nutrition with a concentration in Clinical Nutrition & Dietetics in just five years". All three also state, of applicants who enter from outside: "Students accepted through this route are expected to be able to complete the master's program in two years."	The page's five-year statement is for students moving through from that university's own undergraduate program. The same page states a two-year expectation for external applicants. The section, reproduced in full at Appendix D, refers to the five-year route and not to the second.

What this passage establishes, and what it does not

It establishes what the Department stated its reasons to be, in writing, in a rule published on May 1, 2026, and where each of those statements sits on the page. It does not establish that those were the only considerations, what was discussed before the rule was written, or what weighed with anyone. Those are questions about deliberation, and the published record does not answer them. Section 10 states that limit for the report as a whole.

5.4 What the Department changed

The section closes with the Department's disposition, which is one line:

> "Changes: None." (91 FR 23807)

Nothing in the regulatory text was altered in response to the comments recorded in this section. The definition as adopted, which section 4 sets out in full, is the definition that took effect on July 1, 2026, subject to the court order of June 24, 2026, described at section 9.

5.5 What this section does and does not establish

What the section establishes is a text. On May 1, 2026, the Department set out, in the preamble to a final rule, a set of reasons for its treatment of nutrition and dietetics, and each of those reasons has a page. Section 5.3 gives the Discussion passage in full and in the order the Department gives it, including the reasons that run against the profession's case; what a reader sees is the passage and not a selection from it. Appendix D reproduces the whole section with its page markers in place, and every quotation in section 5 can be checked where it sits.

What the section does not establish is anything behind that text. It does not establish that the printed reasons were the only considerations, what was discussed before the rule was written, or what weighed with anyone; those are questions about deliberation, and a published rule does not answer them. The Comments passage is the Department's own characterization of what commenters argued, not the comments themselves and not a count of them, and section 6 documents filings traced to the bodies that made them. Nothing in section 5 states or implies why the Department, the commenters it records, or any body named in the section acted as it did. Section 10 states that limit for the report as a whole.

6. Who filed, and what they asked for

6.1 The comment record on the professional-degree question

The docket for this rulemaking is Docket ID ED-2025-OPE-0944, held by the US Department of Education on regulations.gov, the federal government's public rulemaking portal. It was read through the portal's public interface for developers on September 16, 2026, using the docket identifier as the filter. A search of that docket returns documents that have been posted to it, which is not the same thing as the number of

comments the Department reports receiving; section 6.2 sets out the Department's own account of the difference, and nothing in this report treats a posted document as a person.

As retrieved at 01:32 coordinated universal time on September 16, 2026, the docket carried 19,631 posted comment documents and six agency documents. Within it, a phrase search for "professional degree" returned 9,240 posted comments. A phrase search for "nutrition and dietetics" returned 133; searches for the single terms "dietetics" and "dietitian" returned 193 and 183; a phrase search for "registered dietitian" returned 144; the single term "nutrition" returned 350; and a phrase search for "Academy of Nutrition and Dietetics" returned 12. The query shape used throughout was the docket filter with a search term and a page size, and each query and its run time is recorded in the search log at Appendix B.

Three properties of those figures govern how they may be read, and each was tested rather than assumed. First, they are counts of posted documents that match a full text search, not counts of filings by a profession or a body: a comment filed by any person may name several professions, and a match on "dietetics" means only that the word appears. Second, the sets overlap and must not be added: the six dietetics-related searches above return 397 unique posted documents between them, not the 1,015 their separate totals would suggest. Third, the search does not reach the text inside attached files. It reaches the text typed into the comment box, the free-text organization field and the titles of attachments; on September 25, 2026, thirty-five probes, each a word that appears only inside one attachment, returned none of their target comments (Appendix B row D08-30). A letter whose words sit only in an attached file is therefore returned by none of the searches in this section, whatever it says. The coalition letter the Academy of Nutrition and Dietetics signed, posted as ED-2025-OPE-0944-18590, is one: it names the Academy only in its signature list, and the search for the Academy's name does not return it. The portal's phrase search also matches word stems and ignores punctuation.

The portal carries a free-text organization field that the person submitting the comment fills in. This report does not treat that field, on its own, as evidence of who filed. A posted comment is recorded in Table 3 as an organizational filing only where the filed document itself identifies the organization as the filer, by a letterhead, a signature block, or a statement that the comment is made on the organization's behalf. The reason for the rule is visible in the docket: two posted comments carry "Academy of Nutrition and Dietetics" in the organization field although neither document is a filing by that body. One, posted February 26, 2026, reproduces the text of a letter circulated for individuals to send, and its attachment is a copy of the proposed rule rather than a letter. The other, posted March 5, 2026, is a short comment in the first person with no letterhead, no signature block and no attachment. Both are recorded here as what they are, and neither is counted as a filing by the Academy.

Table 3. Posted comments on the professional-degree question that identify an organization as the filer, docket ED-2025-OPE-0944, as retrieved September 16, 2026.

Organization, as it names itself	Document	Posted	What the filing asks for, in its own words
Academy of Nutrition and Dietetics	ED-2025-OPE-0944-16364	March 3, 2026	"We respectfully urge the Department to explicitly recognize Nutrition and Dietetics as a professional degree program in the final regulations"
National Academies of Practice	ED-2025-OPE-0944-1178	February 3, 2026	"calling on the U.S. Department of Education to reverse its recent decision to narrowly define professional programs eligible for higher federal borrowing caps"
Institute for Functional Medicine	ED-2025-OPE-0944-16617	March 3, 2026	"we urge the Department of Education to consider the critical importance of the interprofessional care team model as it determines loan eligibility criteria"
Advocates for Children of New Jersey	ED-2025-OPE-0944-16461	March 3, 2026	"we urge the Department to revise the proposed rule to include graduate nursing, behavioral health, and social work degrees within the definition of 'professional degree'"
National Advocacy Center of the Sisters of the Good Shepherd	ED-2025-OPE-0944-16774	March 3, 2026	"we urge the Department to revise the proposed rule to include graduate social work degrees within the definition of 'professional degree'"
National Hispanic Health Foundation	ED-2025-OPE-0944-18598	March 4, 2026	"we strongly oppose this effort"
National Association of School Psychologists	ED-2025-OPE-0944-19635	March 23, 2026	"We urge the Department to maintain the inclusion of Clinical Psychology and the advanced degrees within this 4-digit intermediate CIP grouping in the final definition of professional degree"

Basis: posted comment documents in docket ED-2025-OPE-0944 that identify an organization as the filer by letterhead, signature block or an on-behalf-of statement, retrieved from the regulations.gov public interface on September 16, 2026. The table is not a census of organizational filings in the docket: it covers the 397 posted documents returned by the six dietetics-related searches and the distinctly titled documents in the 9,240 matching "professional degree", not all 19,631 posted documents. Quotations are from the document as posted; each archived copy's hash is at Appendix A.

The filing by the Academy of Nutrition and Dietetics is a three-page letter dated March 2, 2026, addressed to the Secretary of Education, attached to comment ED-2025-OPE-0944-16364, which was received on March 2, 2026 and posted on March 3, 2026, under tracking number mm9-b1t4-8h8x. It opens: "On behalf of more than 112,000 registered dietitian nutritionists (RDNs), nutrition and dietetics technicians, registered (NDTRs), and advanced-degree nutrition professionals, the Academy of Nutrition and Dietetics ('the Academy') appreciates the opportunity to comment". It closes

with three numbered requests, of which the first is that the Department "Recognize Nutrition and Dietetics as a professional program for purposes of the OBBB loan-limit framework, given the field's graduate-degree entry, required clinical/supervised training, accreditation, and state licensure landscape". The letter states that eligibility to sit for the registration examination has required a graduate degree since January 1, 2024, that accredited programs integrate at least 1,000 hours of supervised practice, and that forty-six states, Washington, DC and Puerto Rico require licensure. This report records what the letter says and does not assess whether its statements are correct; the Department's own account of the same pathway is at section 5.

Each statement about a filing not found is a search, with its query and its date, and not a claim that a document does not exist. Searching the docket on September 16, 2026, for the exact names of dietetics bodies returned no posted comment for the phrase "American Dietetic Association", none for "Nutrition and Dietetics Educators and Preceptors", and none for "American Society for Nutrition". A phrase search for "Commission on Dietetic Registration" returned nine posted comments and a phrase search for "Accreditation Council for Education in Nutrition and Dietetics" returned two; each of those eleven was read, and every one is a comment by a named individual that mentions the body, not a filing by it. On those searches, on that date, no filing by the Commission on Dietetic Registration or by the Accreditation Council for Education in Nutrition and Dietetics was found in this docket. Section 6.3 reports separately what each organization publishes on its own website, and section 6.4 carries the full list of filings sought and not found.

This section reports what was posted to one docket and what those documents say. It does not establish how many people wrote, because a posted document is not a person and section 6.2 explains why. It does not establish that a body which does not appear did not act, because a body may act through a coalition filing, a meeting, or a channel that leaves no docket entry. It does not establish why any filer filed, and no sentence above attributes a reason, a strategy or an omission to anyone.

6.2 What write-in campaigns and bundled submissions mean for a count

The Department states in the final rule how it posted what it received, and that statement governs every count in this report. Both sentences are at 91 FR 23771:

> "In instances where individual submissions appeared to be duplicates or near-duplicates of comments prepared as part of a write-in campaign, the Department posted one representative sample comment along with the total comment count for that campaign to www.Regulations.gov, which continues to be our standard practice."

> "In instances where individual submissions were bundled together (submitted as a single document or packaged together), the Department posted all the substantive comments included in the submissions along with the total comment count for that document or package to www.Regulations.gov."

Of the campaign submissions the Department adds: "We considered these comments along with all the other comments received" (91 FR 23771).

Three consequences follow, and they are the reason no number in this report is described as a number of people.

First, a posted document is not a submission. In the same passage the Department states that it "received 80,793 comments on the proposed regulations" (91 FR 23771). The docket, retrieved on September 16, 2026, carried 19,631 posted comment documents. The two figures are not in conflict and neither is wrong: by the Department's own account, a single posted document may stand for a whole campaign. Any share calculated on the 19,631 is a share of posted documents, and this report never divides one of these figures by the other.

Second, the docket says so on its own face. Among the 9,240 posted comments matching the phrase "professional degree" on September 16, 2026, 125 carry a title in a standard form that gives the comment's own identifier and then the number of commenters it represents. Those 125 titles state that they represent 40,255 commenters between them, the largest single one standing for 13,755 and the smallest for five. The same pattern appears in the dietetics-related record, where seven of the 397 posted documents carry such a title and state that they represent 1,219 commenters between them, the largest standing for 696. Five posted documents fall in both sets, so the two figures are reported separately and are never added. All of these figures are the docket's own, read from the titles it publishes. The portal also carries a duplicate-comment count field, which is set to zero on every one of the 518 records read for this report, including those whose titles state a number; the field is therefore not used here, and the titles are.

Third, identical text is visible in the dietetics-related record too. Among the 397 posted documents returned by the six dietetics-related searches, there are 386 distinct visible comment texts, so most carry text of their own. The uniformity sits in the attachments instead. A letter prepared for individuals to send, headed with the docket identifier and beginning "Thank you for the opportunity to comment on the proposed regulations regarding the definition and treatment of professional degree programs for federal student aid purposes", is reproduced in the attachments of eleven of those posted documents, each signed by a different named individual. The circulated letter was searched for the name of a sponsoring organization on September 16, 2026, for the phrases "sponsored by", "on behalf of" and "paid for by", and carries none. Who prepared or circulated it is not shown by the documents read here, and this report does not say.

What this establishes is that the relation between posted documents, submissions and people differs across campaign material, bundled material and individual letters, and that the Department said so in advance. What it does not establish is how many of the 80,793 comments the Department reports receiving (91 FR 23771) were campaign submissions, how many were bundled, or how many distinct people wrote. Those figures are not in the record as read here, and no estimate of them appears in this report.

6.3 Filings published by the organizations themselves

Many of the organizations whose fields the preamble answers publish, on their own websites, the comment letters they say they filed or statements about the professional-degree question. Those documents are a second record, independent of the docket, and they can be read without a docket search. This section sets out twenty-eight documents, from twenty-four organizations and two coalitions, retrieved on September 16, 2026. The same retrieval returned twelve further documents from the sites of organizations in the table; they are in the document register and are not set out here.

Table 4 gives each one with the organization as it names itself, the document and its date, what the document says on the question, in its own words (its ask, where it states one), and the identifier of the archived copy. Each entry records only what the document says. None of them shows why any organization acted.

Table 4. Comment letters and public statements on the professional-degree question published by the organizations themselves, retrieved September 16, 2026. Each document's own words on the question are quoted exactly from the archived copy; where a document states an ask, the ask is quoted. Every archived copy is identified by SHA-256 in the document register at Appendix A, and the retrieval time, byte count and address of each are recorded there.

Organization, as it names itself	Document, and its date	What it says on the question, in its own words
Academy of Nutrition and Dietetics	Department of Education Issues Final Rule on Graduate and Professional Student Loan Limits, public policy news item, May 19, 2026	"The rule also preserves a limited definition of"professional student," meaning only students in designated professional degree programs, which exclude nutrition and dietetics, qualify for higher loan limits."
Advanced Professional Workforce Alliance	Comment letter to Under Secretary Nicholas Kent on the Reimagining and Improving Student Education notice of…, March 2, 2026	"APWA calls on the Department to formalize a method by which excluded programs that meet substantial aspects of the three-part test can petition for inclusion in the"professional degree" definition."
American Society for Parenteral and Enteral Nutrition	Protect Federal Loans for Postbaccalaureate Nutrition and Dietetics and Nursing Programs, February 25, 2026	"Postbaccalaureate nutrition and dietetics programs (for RDNs) and nursing programs (for APRNs) are not included, limiting them to the lower graduate designation."
American Society for Parenteral and Enteral Nutrition	ASPEN Statement on Professional Designations, December 22, 2025	"ASPEN supports the efforts of the American Nurses Association and other nursing organizations in voicing concerns about this redesignation."
American Association of Colleges of Nursing	Comment letter to Under Secretary Nicholas Kent on the Reimagining and Improving Student Education notice of…, March 2, 2026	"AACN requests that the Department of Education explicitly include post-baccalaureate nursing programs, as outlined under the"Health Professions and Related Clinical Sciences" series of Classification of Instructional Programs (CIP) codes (Series 51.38), in the regulatory definition of professional degree programs"
American Association of Nurse Practitioners	Comment letter to Under Secretary Nicholas Kent, Reimagining and Improving Student Education, Docket ID…, March 2, 2026	"As currently proposed, post-baccalaureate nursing degrees, which are required for licensure and practice as an NP in every U.S. state and jurisdiction, would erroneously be excluded from the regulatory definition of"professional degrees" for the purposes of federal student loan limits."
A coalition of nursing and other organizations, published under the file name Nursing-and-Friends-Comment-Letter-RISE-NPRM.pdf	Coalition comment letter on the Reimagining and Improving Student Education notice of proposed rulemaking, March 2, 2026	"Together, we urge the Department to amend its proposed rule and include post-baccalaureate nursing degrees (MSN, DNP, Ph.D.) explicitly in the list of"professional" degrees."
American Nurses Association	American Nurses Association Submits Formal Comments to U.S Department of Education on Graduate Student Loan Rulemaking, February 26, 2026	"ANA calls on the Department of Education to not finalize a rulemaking that would make it harder for the American public to have access to highly educated and trained, licensed, and deeply committed advanced practice nurses."
American Academy of Nursing	Comments to the U.S. Department of Education on the Reimagining and Improving Student Education notice of proposed…, March 2, 2026	The document states no ask in its own words.
PA Education Association	PAEA Statement on Department of Education Action to Restrict Professional Student Loan Access, November 7, 2025	"The PA Education Association (PAEA) urges the Department of Education to revise its proposal before the final rule is released to align with the One Big Beautiful Bill Act's clear criteria and to ensure that PA students are treated as the professional students the law defines them to be."
American Academy of Physician Associates	Federal Student Loan Changes, advocacy page, February 3, 2026	The document states no ask in its own words.
American Physical Therapy Association	APTA Opposes Education Department's Final Rule Restricting Federal Student Loans, May 1, 2026	"APTA is deeply concerned that the U.S. Department of Education failed to meaningfully consider thousands of public comments outlining strong policy arguments against its proposed rule and clear evidence that the doctor of physical therapy degree meets the federal definition of a professional degree in finalizing its latest rule."
American Speech-Language-Hearing Association	Comment letter to Secretary Linda McMahon on the notice of proposed rulemaking, Reimagining and Improving Student…, March 2, 2026	"It is for these reasons-and many more-we urge the Department to include speech-language pathology within the definition of"professional degree" in the final rule."
American Speech-Language-Hearing Association	Comment letter to Secretary Linda McMahon on the notice of proposed rulemaking, Reimagining and Improving Student…, March 2, 2026	"For these reasons-and many more-we urge the Department to include audiology within the definition of"professional degree" in the final rule."

Organization, as it names itself	Document, and its date	What it says on the question, in its own words
American Academy of Audiology	Academy Joins National Push for Inclusive Loan Rules for Health Professions, November 18, 2025	"Adopt a clear and inclusive definition of "professional degree program" that covers any master's or doctoral degree generally required for licensure or certification in health professions."
Council on Social Work Education	Read CSWE's Public Comment on DOE's Proposed Professional Degree Definition, reproducing the comment submitted to…, March 1, 2026	"Excluding social work in the professional degree definition disregards the realities of the required educational preparation and licensure pathways, and will thus have dire consequences for patient care, communities, and workforce across the United States."
National Board for Certified Counselors	NBCC Responds to the Department of Education's Definition of 'Professional Degree', March 19, 2026	"The Alliance calls on the Department to establish a formal petition process that allows excluded programs that meet substantial aspects of the three-part test to be reconsidered for inclusion in the professional degree definition."
American Association for Marriage and Family Therapy	AAMFT Statement on RISE Final Rule Impacting Graduate Loans, no date on the document	"In March, AAMFT submitted comments on the proposed rule to the Department, emphasizing that MFTs should be included in the definition of a "professional degree.""
Association of Schools and Programs of Public Health	Department of Education Proposal Excludes Public Health Degrees from "Professional Degree" Definition, November 12, 2025	"Excluding the MPH and DrPH from the "professional degree" category could restrict students' access to higher federal loan limits, making public health education less financially attainable and potentially weakening the future workforce pipeline."
National Athletic Trainers' Association	Department of Education Rulemaking Update on Athletic Training Programs, no date on the document	"NATA recently submitted public comments to the Department of Education regarding proposed rulemaking on student loan caps and the classification of professional degree programs."
Association of Accredited Naturopathic Medical Colleges and American Association of Naturopathic Physicians	Joint Statement from AANMC and AANP on the RISE Proposed Rule and the Definition of "Professional Degree", February 2, 2026	"The RISE proposal would, for the first time, create a narrow federal definition of "professional degree" that excludes naturopathic medicine and many other health professions-despite meeting longstanding criteria used across federal law, accreditation, and licensure frameworks."
American Institute of Architects	AIA Criticizes Department of Education RISE Rule for Failing to Acknowledge Architecture as a Professional Field, May 1, 2026	"Despite detailed input from architecture schools, students, and architects, the rule classifies Master and Doctor of Architecture degrees as "graduate," not "professional," programs."
American Institute of CPAs	AICPA Urges Department of Education to Include Accounting Among List of Professional Degrees in Response Letter to…, February 27, 2026	"Additionally, the AICPA strongly encouraged the Department to include "accounting" in the definition or retain current language stating that, "professional degrees may include but are not limited to" the list included in the NPRM."
American Association of Colleges for Teacher Education	Public Comment Guide for Professional Student Definition, no date on the document	The document states no ask in its own words.
American Association of Colleges of Pharmacy	Reimagining and Improving Student Education (RISE) Final Rule, June 2, 2026	"The Doctor of Pharmacy (Pharm.D.) is explicitly recognized as a "professional degree.""
American Association of Colleges of Osteopathic Medicine	Department of Education Releases RISE Final Rule, Further Analysis Forthcoming, May 4, 2026	The document states no ask in its own words.
American Optometric Association	AOA makes progress to soften the impact of federal student loan changes, December 17, 2025	The document states no ask in its own words.
American Council on Education	Graduate Loan Limits and Professional Degree Definitions Take Shape in ED Proposal, February 9, 2026	The document states no ask in its own words.

Source: each organization's own published document, retrieved September 16, 2026. Quotations are verbatim from the archived copy and were re-checked against it character for character.

What the table shows, and what it does not. Each row shows that a named organization published a named document on a stated date, and that the document contains the quoted words. It does not show that the organization filed that document with the Department: a document on an organization's website and a comment posted to the docket are two separate records, and section 6.1 covers the second. Where a body appears in both, the two entries are cited separately and neither is offered as evidence of the other. The table is also not a census. A document behind a member login, inside a newsletter, or on a page the searches recorded in Appendix B did not reach would not appear here.

Two rows are coalition letters, and are labelled as such. The Advanced Professional Workforce Alliance letter of March 2, 2026, carries a signature list of forty-four organizations, among them the Academy of Nutrition and Dietetics; it was retrieved from the copy published by another signatory, the National Board for Certified Counselors. The same letter is posted in the docket as ED-2025-OPE-0944-18590 (received March 2, 2026, posted March 4, 2026), byte for byte the same file; a search of the docket for the Academy's name does not return it, because the name appears only inside the attached letter (section 6.1). The coalition letter of the same date, which the American Association of Nurse Practitioners publishes under the file

name Nursing-and-Friends-Comment-Letter-RISE-NPRM.pdf, was retrieved from that copy; the letter's own opening words are "On behalf of the 277 undersigned national and state organizations" (page 1). Signing a letter and publishing it are different acts, and this report records which of the two the document shows.

The Academy of Nutrition and Dietetics is entered on the same terms as every other body. Its own site would not serve its pages to this report's retrieval script on September 16, 2026; each request was answered with a single-sign-on redirect that returned no page content. The news item in Table 4 was therefore read from the Internet Archive's capture of June 7, 2026, of the Academy's own page, and that route is recorded rather than hidden. The item states on its face that it was published on May 19, 2026, says that the Academy "joined fellow coalition members in a sign-on letter responding to the U.S. Department of Education's then proposed rulemaking", and says that the final rule's definition of professional student excludes nutrition and dietetics. A press release the same site carries, whose title indicates it concerns the same question, could not be read by either route; Appendix B records that search and its date, and this report does not treat a page it could not read as a page that says nothing.

Three documents in Table 4 print no date, and carry none in the metadata of the page that serves them. They are entered as carrying no date rather than being given the date on which this report retrieved them.

6.4 Filings sought, found and not found

A filing may leave two different records: an entry in the Department's docket, and a document the organization publishes on its own site. They are different records, and one is not proof of the other. This section lists every filing of either kind that this report looked for and did not find. Each line is a search, with its source, its query and its date, and none of them is a statement that a document does not exist. Where a page could not be read at all, the line says so, and that is a different statement again.

The preamble to the final rule identifies three dietetics bodies by name, at 91 FR 23805 to 23807: the Academy of Nutrition and Dietetics, the Commission on Dietetic Registration and the Accreditation Council for Education in Nutrition and Dietetics. Searches were run for filings by all three, and for three further dietetics and nutrition bodies the preamble does not name.

Table 5. Filings by dietetics and nutrition bodies sought and not found. Each row names the source searched, the date, and the row of Appendix B that carries the query as it was run.

Body, as it names itself	Where it was searched	What came back	Date	Appendix B
Commission on Dietetic Registration	Docket ID ED-2025-OPE-0944, phrase query	Nine posted comments mention the body; every one was read and every one is a comment by a named individual. No filing by the body was found	September 16, 2026	D08-11
Commission on Dietetic Registration	Its own website, four site-restricted passes	No comment letter or public statement on the professional-degree question was returned; the results were the body's own certification, eligibility and continuing-education material	September 16, 2026	D09-01
Accreditation Council for Education in Nutrition and Dietetics	Docket ID ED-2025-OPE-0944, phrase query	Two posted comments mention the body; both were read and both are comments by named individuals. No filing by the body was found	September 16, 2026	D08-12
Accreditation Council for Education in Nutrition and Dietetics	Its own pages	The site served no page content to the request. Nothing was searched, and nothing is claimed	September 16, 2026	D09-02
American Dietetic Association, the Academy's former name	Docket ID ED-2025-OPE-0944, phrase query	The search returned no posted comment	September 16, 2026	D08-13
Nutrition and Dietetics Educators and Preceptors	Docket ID ED-2025-OPE-0944, phrase query	The search returned no posted comment	September 16, 2026	D08-14
Nutrition and Dietetics Educators and Preceptors	Its own website, and a second address for the group	No document on the question was returned, and no free-standing site for the group was reached	September 16, 2026	D09-04
American Society for Nutrition	Docket ID ED-2025-OPE-0944, phrase query	The search returned no posted comment	September 16, 2026	D08-15
American Society for Nutrition	Its own website, four site-restricted passes	No comment letter or public statement on the question was returned	September 16, 2026	D09-03
Academy of Nutrition and Dietetics	Its own website, a press release on the question found by search	The site served no page content and the capture index held no capture. The page could not be read	September 16, 2026	D09-09

Two of those rows are not the same kind of statement as the rest, and the difference is worth stating plainly. The Commission on Dietetic Registration's own site was searched, in four passes, and returned nothing on the question: that is a search result. The Accreditation Council's pages were not searched at all, because the site served no content to the request, and the Academy's press release could not be read for the same reason.

Nothing follows from either of those two rows except that the pages could not be read. The Academy's filing in the docket and its news item of May 19, 2026, were both read, and are reported at sections 6.1 and 6.3.

Three other records were searched for a dietetics filing and returned none.

- **The hearing docket.** Docket ID ED-2025-OPE-0151 held 1,124 posted comments when it was searched on September 15, 2026. Twelve dietetics terms were run against it as single tokens. Two of them, dietitian and dietitians, returned one posted comment, which is a comment by an individual and not a filing by or on behalf of an organization; the other ten returned nothing. Control terms run the same way on the same day returned 781 comments for loan, 361 for physician, forty-four for nursing and fourteen for psychology, so the query reaches the record rather than returning nothing. Two limits bound that result and are stated with it: the interface does not treat a multi-word query as a phrase, and its index does not reach the text of attached documents, so a letter filed only as an attachment would not be found. Appendix B rows D06-T01 to D06-T12 and D06-C01 to D06-C04, whose recorded times fall early on September 16, 2026, in coordinated universal time.
- **The negotiated rulemaking committee's published record.** All 149 documents the Department publishes for the committee were searched on September 16, 2026, for four strings covering nutrition and dietetics, over 29,331,709 characters of extracted text. No transcript, agenda, protocol, discussion draft, negotiator proposal, summary of changes or draft consensus text contains any of them. Appendix B row D07-01.
- **The litigation.** No dietetics organization is named as a plaintiff in any of the five cases read, and the words dietetics, dietitian and nutrition appear in none of the complaints, in the amended complaint, or in the order, searched on September 16, 2026. Appendix B row D10-07.

Beyond the dietetics bodies, phrase searches of the rulemaking docket were run for fourteen further named organizations whose fields the preamble answers in its own sections, and on September 25, 2026, every match was read against the rule stated in section 6.1 (Appendix B rows D08-16 to D08-30). Twelve of the fourteen filed in their own names: the American Physical Therapy Association (ED-2025-OPE-0944-17926), the American Speech-Language-Hearing Association (-16640 and -16622), the American Occupational Therapy Association (-13079), the American Association of Colleges of Nursing (-18051), the American Psychological Association with APA Services (-18026), the American Veterinary Medical Association (-17457), the Association of American Medical Colleges (-11923), the American Association of Nurse Practitioners (-17999), the National Association of Social Workers (-16229), the Council on Social Work Education (-13480), the American Optometric Association (-16894) and the American Bar Association (-16985, which concerns Public Service Loan Forgiveness rather than the definition). Each was posted between February 26 and March 4, 2026. No filing in its own name was found for the American Nurses Association or the American Association of Colleges of Pharmacy; each signed coalition letters posted in the docket, the Nurses Association three (-17167, -17384 and -18870) and the Colleges of Pharmacy the Advanced Professional Workforce Alliance letter (-18590). A filing made only as an attachment, with nothing in the comment box or the organization field that names the body, cannot be found by a text search of this docket (section 6.1), so those two results are searches, not findings that no filing exists.

Nothing in this section says, or is to be read as saying, that any organization chose not to file, or did not act. It says what was searched, where, when, and what came back.

7. The same test, applied to other professions

7.1 How this section is built

The preamble answers profession-specific comments in separate sections. This section reads them the same way: what the Department records commenters as asking, what stated ground it gave, and what it changed. No comparison is drawn beyond what the sections themselves say.

7.2 The professions with their own sections

Table 6. Every profession-specific section in the preamble, the stated ground of decision and the locator.

US Department of Education, Federal Register document 2026-08556, 91 FR 23768 to 23901, published May 1, 2026, effective July 1, 2026; Docket ID ED-2025-OPE-0944. Twenty sections. Basis: the preamble's own headings, taken from the Federal Register structured XML, for the part of the analysis of public comment that answers comments on the professional-degree question (91 FR 23781 to 23809). Sections marked with a dagger are printed beneath the graduate-level nursing heading.

Section heading, as printed	Pages	Did the Department revise the rule for that field	The stated ground, in the Department's own words	Locator
Business, Master's in Business Administration (MBA), and Accounting	91 FR 23791 to 23792	No. "Changes: None."	"there is no single recognized profession that an MBA prepares students to enter"	91 FR 23792
Education (M.Ed./Ed.D./Ed.S./MAT and Teacher-Preparation Concerns)	91 FR 23792 to 23793	No. "Changes: None."	"no State requires an M.Ed. or similar master's degree to begin work as a teacher"	91 FR 23793
Rehabilitation and Therapy Fields (Physical Therapy (PT/DPT), and Occupational Therapy (OT/MSOT/OTD))	91 FR 23793 to 23794	No. "Changes: None."	"Where there are multiple pathways to licensure, like here, the Department finds that the degree is not professional"	91 FR 23793
Naturopathic Medicine (ND)	91 FR 23794 to 23795	No. "Changes: None." four times	"less than half of States license NDs and some States ban the practice of naturopathy altogether"	91 FR 23794

Section heading, as printed	Pages	Did the Department revise the rule for that field	The stated ground, in the Department's own words	Locator
Graduate-Level Nursing (Master of Science in Nursing (MSN), Doctor of Nursing Practice (DNP), Doctor of Nurse Anesthesia Practice (DNAP) Degree Programs	91 FR 23795	No. No Changes line under this heading; the nursing section's three Changes lines are printed at 91 FR 23799	"these factors do not fully support treating the MSN, DNP, or DNAP as being eligible for the higher professional loan limits"	91 FR 23795
Master of Science in Nursing (MSN) †	91 FR 23795 to 23797	No. No Changes line under this heading	"while the MSN appears to satisfy the three parts of the operative test, it fails to satisfy the contextual test provided by the illustrative list of degrees"	91 FR 23795
Doctor of Nursing Practice (DNP) Programs Leading to APRN Professions Other Than Certified Nurse Anesthetist †	91 FR 23797 to 23798	No. No Changes line under this heading	"the DNP appears to satisfy the three parts of the operative test but fails to satisfy the contextual requirements imposed by the illustrative list of credentials"	91 FR 23797
Doctor of Nursing Practice (DNP) in Nurse Anesthesia or Doctor of Nursing Anesthesia Practice (DNAP) †	91 FR 23798 to 23799	No. "Changes: None." three times	"The DNP in Nurse Anesthesia and DNAP appear to satisfy the three parts of the operative test but fail to satisfy the contextual requirements"	91 FR 23798
Physician Assistant/Physician Associate (PA) Degree Programs	91 FR 23799 to 23800	No. "Changes: None."	"after the graduate becomes licensed, their practice must generally be supervised by medical doctors"	91 FR 23800
Public Health (MPH/DrPH and Related Programs)	91 FR 23800 to 23801	No. "Changes: None." twice	"the MPH would not satisfy the incorporated definition because it is not required for entrance into a specific profession and does not itself lead to licensure"	91 FR 23800
Social Work (Master of Social Work (MSW)/Doctor of Social Work (DSW) and Related Pathways)	91 FR 23801 to 23802	No. "Changes: None."	"the MSW fails the operative test for two reasons: (1) it can be completed in as few as five years of postsecondary education and (2) it is at the master's level, not the doctorate level"	91 FR 23801
Pilot Training, Including Federal Aviation Administration (FAA) Certificated Part 141 Flight Education and Training Programs	91 FR 23802	No. "Changes: None."	"pilot training programs generally do not require the completion of or training beyond what is normally provided for in a baccalaureate degree"	91 FR 23802
Architecture, Urban Planning, Interior Design	91 FR 23802 to 23803	No. "Changes: None."	"a graduate architecture degree is not generally required across jurisdictions for entry into the profession"	91 FR 23803
Counseling, Marriage and Family Therapy, and Related Behavioral Health Pathways	91 FR 23803 to 23804	No. "Changes: None." three times and "Changes: None" once, as printed	"The Department declines to treat counseling as a professional degree program"	91 FR 23803
Modern Health Profession Pathways	91 FR 23804 to 23805	No. "Changes: None." five times	"The Department is not revising 34 CFR 685.102 to treat these modern health profession pathways as qualifying professional degree programs"	91 FR 23804
Nutrition and Dietetics	91 FR 23805 to 23807	No. "Changes: None."	"masters degrees leading to RDN certification fail the operative test for two reasons: (1) it is possible to complete some degrees that confer eligibility to take the Registered Dietitian examination in as few as five years of postsecondary education and (2) to the extent that they take six years or longer, such degrees are at the master's level, not the doctorate level"	91 FR 23806

Section heading, as printed	Pages	Did the Department revise the rule for that field	The stated ground, in the Department's own words	Locator
Speech-Language Pathology (SLP) and Audiology (AuD)	91 FR 23807	No. "Changes: None."	"advanced degree, licensure, and certification requirements for SLPs and audiologists are a recent development and therefore were not included in the original list of professional degrees"	91 FR 23807
Acupuncture and Herbal Medicine/Chinese Medicine (AHM)	91 FR 23807	No. "Changes: None."	"the AHM would not satisfy the professional degree definition because the degree is not specifically required to enter the field"	91 FR 23807
Master of Public Policy (MPP)/Master of Public Administration (MPA) and Other Academic, Research, or General Graduate Fields	91 FR 23807 to 23808	No. "Changes: None." four times	"licensure is not required to enter such fields"	91 FR 23808
Undergraduate Pathways Raised in the Professional Student Comments	91 FR 23808 to 23809	No. "Changes: None."	"those programs remain governed by the undergraduate Direct Loan limit framework and are not eligible for the graduate or professional annual loan limits addressed by this rule"	91 FR 23809

Source: US Department of Education, Reimagining and Improving Student Education-Federal Student Loan Program Final Regulations, Federal Register document 2026-08556, 91 FR 23768, May 1, 2026, preamble at 91 FR 23781 to 23809. Headings from the Federal Register structured XML of that document, retrieved September 16, 2026; pages confirmed against the paginated copy published by the Government Publishing Office. Archived copies are identified by SHA-256 in the document register.

What the table shows, and what it does not. Each row records what one section of the preamble is headed, where it is printed, what the Changes line says, and one clause of the ground the Department stated. It does not rank the sections, weigh them against each other, or say why any field was treated as it was. Where two rows are compared anywhere in the text, the comparison is a statement about what two sections say, each cited to its own page. Dietetics appears here on the same terms as every other field; section 5 carries that section in detail.

7.3 The fields the Department declined although it recorded them as meeting the operative test

The Department states in seven passages that a field meets the operative test and nonetheless declines to treat it as awarding a professional degree. Each is given here in the order the preamble prints it, with the additional ground the Department stated and the locator.

1. **Master of Science in Nursing**, 91 FR 23795. "The MSN appears to satisfy the three parts of the operative test but fails to satisfy the contextual requirements imposed by the illustrative list of credentials included in the definition of professional degree." The additional grounds stated are that the degree is at the master's level; that it can be obtained with as little as three years of total postsecondary study; and that in many States the professions it leads to are subject to career-long supervision by, or required collaboration with, a licensed professional in a different profession.
2. **Doctor of Nursing Practice, for advanced practice registered nurse professions other than certified registered nurse anesthetist**, 91 FR 23797. "Like the MSN, the DNP appears to satisfy the three parts of the operative test but fails to satisfy the contextual requirements imposed by the illustrative list of credentials included in the definition of professional degree." The additional grounds stated are the same supervision ground, and that the degree exceeds the minimum credential level required to begin practice.
3. **Doctor of Nursing Practice in Nurse Anesthesia, and the Doctor of Nursing Anesthesia Practice**, 91 FR 23798. "The DNP in Nurse Anesthesia and DNAP appear to satisfy the three parts of the operative test but fail to satisfy the contextual requirements imposed by the illustrative list of credentials included in the definition of professional degree." The additional ground stated is career-long supervision or required collaboration in the majority of States.
4. **Speech-language pathology and audiology**, 91 FR 23807. "The Department acknowledges that SLPs and audiologists meet the operative test, as do many graduate programs." The additional ground stated is that the advanced degree, licensure and certification requirements "are a recent development and therefore were not included in the original list of professional degrees", and that the progression pre-dates the changes made to the definition at 34 CFR 668.2 while the definition was not updated.
5. **Athletic training**, within the section headed Modern Health Profession Pathways, 91 FR 23805. "We also recognize that they meet the operative test, as described by the commenters." The additional ground stated is that athletic trainers are typically supervised by a licensed professional from a different profession.
6. **Certified anesthesiologist assistants**, within the same section, 91 FR 23805. "While these master's programs meet the three-part operative test, CAAs do not operate independently and instead are supervised by anesthesiologists."
7. **Graduate-level nursing, answered again in the cross-cutting section on the directed questions**, 91 FR 23789. The Department states that "while these programs may satisfy the operative definition's three-part test, they do not satisfy the contextual requirements provided by the illustrative list of advanced degrees included within the definition of professional student".

The nutrition and dietetics section is not among these passages. In that section the Department states the opposite conclusion about the test: that "masters degrees leading to RDN certification fail the operative test for two reasons" (91 FR 23806), the reasons stated being that some degrees conferring examination eligibility can be completed in as few as five years of postsecondary education, and that degrees taking six years or longer are at the master's level rather than the doctorate level. Section 5 sets out that passage in full.

This section lists what the Department said about each field. It draws no conclusion about whether the grounds are consistent with one another, and the record read here does not show why the stated grounds differ between sections.

The fields on the enumerated list and what the Department said about the scope of the classification, which section 4 introduces, are set out in Appendix F.

8. What the Department's own analysis counted

The Department's own regulatory impact analysis sets out what it says the professional-degree definition covers and what it says the alternatives would have cost. The passages sit under the heading "Alternatives Considered" at 91 FR 23865, in three parts: "Professional Student Loan Limits" at 91 FR 23866, "Department's Proposed Definition of a Professional Degree Program" at 91 FR 23868, and "Negotiators' Proposed Professional Degree Definition" at 91 FR 23868. The figures below are the Department's, printed with the basis the Department gives for them. None is recomputed, combined or converted here.

The analysis first restates the statutory limits the definition governs: "Graduate students may borrow $20,500 annually with an aggregate limit of $100,000. Professional students may borrow $50,000 annually with an aggregate limit of $200,000" (91 FR 23866). It records that the statute "defines a professional degree as those described under Section 668.2 of title 34, CFR effective July 4, 2025", a definition that "then lists 10 specific fields of study that are included but notes that it is not limited to those" (both at 91 FR 23866).

The baseline the Department compares against is a definition confined to those listed fields. Under it, the analysis states, "only programs from 10 unique 6-digit CIP codes would qualify", and students in them "represent 12.1 percent of Federal student loan borrowers in all graduate and professional programs, and 27.1 percent of all loan dollars disbursed to borrowers in these programs" (both at 91 FR 23867). Those programs, it states, received $10.7 billion in federal student loan disbursements in the 2023-24 award year (91 FR 23867).

Against that baseline the analysis sets out the alternatives. It records that the Department first considered adding a single field, clinical psychology, which would have covered eleven programs and 12.6 percent of graduate borrowers (91 FR 23868). For the approach it adopted, it states: "In total, programs within 38 unique 6-digit CIP codes meet this definition. The Department's definition encompasses 12.9 percent of the Federal student loan borrowers in graduate programs, 0.8 percentage points more than the baseline 10 programs listed in Section 668.2" (91 FR 23868). For the alternative put forward by the non-federal negotiators, it states that the proposal "includes programs in 219 unique 6-digit CIP codes (compared with 38 under the Department's definition) that cover 17.5 percent of graduate student borrowers" (91 FR 23868). The basis the Department gives for the borrower figures is its Office of the Chief Economist using data from the National Student Loan Data System for the 2023-24 award year, and it records that institutions self-report the credential levels on which those definitions rest (footnotes 64 and 66, 91 FR 23867 and 23868).

On the budget, the analysis states that the Department's definition "would increase outlays by $112 million over the 10-year budget window relative to restricting professional degrees to only the 10 programs listed in Section 668.2", and that loan disbursements "would increase by $961 million between 2026-2035 under the Department's definition, mostly due to the addition of programs in Clinical Psychology" (both at 91 FR 23869). Of the negotiators' proposal it states that it "would increase outlays by $1.12 billion in the 2026-2035 budget window" and "would increase loan disbursements by an estimated $9.79 billion, relative to the same baseline" (both at 91 FR 23869). Every one of those figures is stated against the same baseline of the ten listed fields, and that basis travels with the figure here because an outlay estimate without its baseline states nothing.

Two figures in the analysis do not agree with each other, and both are recorded here as published. In the passages quoted above the Department gives the number of six-digit classification codes covered by its own definition as thirty-eight and by the negotiators' proposal as 219 (91 FR 23868). In the summary table on the preceding page, which the rule numbers Table 5.1, the same two alternatives are given as thirty-nine and 224 codes (91 FR 23867). The shares of graduate borrowers agree between the two: the table prints 12.1, 12.6, 12.9 and 17.5 percent across its four columns, matching the text. This report does not reconcile the two counts, does not say which is correct and offers no reason for the difference. It records that the Department published both.

9. The litigation, and the interim list

9.1 The cases

On June 24, 2026, the US District Court for the District of Columbia, in consolidated cases numbered 26-1780 and 26-1941, stayed part of the Department's definition. The lead case is American Association of Nurse Practitioners v. McMahon, No. 1:26-cv-01780, in the United States District Court for the District of Columbia. Its complaint was filed on May 21, 2026 and names six plaintiffs: the American Association of Nurse Practitioners, the National Association of Pediatric Nurse Practitioners, the American Association of Colleges of Nursing, the Association of Schools and Programs of Public Health, the National Education Association, and the American Association for Marriage and Family Therapy. The defendants are Linda McMahon, in her official capacity as Secretary of the United States Department of Education, and the United States Department of Education (complaint, ECF No. 1, at 1). The second case is PA Education Association v. United States Department of Education, No. 1:26-cv-01941, in the same court. Its complaint was filed on June 3, 2026 and names two plaintiffs, the PA Education Association and the American Academy of Physician Associates, against the same two defendants (complaint, ECF No. 1, at 1). Both cases were assigned to Judge Beryl A. Howell, who consolidated the

second into the first by minute order of June 5, 2026, citing Rule 42(a)(2) of the Federal Rules of Civil Procedure and directing that everything be filed in the lead case. The order of June 24, 2026 and the memorandum opinion accompanying it were entered in the consolidated cases as ECF Nos. 45 and 46. On August 3, 2026, the six plaintiffs in the lead case filed an amended and supplemental complaint (ECF No. 53).

Neither docket records an intervenor. One amicus curiae brief was filed, by Los Angeles County, under leave the court granted on June 18, 2026 to what its order describes as thirteen local governments, city officials and municipal health corporations (ECF No. 43). Both dockets, both complaints, the amended complaint, the order and the opinion were searched for intervenor entries on September 16, 2026, and none were found.

Three other cases challenge the same definition. Twenty-five states and the District of Columbia, two of them appearing through their governors, filed State of Maryland v. United States Department of Education, No. 1:26-cv-01957, in the District of Maryland on May 19, 2026 (complaint, ECF No. 1, at 1 to 3); as that docket stood when it was retrieved, no ruling on a preliminary injunction had been entered. Ten nursing organizations filed American Nurses Association v. United States Department of Education, No. 1:26-cv-12443, in the District of Massachusetts on May 29, 2026 (complaint, ECF No. 1, at 1), and on August 10, 2026, that court denied their motion for a preliminary injunction and a stay without prejudice (ECF No. 58, at 41). Four labor organizations filed American Federation of Labor and Congress of Industrial Organizations v. United States Department of Education, No. 1:26-cv-02833, in the District of Columbia on August 11, 2026 (complaint, ECF No. 1, at 1). No appeal was found on any of these dockets as they were retrieved on September 29, 2026.

No dietetics organization is named as a plaintiff in any of the five cases, and the words dietetics, dietitian and nutrition appear in none of the complaints, in the amended complaint, or in the order. The five dockets and every filing retrieved were searched for those terms on September 16, 2026.

The memorandum opinion mentions dietetics once. Listing the Department's answers to comments about workforce effects, it quotes the Department as "recogniz[ing] the seriousness of those concerns" about Registered Dietitian Nutritionists being "essential to chronic disease management, food insecurity, preventive care, and community health, or that lower loan limits will increase reliance on private loans, reduce diversity, and worsen shortages in nutrition care", and records that those concerns were not considered because "those are not factors that Congress directed the Department to consider when classifying degrees as professional degrees or graduate degrees" (memorandum opinion, ECF No. 46, at 14). The citation printed there reads "id. at 12806-07". The quoted language appears in the final rule at 91 FR 23806 and 23807, checked against the paginated Federal Register copy on September 16, 2026; the final rule occupies 91 FR 23768 to 23901.

9.2 What the order did

The order granted both motions in part and denied them in part (order, ECF No. 45, at 2). What it stayed it put in a single ordering paragraph:

> ORDERED that part (i) of the Department of Education's definition of "professional degree" in the Final Rule ("Rule") titled Reimagining and Improving Student Education—Federal Student Loan Program Final Regulations, 91 Fed. Reg. 23768, 23882 (May 1, 2026) (to be codified at 34 C.F.R. § 685.102(b)), and the additional requirement found in the preamble to the Rule that professional degrees cannot "lead[] to employment that ordinarily must be supervised by a licensed professional in a different occupation and cannot be performed independently," id. at 23787, is preliminarily SET ASIDE and STAYED pursuant to 5 U.S.C. § 705

Three further ordering paragraphs on the same page denied the rest of what was asked: the request to set aside and stay part (ii) of the definition, which is the enumerated list of fields; the request to enjoin the Department from enforcing the statutory loan caps until it issued a new rule; and the request that the court order the Department to treat physician associate students as professional students. The order closes, at page 3, "This Order shall remain in effect until further order of the Court." The memorandum opinion of the same date states the holding in the same terms, at page 52: the requests "to preliminarily set aside and stay implementation of the regulatory definition of 'professional degree'—comprised of part (i) of the Rule and the additional free-from-supervision requirement in the preamble to the Rule—are granted. All other requests are denied."

The Department's account of the same order is the Department's, and is set out here separately. Federal Student Aid wrote, in Electronic Announcement GENERAL-26-42, posted June 29, 2026 and updated July 10, 2026, that the court "preliminarily stayed part of the U.S. Department of Education's (the Department's) professional degree definition contained in the Reimagining and Improving Student Education (RISE) Final Rule published in the Federal Register on May 1, 2026." The announcement states that the Department is "confident that the professional degree definition in the RISE Final Rule is lawful and will continue to defend it", and that for the duration of the stay, "based on the Department's understanding of the Court's ruling", it is treating the programs it lists as awarding professional degrees for the purpose of administering statutory loan limits. It adds that "These interim administrative designations are provided solely to facilitate implementation of the Court's order and may change as litigation in the case proceeds." On what remains in force it says that "The vast majority of the RISE Final Rule is unaffected by the Court order and will take effect on July 1, 2026, including the elimination of the Grad PLUS program, the establishment of new annual and aggregate loan limits for graduate and professional students, and the creation of two new repayment plans: the Repayment Assistance Plan and the Tiered Standard Repayment Plan"; that the definition of a professional student in 34 CFR 685.102 "is not affected by the Court order"; and that "The professional degrees in the 11 fields listed in paragraph (ii)(A) of the professional student definition are also unaffected by the Court's order." The Department filed that guidance with the court on June 29, 2026, reporting that it had "published technical guidance for institutions regarding the classification of degree programs for the duration of this Court's stay" (notice of Department action, ECF No. 47, at 1), and filed an updated version on July 10, 2026 (notice of updated Department action, ECF No. 50, at 1).

9.3 The interim list

Federal Student Aid published the interim list in Electronic Announcement GENERAL-26-42, posted June 29, 2026 and updated July 10, 2026. The announcement carries its own identifiers: Electronic Announcement ID "GENERAL-26-42", author "Federal Student Aid", posted date "June 29, 2026" and, at the foot of the page, "Last Modified: 07/10/2026". What follows describes the page as retrieved on September 16, 2026; the text of the page was unchanged when it was retrieved again on September 29, 2026.

The announcement states that the definition of a professional student is untouched: "This provision of the regulation is not affected by the Court order." It then states that the order "preliminarily sets aside and stays the following elements contained in paragraph (i) of that definition, codified in 34 CFR 685.102(b), defining a professional degree as one that:", and prints four elements:

1. "Signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree;"
2. "Is generally at the doctoral level and that requires at least six academic years of postsecondary education coursework for completion, including at least two years of post-baccalaureate level coursework;"
3. "Generally requires professional licensure to begin practice; and"
4. "Includes a four-digit program CIP code, as assigned by the institution or determined by the Secretary, in the same intermediate group as the fields listed in paragraph (ii)(A) of this definition."

It adds that "The professional degrees in the 11 fields listed in paragraph (ii)(A) of the professional student definition are also unaffected by the Court's order." This is the announcement's account of the order, written by Federal Student Aid; the order's own words are at 9.2 above, and the two are not merged.

Two lists follow. The first is headed "Interim List of Programs Treated as Granting Professional Degrees as a Result of Court Order for the Duration of the Court's Stay", with the column headings "6-digit CIP" and "6-digit CIP Title (Degree)". Counted by script from the retrieved page, it has twenty-nine rows. A row is one six-digit program classification code: not a program, an institution, a degree or a student. The announcement attaches a condition, that "Such programs must award the degree in parentheses to qualify for this designation." Two rows, 51.3801 and 51.3818, carry an asterisk, which the page defines beneath the table: "*Includes any program within the same four-digit CIP code, as assigned by the institution or determined by the Secretary, provided it awards the same credential." Twenty-nine is therefore the number of codes printed, and for those two rows the designation reaches codes the list does not print.

The second list is headed "Programs NOT Treated as Programs Granting Professional Degrees as a Result of Court Order for the Duration of the Court's Stay and Based on the Court's Order", with the column headings "6-digit CIP" and "6-digit CIP Title" and no degree designation printed. Counted the same way, it has twenty-five rows. Of these the announcement states that they "are not considered programs that award professional degrees for the duration of the stay."

The page opens with a note recording the update: "Update on July 10, 2026: On June 29, 2026, the Department published the list of Classification of Instructional Programs (CIP) Codes that are designated as professional degree-awarding programs. The Department is now providing additional clarity that the 6-digit CIP codes for the Registered Nursing/Registered Nurse (MSN) (51.3801) and Nursing Practice (DNP) (51.3818) include any program within the same four-digit CIP code, as assigned by the institution or determined by the Secretary, provided it awards the same credential. We are also amending the Clinical Psychology program (42.2801) to include the Ph.D. designation, which was inadvertently not included in the initial list."

What the update changed can be checked rather than taken on the note's word. Before July 10, 2026, the announcement sat at a shorter address, which now returns a redirect to the current one; the Internet Archive holds a capture of that earlier address made on June 30, 2026, carrying the same announcement identifier and a modification date of June 29, 2026, and no note. Comparing that capture with the page retrieved on September 16, 2026, both lists are the same length in both versions, twenty-nine rows and twenty-five, and no code was added to either list or removed from it. Three entries in the first list differ and nothing in the second does: the entry at 42.2801 read "Clinical Psychology (Psy.D.)" and now reads "Clinical Psychology (Ph.D.; Psy.D.)"; and the entries at 51.3801 and 51.3818 now carry the asterisk and its footnote, which the earlier capture does not print. Those are the changes the note describes, and the comparison finds no others.

The announcement states the standing of these designations in its own words: "These interim administrative designations are provided solely to facilitate implementation of the Court's order and may change as litigation in the case proceeds." Both list headings carry the same limit, "for the Duration of the Court's Stay". The counts given above are counts as at September 16, 2026, of a list the issuing body describes as interim.

9.4 Where dietetics sits on the interim list

The classification the rule uses is the Classification of Instructional Programs, kept by the Department's own National Center for Education Statistics. The edition in force is the 2020 edition, which the classification's website describes as "the most recent version of the CIP" and which its own introduction titles "Introduction to the Classification of Instructional Programs: 2020 Edition (CIP-2020)". Codes and titles below are as that edition prints them, retrieved on September 16, 2026.

The classification places dietetics in the four-digit group 51.31, titled "Dietetics and Clinical Nutrition Services." The group prints no description of its own, only the note that "Instructional content for this group of programs is defined in codes 51.3101 - 51.3199."; the classification's introduction states, at 2, that "Program descriptions are not provided at the four-digit summary level", as its standard practice at that level rather than anything particular to this group. Five six-digit codes sit inside the group: 51.3101, "Dietetics/Dietitian."; 51.3102, "Clinical Nutrition/Nutritionist."; 51.3103, "Dietetic Technician."; 51.3104, "Dietitian Assistant."; and 51.3199, "Dietetics and Clinical Nutrition Services, Other." The classification prints two illustrative examples at 51.3101, "Dietetics/Dietitian (RD)" and "Registered Dietitian (RD)", and prints cross-references at 51.3102 to 19.0504, Human Nutrition, and 30.1901, Nutrition Sciences, both of which sit outside the group. The code set was searched rather than assumed: a sweep of every title in the edition on September 16, 2026, for "dietet" and for "dietitian" returns the group and four of its five codes, the exception being 51.3102, whose printed title carries neither word.

Each of these codes was checked against both lists in the announcement, in the copy retrieved on September 16, 2026, by exact code match against the archived page and against the lists parsed from it. Neither the group nor any of its five codes appears on the interim list of programs treated as granting professional degrees, and none appears on the separately printed list of programs not so treated. The two cross-referenced codes appear on neither list. These absences are search results rather than inferences from the announcement's silence about dietetics: three codes that are on the first list, 51.2001, 42.2801 and 51.3801, were searched in the same pass and were found.

The twenty-nine codes on the first list sit in fourteen four-digit groups, which the classification titles 01.80 Veterinary Medicine, 22.01 Law, 39.06 Theological and Ministerial Studies, 42.28 Clinical, Counseling and Applied Psychology, 51.01 Chiropractic, 51.02 Communication Disorders Sciences and Services, 51.04 Dentistry, 51.08 Allied Health and Medical Assisting Services, 51.09 Allied Health Diagnostic, Intervention, and Treatment Professions, 51.12 Medicine, 51.17 Optometry, 51.20 Pharmacy, Pharmaceutical Sciences, and Administration, 51.23 Rehabilitation and Therapeutic Professions, and 51.38 Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing. 51.31 is not one of them. The asterisk that extends two rows of that list to other codes in the same four-digit group attaches to 51.3801 and 51.3818, both of which sit in 51.38.

The criterion the rule adopts is set out here beside those facts and is not applied to them. The adopted definition at 34 CFR 685.102(b), printed at 91 FR 23882, requires that a professional degree "(D) Includes a four-digit program CIP code, as assigned by the institution or determined by the Secretary, in the same intermediate group as the fields listed in paragraph (ii)(A) of this definition." The Department describes the taxonomy it is applying at 91 FR 23786, the second of whose three levels is "A four-digit series nested within each two-digit series, which represents groupings of programs that have comparable content and objectives within those two-digit fields". The classification uses the same term for that level: its introduction states, at 2, that "The four-digit series represent intermediate groupings of programs that have comparable content and objectives." The proposed rule cites that introduction by name at 91 FR 4264, in footnotes 6 and 8. The final rule cites no edition of the classification anywhere, searched on September 16, 2026, across its plain text, its XML and the text layer of its paginated copy. As recorded at 9.3 above, Federal Student Aid lists this four-digit element among the elements of the definition that it says the court's order stayed.

Neither rule prints a dietetics program code. Searched on September 16, 2026, the strings 51.31, 51.3101, 51.3102, 51.3103, 51.3104, 51.3199 and 513101 return no match in the archived plain text or the archived XML of the final rule, in the archived plain text of the proposed rule, or in the text layer of either paginated copy. That is a search for codes and not for the subject: the final rule discusses dietetics in words, in the section quoted earlier in this report, and the proposed rule of January 30, 2026, names dietetics in neither codes nor words. Several tables in the final rule's regulatory impact analysis are printed as images with no text layer, so no automated search reaches their cells.

The announcement does not say in terms how a program on neither list is treated. It identifies the codes designated as professional degree programs for reporting loan originations and disbursements, instructs institutions to report a professional grade level when they originate loans at the professional limits for those programs, and states that most borrowers will be screened at the graduate loan limit (Federal Student Aid, Electronic Announcement GENERAL-26-42, read September 16, 2026).

This section states where the codes sit and what the lists contain on the date they were checked. It does not say that dietetics fails the rule's criterion, and it does not say that dietetics meets it.

What has happened in the litigation and the docket since the stay is recorded in Appendix F.

10. What the record does not show

The record read for this report does not contain deliberation. It does not contain what was said inside the Department, what passed privately between the Department and any organization or person, or what passed privately between organizations. It does not contain any person's or any body's reasons for acting or for not acting, and no document read here states them. It does not contain the weight any submission carried. It does not contain what was said in caucus during the negotiated rulemaking, which the committee's own protocols keep closed and which is not published. These are not gaps in a search: section 2.2 lists them as material the public record does not hold, kept apart from the documents that were sought on a stated date and not obtained.

The record does not contain a count of the people who commented. The Department states in the final rule, at 91 FR 23771, how duplicate campaign submissions and bundled submissions were posted, so the docket does not hold one posted document for each person who wrote, and the 19,631 comments posted to Docket ID ED-2025-OPE-0944 as at September 16, 2026, are not 19,631 writers. The 80,793 comments the Department reports receiving on the proposed rule, a figure it gives at 91 FR 23771, are not divided anywhere in the record between campaign, bundled and individual submissions. No count in this report is a measure of effort, of organization, of support or of standing, and the docket does not record what a filing cost anyone to prepare, how many people stand behind it, or how it was read.

The record does not contain proof that any body did nothing. Where this report says a filing was not found, the statement is bounded by the source searched, the query as run and the date of the run, and it is not a statement that no such filing exists. The searches do not reach everything, and two of their limits were demonstrated rather than assumed: on the hearing docket, Docket ID ED-2025-OPE-0151, a nonsense query returned the same five comments as a single word, and that interface does not treat a multi-word query as a phrase; a word inside an attachment to a posted comment there is not returned by a query for that word, and a letter filed only as an attachment would not appear (Appendix B, rows D06-X01, D06-X03 and D06-D4). Forty-three of the sixty-seven numbered entries on the two consolidated court dockets are not in the free archive and were not read. A docket does not record a meeting, a telephone call, a coalition letter signed under another body's name, or anything else that leaves no filing, and no document read here shows whether any of those occurred.

Table 1 does not contain a causal chain. Its rows are dated events, and the record does not show a connection between any two of them beyond their order and their dates. Where a filing is dated before a decision, no document read here connects the one to the other. Where one field appears on the interim list and another does not, the record holds each field's stated ground as the Department printed it and no account of the two side by side,

and this report draws no comparison the sections do not make.

Nothing in this report answers the question why dietetics was treated as it was. It does not contain an account of anyone's reasons, and the public record read for it does not hold one; what it holds instead is what the Department stated, where it stated it and on what date, what each document says at the locator given, and what each search found and did not find on the date it ran. A reader who wants an account of why will not find one here, and this report does not point toward one.

11. Limitations

What the retrieved record covers. This report reads what was retrieved on September 15 and 16 2026, and read again on September 25 and 29, 2026, and archived, with the exceptions stated at section 2.4 and in Data availability: the statute as enacted; the public hearing notice and the transcripts of the hearing; the 149 documents the Department publishes for the negotiated rulemaking committee; the proposed rule and the final rule with its preamble; the comments posted to the rulemaking docket and to the hearing docket, read through the public interface of the federal rulemaking portal; the filings and statements that organizations publish on their own sites; the dockets of five court cases and the documents freely available from them; the electronic Code of Federal Regulations; the Federal Student Aid announcement carrying the interim list; and the federal classification of instructional programs. Appendix A registers the archived copies, as section 2.4 describes, and Appendix B every search, with the exceptions stated at section 2.1. What was identified and could not be obtained is listed at section 2.2 with the reason and the date of the attempt, kept apart from material that is not a public record at all.

What a docket reading can and cannot carry. Section 6 is built from searches of the rulemaking docket through the portal's public interface, not from the preamble alone. The reading has its own bounds. Every count in section 6 is a count of posted documents in one docket on a stated date, not of people and not of organizations. The sets returned by different search terms overlap and are never added. One paging run returned 9,240 rows carrying 9,237 distinct identifiers, so a recount should expect small movement. The portal's organization field is free text completed by whoever submits a comment, and a filing is recorded here as an organization's only where the filed document itself identifies that organization as the filer. The table of organizational filings is bounded by the searches that produced it and is not a census of the docket's 19,631 posted comments.

A preamble's characterization of comments is not the comments. Section 5.2 and Appendix C set out what the Department records commenters as arguing. That is the Department's own summary, written by the Department, and it is neither the filings themselves nor a count of them. Where this report needs what a body asked for, it uses the filing, at sections 6.1 and 6.3, and quotes it. Nothing in the preamble's summary establishes who argued what, and the two kinds of evidence are kept apart throughout.

Everything here is current to a date. Dockets are live; the courts' free copy lags the court and prints its own last-updated time; the interim list is interim by the announcement's own statement; and a document may be posted, moved or removed between a search date and the release of this report on September 29, 2026. The items that can move are re-pulled on September 24 or 25, 2026 and again on the morning of release, and Appendix E carries the check dates. Anything found to have changed before release is corrected in the text, and anything that changes after release is appended as a dated correction rather than swapped in silently.

One jurisdiction, one rulemaking. This report describes a rulemaking of the United States federal government and the borrowing rules that attach to it. It is not comparative, and it says nothing about how any other country classifies or finances training in dietetics or in any other field. Section 1.2 and the glossary define every term it uses for a reader outside the United States.

What was checked, and what was not. The checking behind this report is of quotation, locator and date: that a document says what it is quoted as saying, at the page given, on the date given. It is not a check of whether anything anyone said is correct, of whether the Department applied its own test correctly, or of whether the court's order was rightly made. Where an archived copy of a cited source differs from the way a document describes it, the difference is recorded as a difference and nothing is inferred from it.

12. Conclusion

On May 1, 2026, the US Department of Education published a final rule defining a professional degree for the purpose of federal graduate borrowing limits, and its preamble answers comments about nutrition and dietetics in a section of its own at 91 FR 23805 to 23807, which states the Department's reasons for not treating those degrees as professional degrees and closes with the line "Changes: None." (91 FR 23807). The same preamble answers nineteen other profession-specific groupings in the same Comments, Discussion and Changes format, and in seven passages it records that a field meets the operative test and is nonetheless declined on a further stated ground. For dietetics it records instead that the degree fails the operative test, on the same two grounds it gives for social work: some qualifying degrees take as few as five years of postsecondary education, and longer ones are at the master's level, not the doctorate (91 FR 23806 and 23801; section 7.3). A federal court stayed part of the definition on June 24, 2026, Federal Student Aid published an interim list of program classification codes on June 29, 2026 and amended three of its entries on July 10, 2026, and none of the five codes the federal classification places in the dietetics group appears on either of that announcement's two lists, checked on September 16, 2026. The record read here shows what was filed, on what date, and what the Department answered; it does not show deliberations, private communications or anyone's reasons, and this report supplies none of its own.

How this report was checked

The status note describes the review. A validity gate of 5,705 checks was run on the final text of this version, and the gate script, its run report and the dated verification sheet, VERIFICATION_R7_2026-09-16.md of September 16, 2026, are deposited with the data. The verification sheet lists each load-bearing claim with its status and the primary source that settles it.

What the gate tests in a documentary report is quotation, locator and date. It matches every quotation in the text against the archived copy of the document it is attributed to, under the declared typographic fold set out at section 2.3; it confirms every Federal Register locator on the paginated copy of the page that carries the printed page number; it recomputes the SHA-256 of every archived file the report cites and compares it with the digest recorded when the file was retrieved or, for the twenty-three register rows whose recorded digest did not match (Appendix A), with the digest recomputed on September 16, 2026; it reconciles every numeric token and every figure written in words in the text, table cells and appendices included, against a value recorded in the build or an allowlist row that gives a reason; it requires every sentence in the report's own voice that states a quantity to carry the locator of the document that issues that figure; and it requires every sentence that reports something as not found to point to the row of Appendix B that carries the query and its date. The gate also runs planted-failure tests on itself, so that a clean run means the tests can discriminate rather than that they were not looking. This report states no estimate of its own making, so there is no quantity in it that an interval or a standard error attaches to; what the gate tests here is transcription, locator and date, and whether a document has been read in the right sense is what the statements of scope in sections 5.5, 10 and 11 address.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, archived and checked the documents and produced the tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the work, reviewed the code output, sources and text, and is responsible for the content.

Data availability

Most primary sources are US federal records: the RISE final rule (91 FR 23768, published May 1, 2026) at the Federal Register and at GovInfo; the Department of Education's negotiated rulemaking committee materials and session transcripts at ed.gov; the regulations.gov docket for the underlying rulemaking; the Code of Federal Regulations as read at eCFR on the dates stated in the text; the CIP code detail pages at the National Center for Education Statistics; and the agency guidance pages quoted. The References identify the final rule, the court filings and the Federal Student Aid announcement by issuer and retrieval date, and the document register identifies every archived copy. The report also reads documents that organizations, universities and other third parties publish, and comment attachments filed in the docket. Federal documents and federal court records are redistributed here as archived copies with their retrieval dates, not as a claim of new rights in them, except eleven responses from the regulations.gov and CourtListener programming interfaces (for two of them a reduced file is carried); those, third-party documents and docket attachments are not redistributed, and the deposit gives each one's SHA-256 and, where the register recorded them, its address and retrieval time instead.

Deposited at 10.5281/zenodo.23572143 (version 1.2; version 1.0 10.5281/zenodo.23044646; concept DOI 10.5281/zenodo.23044645): the archived copies of the federal documents and court records this report cites, except Federal Register document 2025-13238, which the report names only as the document that holds one page and which was not archived, and except the eleven responses described above; for every other document it cites, the SHA-256 checksum and, where the register recorded them, the address and retrieval date; a SHA-256 manifest of the archive's files, recomputed from the files as staged and not copied forward from any retrieval log, and a manifest of the files that version 1.1 adds; the document register (one row for each archived copy that a task's retrieval log listed when the register was assembled on September 16, 2026, with issuer, URL, retrieval time, byte count, checksum and retrieving task where recorded) and, in version 1.1, a copy of it with three columns more (each file's path in the deposit, the version of the record that holds it and the version that added the row) and with rows added for the files it omitted, for the two reduced files and for the copies read after that date, the April 30, 2026, capture and the September 25, 2026, comments among them, which are held by SHA-256 alone; the search logs from each retrieval task and, in version 1.1, the log of Appendix B in full; the quotation register of September 16, 2026 and, in version 1.1, the register of the final text; the retrieval, extraction and assembly scripts for each analysis task except task D00, a first retrieval step whose script is not deposited (the README of version 1.1 also names five further scripts, mentioned in comments of deposited files, that are not deposited); in version 1.1, each task's download log and, for tasks D03, D05, D06, D07, D10, D11 and D13, the results file that the search log names as its basis (the one it names for task D18 is not deposited), and for task D08 the results file that records the search described in section 6.2; the validity gate with its recorded runs; and the dated verification sheet, VERIFICATION_R7_2026-09-16.md. The scripts read the author's working folder, so they do not run from the record alone, and neither does the validity gate; version 1.1 adds `check_supplement.py`, which does run from the record. This report is deposited at 10.5281/zenodo.23572142 (version 1.2; version 1.0 10.5281/zenodo.23044628).

Corrections

Corrections to this report are dated, labelled and appended here; the argument is never silently rewritten. Each correction names what was wrong, where the wrong text or figure came from, who identified it, and whether the argument survives. The version history of the series is in the series Introduction. Errors can be reported to jason@vitaearetehealth.com.

Correction, version 1.1, October 22, 2026. The report described its data record inexactly in 22 places. It said that Appendix B has 116 rows. Its table prints 129, and two checks are described in the text and are not rows of it. It said that the quotation register was deposited with one row for each quotation. The quotation register in version 1.0 has 573 rows. It is the run of September 16, 2026, before the last corrections, and it marks six rows as failing. It said that the document register gives a title, an identifier, a date of the document and the pages read for every document. The document register has no column for any of them. Appendix A printed other columns than the file has. It said that the register lists every archived copy and every document read. The document register omits 86 deposited files. It also omits the comments and attachments read on September 25, 2026, the April 30, 2026, capture and the on-site listing read in a browser on September 29, 2026. The hearing-docket comments read through the portal were not saved. It said that every archived file matched its recorded checksum. Twenty-three did not. It named files that the record did not hold, among them two tables, a results file and the evidence for two checks. It said that the archived copies of every federal document and court record were

deposited. One document was not archived, and version 1.0 withheld nine responses. It said that the scripts for each task were deposited. The script for one task is not deposited. The scripts and the validity gate read the author's working folder and do not run from the record alone. Mostly, the text described the author's working folder and the log as it stood on September 16, 2026, not the record staged from them. Version 1.1 of the data record adds the missing files that can be shared, and its README lists each place. In these places the text now says what the record holds. A read-only AI audit the author directed found those places on October 2, 2026. Two other sentences were inexact. The Glossary said that every route of one lookup reported an article as closed access. One route, the CORE search, returned a service error. Appendix B gave a reason why a first search of the Internet Archive's index missed a capture, and the record does not establish that reason. A read-only AI check of the draft of this version found both on October 6, 2026. No finding changes. The count of rows of Appendix B is now 129, not 116, and the validity gate's count of checks is now 5,705, not 5,568.

Updated October 22, 2026: the declaration of conflicting interest, the status note and the statement on the use of artificial intelligence were updated. The declaration now discloses more. It names his Academy workgroup seat. Its last clause now says that no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report. Two court-search records were reduced to the fields the report relies on; the full responses are identified by hash. The status note and the section on how the report was checked now print 5,705 checks, up from 5,568. None of this changes a finding.

Related reports in this series

Report 6 sets out what the classification does to the arithmetic of entering the profession, and this report carries the record. Neither reproduces the other. The remaining reports in this series are cited here by number and identifier, and no result of any of them is restated. Report 1 measures degree production across thirteen graduate-entry health professions. Report 2 maps registered dietitian practice locations against county chronic disease prevalence and rurality. Report 3 sets out where the limits on Medicare's nutrition therapy benefit sit in statute, regulation and coverage determination, and it is the report in which the author's own public comments in that rulemaking are disclosed. Report 4 compares two federal sources of wage estimates across thirty-seven occupations. Report 5 reads seven public pay systems from their own instruments. Full entries, each with its version and identifier, are in the references.

Glossary

Administrative Procedure Act. The statute setting out how a federal agency makes a rule, codified at title 5 of the United States Code. Its rulemaking section is 5 U.S.C. 553. Abbreviated by the Department in this rulemaking as APA.

Aggregate limit. The cumulative maximum a student may borrow across a course of study, as distinct from an annual limit. For graduate students $100,000 and for professional students $200,000 (91 FR 23866; Public Law 119-21, 139 Stat. 335). A separate lifetime ceiling of $257,500 applies to everything a student borrows (139 Stat. 336).

Annual limit. The maximum a student may borrow in one academic year: $20,500 for a graduate student and $50,000 for a professional student (91 FR 23866; 139 Stat. 334).

Accreditation. "[T]he status of public recognition that an accrediting agency grants to an educational institution or program that meets the agency's standards and requirements" (34 CFR 602.3, captured September 14, 2026). The accrediting agency conducts its work "through voluntary, non-Federal peer review" (same section). Accreditation is a status held by an institution or a program, not by a person. It is not the same as any of the three terms below, which attach to individuals.

Certification. Permission to use a title, rather than permission to do the work. In the formulation of the federal report on occupational licensing, under State certification "individuals seeking to assume a profession's official title must obtain the permission of the government, but anyone is allowed to perform the duties of the profession, regardless of whether or not they have been certified"; and "Certification can also be done by private certifying bodies, which give their imprimatur to workers who have met their standards" (Department of the Treasury Office of Economic Policy, Council of Economic Advisers and Department of Labor, *Occupational Licensing: A Framework for Policymakers*, July 2015, page 7 note 6). Kleiner and Krueger put the same point as: "certification permits any person to perform the relevant tasks" (National Bureau of Economic Research working paper 14979, 2009). A credential awarded by a private board, which marks who may use a title but does not by itself make the work unlawful for anyone else, sits on the certification side of this line rather than the licensure side.

Classification of Instructional Programs code. The federal taxonomy by which every program at an institution receiving federal student aid reports its field of study; abbreviated CIP by the Department and by the National Center for Education Statistics, which maintains it. "The CIP taxonomy is organized on three levels"; the two-digit series "represent the most general groupings of related programs", the four-digit series "represent intermediate groupings of programs that have comparable content and objectives", and the six-digit series identify specific instructional programs (*Introduction to the Classification of Instructional Programs: 2020 Edition*, National Center for Education Statistics, pages 1 to 2, retrieved September 15, 2026). The Department set out the same three levels at 91 FR 4264 and again at 91 FR 23786. The operative test in this rulemaking turns on the four-digit intermediate group, and the interim list is printed in six-digit codes.

Code of Federal Regulations. The compilation of the regulations federal agencies have made, arranged by title and section and abbreviated CFR, so that a citation such as 34 CFR 668.2 means title 34, section 668.2. The Federal Register prints regulations as they issue; the Code of Federal Regulations is where they come to rest.

Comment period. The interval during which anyone may file written views on a proposed rule. The Administrative Procedure Act requires that the agency "give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments" (5 U.S.C. 553). Here the period ran thirty days from January 30, 2026 and closed on March 2, 2026, and the Department reports receiving 80,793 comments on the proposed regulations (91 FR 23771).

Credentialing. In the sociology of occupations, the use of formal credentials to limit who may enter an occupation, one of the practices that literature calls sources of occupational closure. Stuth, writing in that tradition, treats it as one of five such sources, listing "credentialism, licensing, preserving occupational specificity, representation by occupational associations, and unionization" (Stefan Stuth, *Closing in on Closure*, Nomos, 2017, chapter 2). The literature keeps credentialing, certification and licensure apart because they do different work: a credential signals training, a certification protects a title, and a licence restricts practice. This report keeps them apart in the same way, and where a document it quotes uses one of the words loosely, the report quotes it as written and does not restate it.

Docket. The numbered file in which an agency collects the documents of one rulemaking together with the comments filed on it, published on the website the Administrative Procedure Act refers to as "commonly known as regulations.gov" (5 U.S.C. 553). The docket here is Docket ID ED-2025-OPE-0944.

Effective date. The date a regulation begins to operate, which is distinct from the date it is published. The Administrative Procedure Act requires that publication "shall be made not less than 30 days before its effective date" (5 U.S.C. 553). This rule was published on May 1, 2026 and "[t]his final rule is effective on July 1, 2026." (91 FR 23768).

Federal Register. The daily gazette in which the federal government publishes proposed and final rules and other official notices. A citation such as 91 FR 23768 gives the volume and the page: volume 91, page 23768. Page numbers run continuously through a volume, so a page number alone identifies a place in the year's record.

Final rule. The document by which an agency adopts a regulation, carrying both the regulatory text and a preamble explaining it. Rulemaking is defined by statute as "agency process for formulating, amending, or repealing a rule" (5 U.S.C. 551). The final rule in this record is document 2026-08556, published at 91 FR 23768 on May 1, 2026.

Interim list. Not a term of art, and used in this report only for the list of program classification codes that Federal Student Aid published to be applied while the court's stay is in force, in Electronic Announcement GENERAL-26-42. The issuing office calls the designations interim itself and says they "may change as litigation in the case proceeds" (section 9.3).

Licensure. Permission from government to do the work itself, as distinct from permission to use a title. "A license represents formal permission from a government body to practice in an occupation" (Occupational Licensing: A Framework for Policymakers, July 2015, page 7 note 6). It is the most restrictive of the three terms that attach to individuals: where an occupation is licensed, working in it without meeting the government's standards is unlawful, whereas certification leaves the work open to anyone and restricts only the title.

Negotiated rulemaking. A procedure in which the agency convenes a committee of representatives of the parties a rule would affect and seeks agreement on the regulatory text before proposing it. For student aid the Higher Education Act of 1965 requires it: "The Secretary shall obtain public involvement in the development of proposed regulations for this subchapter" (20 U.S.C. 1098a), and the Department records that the Act "requires the Secretary to obtain public input and conduct negotiated rulemaking before issuing proposed regulations for the title IV, HEA programs" (91 FR 23769). The committee convened here was named Reimagining and Improving Student Education, abbreviated RISE by the Department; section 3.5 sets out what the record shows about it.

Notice of proposed rulemaking. The notice by which an agency proposes a rule and opens it to comment; abbreviated NPRM by the Department. "General notice of proposed rule making shall be published in the Federal Register" (5 U.S.C. 553). The notice here is document 2026-01912, published at 91 FR 4254 on January 30, 2026.

Preamble. The explanatory text printed ahead of the regulatory text in a rule document, in which the agency sets out what commenters said and answers it. In this rule the analysis of public comment is part VI, beginning at 91 FR 23771, and the Department states that it "has grouped the comments by the regulatory section and by similar themes" (91 FR 23771). The preamble is where the section headed "Nutrition and Dietetics" sits, at 91 FR 23805 to 23807.

Professional degree, professional student. The classification that decides which pair of ceilings applies. The statute supplied no definition of its own and pointed to section 668.2 of title 34 of the Code of Federal Regulations as in effect on July 4, 2025 (139 Stat. 335); the Department then adopted a definition by regulation, printed at 91 FR 23882 and set out in full at section 4.1. The Department states that the designation "is used solely for purposes of administering title IV loan limit provisions" (91 FR 23784).

Stay. A court order suspending the operation of an agency action while a case proceeds. The Administrative Procedure Act provides that a reviewing court "may issue all necessary and appropriate process to postpone the effective date of an agency action or to preserve status or rights pending conclusion of the review proceedings" (5 U.S.C. 705). The order of June 24, 2026, acted under that section; section 9.2 gives what it stayed in the court's own words.

Title IV. The part of the Higher Education Act of 1965 under which federal student aid, including the loans described here, is authorised and paid.

A note on the last four terms. Accreditation, certification, credentialing and licensure are kept distinct above in the sense the sociology of occupations uses them. The definitions are taken from sources read in full for the passages quoted: 34 CFR 602.3 for accreditation; the 2015 federal report on occupational licensing, with Kleiner and Krueger 2009, for certification and licensure; and Stuth 2017 for credentialing as a source of occupational closure. The article usually cited for the distinction, Kim A. Weeden, "Why Do Some Occupations Pay More than Others? Social Closure and Earnings Inequality in the United States", American Journal of Sociology 108(1), 2002, was sought on September 15, 2026 through Unpaywall,

through the Semantic Scholar and OpenAlex application programming interfaces, and through CORE, an aggregator of open access repositories; Unpaywall, Semantic Scholar and OpenAlex each reported it as closed access with no open copy, the CORE search returned a service error and no result, and no copy was read. It is therefore named here as the origin of the distinction and is not cited as the source of any definition above.

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Fee J. Wages, borrowing limits and the professional-degree list: what the 2026 classification means for entering US clinical dietetics. The Dietetics Workforce Reports, Report 6, version 1.0. Orlando, FL: Vitae Arete LLC; September 29, 2026. 10.5281/zenodo.23044626

Appendix A. Document register

The version 1.0 register has 1,013 rows, one for each archived copy that a task's retrieval log listed when the integration step assembled the register on September 16, 2026; it is deposited as `APPENDIX_A_document_register.csv`. The file's columns are file, issuer, url, retrieved_utc, bytes, sha256, text_sha256, task, note, on_disk and in_deposit. Version 1.1 of the data record carries the same rows, in the same order, in `APPENDIX_A_document_register_v1.1.csv`, with three columns more, deposit_path, deposited_in and added_in, and with rows added after the last of them. The table below prints the head of the register with the title, identifier, date and pages read that the file does not carry. The register is deposited rather than printed because it is longer than the report.

Of the 1,013 rows, 990 were verified at integration by recomputing the SHA-256 of the archived file and matching it against the hash the retrieving task logged. Twenty-three did not match, and each of those rows carries the recomputed hash beside the logged one so that a reader can see which rows are settled and which are not. Twenty-one of the twenty-three are archived search results behind the statement in the Disclosures about the author's own participation. The other two are Federal Register metadata records for the hearing notice and its correction, each of which the logs record as retrieved twice, once in full and once with a field filter. One of those two carries a quotation printed in this report, the docket title quoted in section 3.4; the quotation register matched it against the file as that file stands on disk on September 16, 2026, which is the copy whose recomputed digest the row prints. The remaining twenty-two carry no quotation. Reconciling the logged digests with the files is an open item and is not closed here.

The rows for the final rule and the three copies of it that this report reads are printed here as the head of the register. The last column gives each copy's path from the top folder of the archive.

Issuing body	Title	Identifier	Date	Read	Retrieved (UTC)	Bytes	SHA-256	Deposit path
US Department of Education, Office of Postsecondary Education (via the Office of the Federal Register)	Reimagining and Improving Student Education-Federal Student Loan Program Final Regulations, full text	Federal Register document 2026-08556; 91 FR 23768	May 1, 2026	91 FR 23768 to 23901, whole document	2026-09-16T00:38:12Z, re-pulled and re-confirmed 2026-09-16T00:56:00Z	959,524	6a67d13808e945b5dcfe8afe3d5d7b74573bdb4223445c8df872f9cbc57a709b	documents/rulema
US Government Publishing Office	Paginated Federal Register copy of the same document, volume 91, number 84, Part IV	Federal Register document 2026-08556	May 1, 2026	all 134 pages, 23768 to 23901	2026-09-16T00:56:33Z	1,447,385	21ef3bab376f85734582ebd3e10e7c89133c00c99e6be5d2c1aec671483f56ac	documents/rulema
US Government Publishing Office	GovInfo granule metadata for the same document	granule FR-2026-05-01/2026-08556	May 1, 2026	whole record	2026-09-16T00:56:33Z	21,613	bcf2747fe7d1695611da31ba58f03dc75e2f73f1ada3491e0ad38635ba17ecd5	documents/rulema 08556.xml
Office of the Federal Register, National Archives and Records Administration	Metadata record for the same document	document 2026-08556	retrieved record	whole record	2026-09-16T00:41:10Z, re-pulled and re-confirmed 2026-09-16T00:56:33Z	2,060	2c0d55ed4ec486cd91f818ba8cf627b3c1bf36b979a40cd91b85595ff40d7130	documents/rulema

Appendix B. Search log

Every search this report ran, in one table, with the date and time of each run; the two checks that are not rows of it are named at section 2.1. Times are given in coordinated universal time where the task recorded a time and as a date where it recorded only a date. A row records what was searched, where, when, and what came back. **No row is a statement that a document does not exist.** Where a row underwrites an absence statement in the text, the last column gives that statement. Rows whose last column is empty are searches that found what they were looking for, or controls run to show that a query reaches the record.

The four searches at D07-01, D13-01, D13-02 and D18-04 are sweeps of a whole corpus rather than single queries; each is one row here, and the per-document detail of the largest of them, the 149 published committee documents, is deposited with the data as a separate file of 149 rows.

One note on the dates. A row carries the time its own task recorded, in coordinated universal time. Several searches were run in the evening of September 15, 2026, United States Eastern time, which is early on September 16, 2026, in coordinated universal time. Where the text of this report gives September 15, 2026, for a search whose row here is stamped early on September 16, 2026, the two are the same moment. Nothing is adjusted in either direction.

Row	Source	Query, exactly as run	Run
D03-01	Internet Archive capture index, Commission on Dietetic Registration page 'RD Examination - Eligibility Requirements'	`capture index for the page over two windows, 1 January 2026 to 31 December 2026 and 1 February 2026 to 1 September 2026`	2026-09-16

Row	Source	Query, exactly as run	Run
D03-02	Archived plain text of the final rule, Federal Register document 2026-08556	`phrase search of the whole document for "Academy of Nutrition and Dietetics"`	2026-09-15
D03-03	Internet Archive CDX index, the same Commission on Dietetic Registration page at every address variant, including the address with a trailing slash that the Department's footnote cites	`url=cdrnet.org/RDNeligibility&from=20260101&to=20260920&output=json&fl=timestamp,original,statuscode`	2026-09-25
D05-01	Archived plain text of the proposed rule, Federal Register document 2026-01912	`case-insensitive whole-document search for nutrition, nutritional, dietetic, dietetics, dietitian, dietician, nutritionist, registered dietitian`	2026-09-15
D05-02	Paginated copy of the proposed rule issued by the Government Publishing Office	`the same eight terms, same method, over the text layer of the paginated copy`	2026-09-15
D05-03	Archived plain text of the proposed rule, Federal Register document 2026-01912	`positive controls in the same file by the same method: professional degree, chiropractic, theology, podiatry`	2026-09-15
D05-04	eCFR version history for 34 CFR 668.2	`the section's published amendment history, pulled in full`	2026-09-15
D06-C01	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=loan`	2026-09-16T01:22:00Z

Row	Source	Query, exactly as run	Run
D06-C02	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=physician`	2026-09-16T01:22:03Z
D06-C03	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=nursing`	2026-09-16T01:22:01Z
D06-C04	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=psychology`	2026-09-16T01:22:02Z
D06-D1	Archived transcripts of both sessions of the public hearing of August 7, 2025	`thirteen terms anchored on word boundaries: nutrition, nutritional, nutritionist, nutritionists, dietetic, dietetics, dietitian, dietitians, dietician, dieticians, dietary, RDN, LDN`	2026-09-15
D06-D2	The same two transcripts	`the same thirteen terms as plain substrings, without word-boundary anchoring, run as a control on the method`	2026-09-15
D06-D3	The hearing notice at 90 FR 35261 to 35264; the Department's negotiated rulemaking page for 2025 and 2026; the contents of Docket ID ED-2025-OPE-0151	`search of all three for a published list of the speakers at the hearing of 7 August 2025`	2026-09-15
D06-D4	Six posted comments in Docket ID ED-2025-OPE-0151 returned by the broader queries, retrieved in full with their attachments	`retrieval and reading of each comment and each attachment, looking for a dietetics term or a filing by a dietetics body`	2026-09-15

Row	Source	Query, exactly as run	Run
D06-D5	Archived plain text of the final rule (2026-08556) and of the proposed rule (2026-01912)	search of the final rule for 1,864, and of the proposed rule for 1,846 and 80,793	2026-09-15
D06-T01	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=nutrition	2026-09-16T01:21:52Z
D06-T02	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=nutritional	2026-09-16T01:21:52Z
D06-T03	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=nutritionists	2026-09-16T01:21:53Z
D06-T04	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=dietetic	2026-09-16T01:21:54Z
D06-T05	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=dietetics	2026-09-16T01:21:54Z
D06-T06	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=dietitian	2026-09-16T01:21:55Z
D06-T07	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=dietitians	2026-09-16T01:21:55Z

Row	Source	Query, exactly as run	Run
D06-T08	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=dietician`	2026-09-16T01:21:56Z
D06-T09	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=dieticians`	2026-09-16T01:21:56Z
D06-T10	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=dietary`	2026-09-16T01:21:57Z
D06-T11	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=RDN`	2026-09-16T01:21:58Z
D06-T12	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=LDN`	2026-09-16T01:21:59Z
D06-X01	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=academy`	2026-09-16T01:22:05Z
D06-X02	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=Academy of Nutrition and Dietetics`	2026-09-16T01:22:08Z
D06-X03	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=zzqqxx academy`	2026-09-16T01:22:09Z
D06-X04	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=ISPA`	2026-09-16T01:22:07Z
D06-X05	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=food`	2026-09-16T01:21:59Z
D06-X06	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=massage`	2026-09-16T01:22:06Z

Row	Source	Query, exactly as run	Run
D06-X07	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=otolaryngology`	2026-09-16T01:22:04Z
D06-X08	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=registered`	2026-09-16T01:22:06Z
D06-X09	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=registered dietitian`	2026-09-16T01:22:09Z
D06-X10	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=medical nutrition therapy`	2026-09-16T01:22:12Z
D06-X11	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151 (2025 Virtual Public Hearing)	`filter[docketId]=ED-2025-OPE-0151&filter[searchTerm]=nutrition and dietetics`	2026-09-16T01:22:13Z
D07-01	All 149 documents the Department publishes as negotiated rulemaking committee documents, archived and text-extracted	`terms nutrition|dietet|dietit|dietar, case-insensitive, over 29,331,709 characters of extracted text`	2026-09-16
D07-02	Federal Register documents 2025-13998, 2025-14333 and 2025-19019, and the Department's committee page	`the same four terms, same method, over the archived text and the paginated copies`	2026-09-16

Row	Source	Query, exactly as run	Run
D07-03	Committee document ‘List of Programs (4-digit CIPS)’, distributed November 5, 2025	search of the document for any code in the 51.31 series	2026-09-16
D07-04	Federal Register API, documents published between July 7 and 25, 2025	enumeration of every document published in that window, selecting those whose printed page range contains page 31836 of volume 90	2026-09-16
D08-01	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5	2026-09-16T01:32:51Z
D08-02	regulations.gov API (api.regulations.gov v4)	documents?filter[docketId]=ED-2025-OPE-0944&page[size]=5	2026-09-16T01:32:51Z
D08-03	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5&filter[searchTerm]=%22professional%20degree%22	2026-09-16T01:32:51Z
D08-04	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5&filter[searchTerm]=%22nutrition%20and%20dietetics%22	2026-09-16T01:32:51Z
D08-05	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5&filter[searchTerm]=dietetics	2026-09-16T01:32:51Z
D08-06	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5&filter[searchTerm]=dietitian	2026-09-16T01:32:51Z
D08-07	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5&filter[searchTerm]=%22registered%20dietitian%22	2026-09-16T01:32:51Z
D08-08	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5&filter[searchTerm]=nutrition	2026-09-16T01:32:51Z
D08-09	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&page[size]=5&filter[searchTerm]=%22Academy%20of%20Nutrition%20and%20Dietetics%22	2026-09-16T01:32:51Z
D08-10	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="Academy of Nutrition and Dietetics"&page[size]=5	2026-09-16T01:26:36Z
D08-11	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="Commission on Dietetic Registration"&page[size]=5	2026-09-16T01:26:36Z

Row	Source	Query, exactly as run	Run
D08-12	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="Accreditation Council for Education in Nutrition and Dietetics"&page[size]=5	2026-09-16T01:26:36Z
D08-13	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Dietetic Association"&page[size]=5	2026-09-16T01:26:36Z
D08-14	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="Nutrition and Dietetics Educators and Preceptors"&page[size]=5	2026-09-16T01:26:36Z
D08-15	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Society for Nutrition"&page[size]=5	2026-09-16T01:26:36Z
D08-16	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Physical Therapy Association"&page[size]=5	2026-09-16T01:26:36Z
D08-17	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Speech-Language-Hearing Association"&page[size]=5	2026-09-16T01:26:36Z
D08-18	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Occupational Therapy Association"&page[size]=5	2026-09-16T01:26:36Z
D08-19	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Nurses Association"&page[size]=5	2026-09-16T01:26:36Z
D08-20	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Association of Colleges of Nursing"&page[size]=5	2026-09-16T01:26:36Z
D08-21	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Psychological Association"&page[size]=5	2026-09-16T01:26:36Z
D08-22	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Association of Colleges of Pharmacy"&page[size]=5	2026-09-16T01:26:36Z
D08-23	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Veterinary Medical Association"&page[size]=5	2026-09-16T01:26:36Z
D08-24	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="Association of American Medical Colleges"&page[size]=5	2026-09-16T01:26:36Z
D08-25	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Association of Nurse Practitioners"&page[size]=5	2026-09-16T01:26:36Z
D08-26	regulations.gov API (api.regulations.gov v4)	comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="National Association of Social Workers"&page[size]=5	2026-09-16T01:26:36Z

Row	Source	Query, exactly as run	Run
D08-27	regulations.gov API (api.regulations.gov v4)	`comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="Council on Social Work Education"&page[size]=5`	2026-09-16T01:26:36Z
D08-28	regulations.gov API (api.regulations.gov v4)	`comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Optometric Association"&page[size]=5`	2026-09-16T01:26:36Z
D08-29	regulations.gov API (api.regulations.gov v4)	`comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="American Bar Association"&page[size]=5`	2026-09-16T01:26:36Z
D08-30	regulations.gov API (api.regulations.gov v4)	`comments?filter[docketId]=ED-2025-OPE-0944&filter[searchTerm]="<name>"&page[size]=250` for each of the fourteen names in rows D08-16 to D08-29, every page read; the abbreviation and affiliate names; and thirty-five single-word probes, each a word found only inside one attachment	2026-09-25T18:18:27Z to 2026-09-25T18:44:50Z
D09-01	Commission on Dietetic Registration, its own website (cdrnet.org)	`site-restricted web search of cdrnet.org for "professional degree" together with Department of Education, loan limits, comment and statement, in four passes`	2026-09-16
D09-02	Accreditation Council for Education in Nutrition and Dietetics, its own website (eatrightpro.org/acend)	`site-restricted web search of eatrightpro.org for the professional-degree question, and a direct request for the ACEND pages`	2026-09-16

Row	Source	Query, exactly as run	Run
D09-03	American Society for Nutrition, its own website (nutrition.org)	site-restricted web search of nutrition.org for "professional degree" together with Department of Education, RISE and loan limits, in four passes	2026-09-16
D09-04	Nutrition and Dietetics Educators and Preceptors, its own website (ndepnet.org, nutritioneducators.org)	site-restricted web search for "professional degree" together with Department of Education, RISE and loan limits	2026-09-16
D09-05	American Occupational Therapy Association, its own website (aota.org)	direct request for two advocacy-news pages found by web search, with an ordinary browser user agent	2026-09-16
D09-06	Association of American Medical Colleges, its own website (aamc.org)	direct request for the comment letter at aamc.org/media/85716/download	2026-09-16
D09-07	American Veterinary Medical Association, its own website (avma.org)	direct request for the student-loan page found by web search	2026-09-16
D09-08	American Bar Association, its own website (americanbar.org)	direct request for the Washington Letter item of May 2026 on the student-loan rule	2026-09-16

Row	Source	Query, exactly as run	Run
D09-09	Academy of Nutrition and Dietetics, its own website (eatrightpro.org)	direct requests for the news centre, the public policy news item and the press release found by web search	2026-09-16
D10-01	CourtListener search API, dockets	type=d&court=dcd&q=docketNumber:"1:26-cv-01780"	2026-09-16T00:59:33Z
D10-02	CourtListener search API, dockets	type=d&court=dcd&q=docketNumber:"1:26-cv-01941"	2026-09-16T00:59:33Z
D10-03	CourtListener search API, dockets, all courts indexed, filed from January 1, 2026	type=d&q="professional degree" "student aid"&filed_after=2026-01-01	2026-09-16T00:59:33Z
D10-04	CourtListener search API, dockets, all courts indexed, filed from May 1, 2026	type=d&q=McMahon "professional degree"&filed_after=2026-05-01	2026-09-16T00:59:33Z
D10-05	CourtListener search API, opinions, filed from June 1, 2026	type=o&q="professional degree" RISE&filed_after=2026-06-01	2026-09-16T00:59:33Z
D10-06	The dockets of both consolidated cases, both complaints, the amended and supplemental complaint, the order and the memorandum opinion, as archived	scan of all seven documents for an intervenor entry or an intervenor party	2026-09-16

Row	Source	Query, exactly as run	Run
D10-07	Both complaints, the amended and supplemental complaint, the order, and the retrieved dockets of all five cases	`search for dietetics, dietitian and nutrition over the archived copies`	2026-09-16
D10-08	CourtListener, Court of Appeals for the District of Columbia Circuit, filed from June 1, 2026	`search for the lead case name`	2026-09-16
D11-01	Federal Student Aid Electronic Announcement GENERAL-26-42, as retrieved	`scripted sweep of both printed lists and of the whole rendered page text for diet, dietet, nutrition and 51.31`	2026-09-16
D11-02	Internet Archive captures of the announcement, at both of its addresses	`capture index for the pre-update address and the current address`	2026-09-16
D11-03	Internet Archive CDX index, the announcement's pre-update address and its updated address	`url=fsapartners.ed.gov/knowledge-center/library/electronic-announcements/2026-06-29/*&from=20260625&to=20260920&output=json&fl=timestamp,original,statuscode`	2026-09-25
D12-01	CourtListener search API, dockets (type=d)	`caseName:"Nurse Practitioners" AND caseName:McMahon`	2026-09-16T01:37:44Z

Row	Source	Query, exactly as run	Run
D12-02	CourtListener search API, dockets (type=d)	`caseName:"PA Education Association"`	2026-09-16T01:37:46Z
D12-03	CourtListener search API, dockets (type=d), Court of Appeals for the District of Columbia Circuit, filed after June 24, 2026	`q=McMahon&court=cadc&filed_after=2026-06-24`	2026-09-16T01:37:47Z
D12-04	CourtListener search API, filings (type=r), filed after June 24, 2026	`q=notice of appeal AND "Nurse Practitioners"&filed_after=2026-06-24`	2026-09-16T01:37:49Z
D12-05	Archived docket pages of all five cases, entry descriptions	`scan of every parsed docket entry description for the string 'notice of appeal', case-insensitive, across 238 entries on the five dockets`	2026-09-16T01:39:20Z
D12-06	Federal Register API, documents by agency docket identifier	`conditions[docket_id]=ED-2025-OPE-0944&order=newest&per_page=100`	2026-09-16T01:36:16Z
D12-07	Federal Register API, documents by regulation identifier	`conditions[regulation_id_number]=1840-AD98&order=newest&per_page=100`	2026-09-16T01:36:17Z
D12-08	Federal Register API, 2026 documents citing 34 CFR part 685	`conditions[cfr][title]=34&conditions[cfr][part]=685&conditions[publication_date][gte]=2026-01-01&order=newest`	2026-09-16T01:36:17Z

Row	Source	Query, exactly as run	Run
D12-09	regulations.gov API, agency documents in the rulemaking docket	`filter[docketId]=ED-2025-OPE-0944&sort=-postedDate&page[size]=25 (operator's key read from the key file at run time; not recorded)`	2026-09-16T01:37:51Z
D12-10	Federal Student Aid sitemap, the site's own index of published pages	`enumeration of every URL under /knowledge-center/library/electronic-announcements/ in sitemap.xml pages 1 and 2, filtered to a posted date of 2026-06-25 or later`	2026-09-16T01:36:18Z
D12-11	Internet Archive CDX index, captures of the Federal Student Aid announcements path	`url=fsapartners.ed.gov/knowledge-center/library/electronic-announcements*&from=20260625&to=20260916&collapse=urlkey`	2026-09-16T01:26:00Z
D12-12	Federal Student Aid, the announcement's pre-update address	`HEAD of /knowledge-center/library/electronic-announcements/2026-06-29/update-list-professional-degree-programs-due-court-order`	2026-09-16T01:31:00Z
D12-13	Federal Student Aid, on-site listing of electronic announcements	`four addresses tried: /knowledge-center/library/electronic-announcements; /knowledge-center/library?type=electronic-announcements; /knowledge-center/library/resource-type/electronic-announcements; /knowledge-center/search?search_api_fulltext=professional degree`	2026-09-16T01:31:00Z
D12-14	eCFR, section 685.102 of title 34 as currently codified	`retrieval of the section page, with sweeps of the codified text for 'supervis', 'dietet', 'dietitian', 'nutrition' and '51.31'`	2026-09-16T01:36:18Z

Row	Source	Query, exactly as run	Run
D12-15	eCFR, amendment history of section 685.102 and currency of title 34	`versions/title-34.json?part=685&section=685.102 and titles.json`	2026-09-16T01:36:17Z
D12-16	Federal Register, full text of document 2026-13286	`search of the archived text for the DATES caption and for every amendatory instruction naming section 685.102`	2026-09-16T01:36:17Z
D12-17	National Center for Education Statistics, Classification of Instructional Programs	`retrieval of the classification site and reading of the edition it presents as current`	2026-09-16T01:37:50Z
D13-01	Classification of Instructional Programs, 2020 edition, every printed title	`sweep of every title in the edition for dietet or dietitian`	2026-09-16
D13-02	Classification of Instructional Programs, 2020 edition, every printed title	`sweep of every title in the edition for nutrition`	2026-09-16
D13-03	The final rule in three renderings (archived plain text, archived XML, text layer of the paginated copy) and the archived plain text of the proposed rule	`search for 51.31, 51.3101, 51.3102, 51.3103, 51.3104, 51.3199 and 513101`	2026-09-16
D13-04	The final rule in the same three renderings	`search for "Introduction to the Classification", "2020 Edition", "CIP-2020" and "cipcode"`	2026-09-16

Row	Source	Query, exactly as run	Run
D13-05	Electronic Announcement GENERAL-26-42 as archived by D11, both lists and the rendered page text	`exact code match for 51.31, 51.3101, 51.3102, 51.3103, 51.3104, 51.3199, 19.0504 and 30.1901, run twice, with controls 51.2001, 42.2801 and 51.3801`	2026-09-16
D18-01	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0944	`phrase searches for "Jason Fee", "Fee, Jason", "Jason M. Fee", "Vitae Arete", "vitaearetehealth" and "jason@vitaearetehealth.com"`	2026-09-15
D18-02	regulations.gov API, comments endpoint, Docket ID ED-2025-OPE-0151	`the same six author terms`	2026-09-15
D18-03	regulations.gov API, comments endpoint, Medicare docket CMS-2026-2377	`phrase search for "Jason Fee", run first as a positive control on the query shape`	2026-09-15
D18-04	The two archived transcripts of the hearing of August 7, 2025, the eighteen published transcripts of the committee's sessions, and both versions of the committee member list	`scan of all twenty-two documents for the author's name`	2026-09-15
D26-01	CourtListener search API, dockets (type=d)	`caseName:"Nurse Practitioners" AND caseName:McMahon`	2026-09-29T18:31:57Z

Row	Source	Query, exactly as run	Run
D26-02	CourtListener search API, dockets (type=d)	`caseName:"PA Education Association"`	2026-09-29T18:31:59Z
D26-03	CourtListener search API, dockets (type=d), Court of Appeals for the District of Columbia Circuit, filed after June 24, 2026	`q=McMahon&court=cadc&filed_after=2026-06-24`	2026-09-29T18:32:00Z
D26-04	CourtListener search API, filings (type=r), filed after June 24, 2026	`q=notice of appeal AND "Nurse Practitioners"&filed_after=2026-06-24`	2026-09-29T18:32:06Z
D26-05	Docket pages of all five cases retrieved on September 29, 2026, entry descriptions	`scan of every parsed docket entry description for the string 'notice of appeal', case-insensitive, across 262 entries on the five dockets`	2026-09-29T18:51:27Z
D26-06	Federal Register API, documents by agency docket identifier and by regulation identifier	`conditions[docket_id]=ED-2025-OPE-0944 and conditions[regulation_id_number]=1840-AD98, order=newest, per_page=100`	2026-09-29T18:29:27Z
D26-07	regulations.gov API, agency documents in the rulemaking docket	`filter[docketId]=ED-2025-OPE-0944&sort=-postedDate&page[size]=25 (operator's key read from the key file at run time; not recorded)`	2026-09-29T18:32:08Z
D26-08	Federal Student Aid sitemap, the site's own index of published pages	`enumeration of every URL under /knowledge-center/library/electronic-announcements/ in sitemap.xml pages 1 and 2, filtered to a posted date of 2026-06-25 or later`	2026-09-29T18:29:30Z

Row	Source	Query, exactly as run	Run
D26-09	Federal Student Aid, on-site listing of electronic announcements, read in a browser	`the Electronic Announcements resource-type listing, every announcement from GENERAL-26-42 to the newest`	2026-09-29
D26-10	Federal Student Aid, the announcement's pre-update address	`HEAD of /knowledge-center/library/electronic-announcements/2026-06-29/update-list-professional-degree-programs-due-court-order`	2026-09-29T18:52:56Z

Appendix C. The profession-specific sections in full

Each entry gives the heading exactly as printed, the pages, and a summary of the section's Comments, Discussion and Changes passages in the Department's own terms. Twenty sections, the same twenty rows as Table 6. Summaries report what the Department records commenters as arguing and what the Department stated in answer. They attribute no motive, intention or attitude to the Department, to any organization the Department names, or to any commenter.

Source throughout: US Department of Education, Reimagining and Improving Student Education-Federal Student Loan Program Final Regulations, Federal Register document 2026-08556, 91 FR 23768, published May 1, 2026; Docket ID ED-2025-OPE-0944. Quotations used in section 7 are reproduced here with their locators.

C1. Business, Master's in Business Administration (MBA), and Accounting

91 FR 23791 to 23792. One Comments, Discussion and Changes cycle.

Comments. The Department records comments from business school stakeholders, accounting faculty, accounting organizations, State certified public accountant societies and students, urging it to treat certain business and accounting graduate programs as professional degree programs. It records arguments that the MBA and related programs are practice oriented and function as career entry or leadership credentials; that executive MBA programs serve working professionals and regional leadership pipelines; that doctoral business programs prepare faculty and administrators; and that graduate accounting programs remain a widely used route to certified public accountant licensure even where States provide more than one educational pathway.

Discussion. The Department states it is not revising § 685.102 to treat MBA, graduate accounting or related business programs as professional degree programs, and that the rule applies the framework Congress cross-referenced rather than treating that cross-reference as an open-ended basis for expanding the category. It states that an MBA does not satisfy the incorporated definition where it is not required for entrance into a specific profession and does not itself carry accompanying licensure, and that "there is no single recognized profession that an MBA prepares students to enter" (91 FR 23792). On accounting it states that an applicant for certified public accountant licensure must complete 150 credit hours but "is not required to have earned a specific post-baccalaureate degree", and that the master's degree "does not signify the beginning of practice in a given profession, because earning 150 credit hours is the primary determinate" (91 FR 23792).

Changes. "None."

C2. Education (M.Ed./Ed.D./Ed.S./MAT and Teacher-Preparation Concerns)

91 FR 23792 to 23793. One cycle.

Comments. The Department records many comments urging it to treat educator-preparation degrees and related graduate education programs as professional degree programs or otherwise to provide greater borrowing capacity for educators, citing teacher shortages, supervised field and clinical components, and the role of graduate study in licensure advancement, leadership and specialization. It records that commenters referenced the Master of Arts in Teaching, Master of Education, Education Specialist, Master of Library Sciences and Doctor of Education, that some argued graduate programs provide initial certification for school administrators, and that others argued career changers pursue master's level programs for initial certification.

Discussion. The Department states it is not revising § 685.102 to treat education pathways as qualifying professional degree programs, and that in applying the incorporated definition it looks to the structure of the three-part operative test and the context supplied by the enumerated examples, rather than to broader workforce need, public importance or the general professional value of the work. It states that although several States require

teachers to obtain a master's degree to maintain a license, "no State requires an M.Ed. or similar master's degree to begin work as a teacher" (91 FR 23793), and that an Ed.D. may offer career advancement but is not required for entrance into a profession or as a prerequisite for licensure. On school leadership roles it states that those jobs do not require licensure and that there is no specific pathway that must be followed to become a school administrator.

Changes. "None."

C3. Rehabilitation and Therapy Fields (Physical Therapy (PT/DPT), and Occupational Therapy (OT/MSOT/OTD))

91 FR 23793 to 23794. One cycle.

Comments. The Department records numerous comments urging it to treat physical therapy, occupational therapy and related pathways as qualifying professional degree programs, arguing that these are licensed health-professions pathways requiring graduate or doctoral education, extensive clinical training, national examinations and State licensure. It records the argument that the Doctor of Physical Therapy is now the entry-to-practice credential nationwide and that the Department should not rely on older historical treatment; the argument that graduation from an accredited occupational therapy program is the route to certification and State licensure, and that the proposed rule misread the occupational-therapy entry pathway by treating the Occupational Therapist Eligibility Determination process as an alternative domestic route; and arguments about clinical intensity, private borrowing, access and workforce shortages.

Discussion. The Department states that the profession's move to a doctoral-entry model "establishes that the profession's educational requirements have changed over time; it does not establish that PT must therefore be treated as falling within the incorporated professional-degree framework". It states that many States provide for licensure for individuals holding a master's degree in physical therapy, and that "Where there are multiple pathways to licensure, like here, the Department finds that the degree is not professional" (91 FR 23793). It states a concern that recognising the shift from master's to doctoral credential "could create a moral hazard to incentivize unnecessary degree inflation", and that none of the degrees on the illustrative list has a history of degree inflation. On occupational therapy it states that the commenters' argument at most establishes that the field is a graduate-entry licensed clinical field for United States educated students, and that accreditation, national board eligibility, front-loaded tuition and workforce demand are not independently sufficient to establish professional degree status.

Changes. "None."

C4. Naturopathic Medicine (ND)

91 FR 23794 to 23795. Three Comments passages and four Changes lines.

Comments. The Department records comments urging it to include the Doctor of Naturopathic Medicine, arguing that naturopathic medical education is comparable in rigor and structure to other medical pathways, that entry to practice in regulating jurisdictions requires an accredited doctoral program, a licensing examination and State licensure, and that ND programs satisfy the three-part operative test. It records the argument that the Department is improperly reading "generally required" to mean licensure in a majority of States and that licensure in 26 jurisdictions is sufficient. In a second passage it records disagreement with the Department's characterisation of the regulatory landscape as unsettled, and a comparison to osteopathic medicine and chiropractic. In a third it records reliance on National Center for Education Statistics classifications and on Federal Student Aid Handbook terminology describing the ND as a first professional degree since 1999. A fourth passage records a comparison of the naturopathy and chiropractic program classification definitions.

Discussion. The Department states that the ND "does not pass all parts of the operative test", and that it determined the ND "would not satisfy the first and third part of the professional degree definition because less than half of States license NDs and some States ban the practice of naturopathy altogether" (91 FR 23794). It states that every degree on the illustrative list leads to professions that are legal in every State. On the second passage it states that it continues to consider naturopathy unsettled and that the history of other degree programs is not relevant. On the third it states that the definition references § 668.2 as codified on the date of enactment, that naturopathy has never been included since the Department dropped "first" from "first professional degree" in 2007, and that inclusion in data tables is irrelevant. On the fourth it states that comparable language between two classification definitions does not alone make two programs substantially similar.

Changes. "None." after each of the four passages.

C5. Graduate-Level Nursing (Master of Science in Nursing (MSN), Doctor of Nursing Practice (DNP), Doctor of Nurse Anesthesia Practice (DNAP) Degree Programs

91 FR 23795. One Comments passage; no Changes line under this heading. The heading is printed with an unclosed parenthesis and is reproduced as printed. Three sections are printed beneath it and are entered separately at C6, C7 and C8.

Comments. The Department records that graduate nursing students, advanced practice nurses, nurse educators, nurse anesthesia stakeholders and professional associations urged it to include graduate-level nursing programs, describing them as clinically intensive, competency based, highly regulated and essential to the health care system; that many comments focused on nurse anesthesia education; that commenters argued the Department's analysis is inconsistent because it asks whether graduate education is required to enter nursing generally rather than an advanced role; and that commenters took issue with reliance on State supervision requirements.

Discussion. The Department states that designation as professional "does not reflect a value judgment", and that program cost, academic rigor and the importance of nursing "have no bearing on our determination whether these graduate-level nursing programs are eligible for the higher loan limits". It states that concerns about private borrowing and the pipeline "are not relevant for these purposes because the law does not permit us to use those bases as considerations". It states that rigor, licensure linkage and doctoral entry "do support the conclusion that nurse practitioner, clinical nurse specialist, certified registered nurse anesthetist, and certified nurse midwife are all distinct professions", but that "these factors do not fully support treating the MSN, DNP, or DNAP as being eligible for the higher professional loan limits" (91 FR 23795), and that its rationale for each credential is set out below.

Changes. No Changes line is printed under this heading.

C6. Master of Science in Nursing (MSN) †

91 FR 23795 to 23797. Printed beneath the graduate-level nursing heading; no Comments passage and no Changes line of its own.

Discussion. The Department states: "The MSN appears to satisfy the three parts of the operative test but fails to satisfy the contextual requirements imposed by the illustrative list of credentials included in the definition of professional degree." (91 FR 23795). It then works through the three parts and states that each is met. It states that the MSN nonetheless fails the contextual test because it is at the master's level; because it can be obtained with as little as three years of total postsecondary study; and because in many States nurse practitioners, certified nurse midwives and clinical nurse specialists may be required to practise under the supervision of, or in collaboration with, a licensed professional in a different profession. It states that the illustrative list contains only three non-doctoral degrees, and that no State imposes on the listed professions a restriction comparable to those some States impose on these nursing professions.

Changes. No Changes line is printed under this heading.

C7. Doctor of Nursing Practice (DNP) Programs Leading to APRN Professions Other Than Certified Nurse Anesthetist †

91 FR 23797 to 23798. Printed beneath the graduate-level nursing heading; no Comments passage and no Changes line of its own.

Discussion. The Department states: "Like the MSN, the DNP appears to satisfy the three parts of the operative test but fails to satisfy the contextual requirements imposed by the illustrative list of credentials included in the definition of professional degree." (91 FR 23797). It states two grounds: that in many States these professions are subject to career-long supervision or to required collaboration with a licensed professional in a different profession, and that the DNP exceeds the minimum credential level required to begin practice, the MSN being the minimum. It states that with a sole exception, law, each profession with multiple listed degrees has those degrees at the same credential level, and that it would be illogical to treat the DNP as satisfying the list when it has determined that the MSN, leading to the same professions, does not.

Changes. No Changes line is printed under this heading.

C8. Doctor of Nursing Practice (DNP) in Nurse Anesthesia or Doctor of Nursing Anesthesia Practice (DNAP) †

91 FR 23798 to 23799. Printed beneath the graduate-level nursing heading. Three Comments passages and three Changes lines, which are the nursing section's only Changes lines.

Discussion. The Department states: "The DNP in Nurse Anesthesia and DNAP appear to satisfy the three parts of the operative test but fail to satisfy the contextual requirements imposed by the illustrative list of credentials included in the definition of professional degree." (91 FR 23798). It states the ground as career-long supervision or required collaboration in the majority of States, and gives its count of States granting independent practice authority and of States requiring a physician relationship. On graduate certificate programs it states that certificate programs are distinct from degree programs and are therefore not eligible. Answering comments that urged inclusion of nursing programs in a named four-digit classification series, it states that the characteristics the listed professions have in common "do not include the degrees that lead to employment that must be supervised by a licensed professional in another profession and cannot be performed independently". Answering comments that nursing programs meet the three-part test, it states that graduate-level nursing programs "do not satisfy all elements of the definition of professional student". Answering comments that a supervision criterion was added without authority, it states the criterion follows from applying the interpretive canon it names to the listed degrees, and that the criterion is not applied only to nursing, citing its treatment of physician assistants.

Changes. "None." after each of the three passages.

C9. Physician Assistant/Physician Associate (PA) Degree Programs

91 FR 23799 to 23800. One cycle.

Comments. The Department records numerous comments asserting that PA programs should be treated as qualifying professional degree programs, describing PA education as a graduate entry, licensure-leading pathway, and stating that graduates in all fifty States and the District of Columbia must complete an accredited program, obtain a master's degree and pass a national certifying examination. It records the argument that reliance on variation in collaboration or supervision is overstated because post-degree supervision exists in other included professions; the argument that a scope-of-practice requirement was not raised during negotiated rulemaking and so gained no consensus; and the argument that the rule is misaligned with stated primary care and rural health workforce priorities.

Discussion. The Department states that it declines to include PA programs, and that it does not interpret the existence of a master's level entry credential, national examination or formal licensure structure as sufficient. It states that its observations about credential level, licensure, scope of practice, prescribing authority, collaboration and supervision "do not create a new regulatory test" but explain why it does not view PA pathways as fitting the incorporated framework. It states that after a graduate becomes licensed, "their practice must generally be supervised by medical doctors" (91 FR 23800), and that with few exceptions States do not provide independent practice authority for licensed physician assistants. On workforce priorities it states that Congress did not ask it to align the definition to workforce transformation, shortage or relative importance.

Changes. "None."

C10. Public Health (MPH/DrPH and Related Programs)

91 FR 23800 to 23801. Two cycles.

Comments. The Department records many comments urging it to treat the Master of Public Health, the Doctor of Public Health and related pathways as qualifying professional degree programs, describing them as practice oriented and accreditation governed, arguing that professional authority in public health often derives from governmental and statutory functions rather than a single universal licence, and that accreditors distinguish these from research pathways. A second passage records the argument that these degrees are the standard entry or preferred qualification for epidemiologists and public health analysts in government hiring.

Discussion. The Department states it is not revising § 685.102, and that it does not adopt a broader standard under which pathways qualify because they are costly, socially valuable or associated with substantial public need. It states that the proposed rule "specifically explained that the Department was not defining professional degree by reference to workforce conditions", and that "the MPH would not satisfy the incorporated definition because it is not required for entrance into a specific profession and does not itself lead to licensure" (91 FR 23800). On the second passage it states that employer preference is "a matter of preference rather than licensure requirements for the profession" (91 FR 23801), that licensure is not required for epidemiology or other public health positions, and that the designation does not affect the names schools or accreditors use.

Changes. "None." after each passage.

C11. Social Work (Master of Social Work (MSW)/Doctor of Social Work (DSW) and Related Pathways)

91 FR 23801 to 23802. One cycle.

Comments. The Department records extensive comments urging it to treat MSW and DSW pathways as professional degree programs, from students, practitioners, faculty and advocates. It records arguments that graduate social work education is necessary for independent clinical licensure; that the advanced standing pathway the proposed rule relied on is a rare option and most students complete a two-year program; that the Department conflated the possibility of some employment with a bachelor's degree with whether graduate education is required for independent clinical practice; that clinical social work should be treated as a distinct professional pathway, with reference to State licensure structures, the Association of Social Work Boards, a licensure compact, the Bureau of Labor Statistics and a definition in the Social Security Act; and that the Department's reasoning focuses too heavily on beginning practice rather than qualification for independent practice.

Discussion. The Department states it is not revising § 685.102. It states that it recognises licensed social work as a distinct profession but that this "has no bearing on the definition of professional degree". It states that States differ, that some license at the bachelor's level and others require a master's degree, that no State requires a doctorate to enter the profession, and that it therefore cannot say an MSW is generally required. It states: "the MSW fails the operative test for two reasons: (1) it can be completed in as few as five years of postsecondary education and (2) it is at the master's level, not the doctorate level" (91 FR 23801), citing advanced standing pathways at named institutions. It states that it rejects the comparison to clinical psychology because the MSW and DSW are not generally required to obtain entry-level licensure or to begin practice, and because clinical social work "is better understood as a specialization within social work rather than a separate profession" (91 FR 23802).

Changes. "None."

C12. Pilot Training, Including Federal Aviation Administration (FAA) Certificated Part 141 Flight Education and Training Programs

91 FR 23802. One cycle.

Comments. The Department records that commenters representing the aviation industry and pilot training argued that Part 141 programs combine academic instruction, intensive skills based training and mandatory licensure pathways; that these programs are subject to dual oversight; that required flight training commonly adds approximately $80,000 to $100,000 beyond tuition and fees; that the programs function like graduate education in substance while remaining undergraduate in structure, deliberately, to avoid credential inflation; and that commenters asked that flight students be treated as graduate students, some proposing amendments and others asking for an interpretive clarification.

Discussion. The Department states that "pilot training programs generally do not require the completion of or training beyond what is normally provided for in a baccalaureate degree" (91 FR 23802), that individuals can become credentialed as a pilot without first earning a baccalaureate degree and therefore fail the second part of the operative test, and that these programs are not graduate programs because a graduate program requires a bachelor's degree as a prerequisite. It states that because pilot training programs are awarded at the baccalaureate level and no higher, it cannot include them in the definition of graduate student.

Changes. "None."

C13. Architecture, Urban Planning, Interior Design

91 FR 23802 to 23803. One cycle. Printed beneath the group heading "Other Professional Degree Field-Specific Comments Concerning Professional Student Classification" at 91 FR 23802.

Comments. The Department records extensive comments from deans of architecture programs, accrediting and professional organizations, students and practitioners urging inclusion of architecture and in some instances landscape architecture, describing architecture as a licensed profession with accredited pathways, supervised experience, examinations and legally protected titles. It records arguments that the Master of Architecture is the post-baccalaureate professional degree designed to meet licensure requirements; that post-degree experience and examination requirements are analogous to medical residency; that the use of law and theology as comparators reveals inconsistency; and that many States have no in-State Bachelor of Architecture option.

Discussion. The Department states it is not revising § 685.102 to treat architecture, landscape architecture or related design fields as qualifying pathways. It states that it does not conclude that architecture fits the framework "where a graduate architecture degree is not generally required across jurisdictions for entry into the profession" (91 FR 23803) and where a five-year Bachelor of Architecture commonly serves as the academic predicate for licensure. It states that the same structural concern applies to landscape architecture, where multiple pathways exist, and that it declines a broader criteria-based rule.

Changes. "None."

C14. Counseling, Marriage and Family Therapy, and Related Behavioral Health Pathways

91 FR 23803 to 23804. Four cycles.

Comments. The Department records many comments urging it to treat clinical mental health counseling, professional counseling, marriage and family therapy, art therapy and related pathways as professional degree programs, describing them as graduate entry and licensure leading, with supervised practicum, post-degree supervised hours and examination; citing accreditation frameworks; and arguing that excluding counseling while including clinical psychology is arbitrary. Later passages record arguments for marriage and family therapy and applied behaviour analysis, for the Master's in Genetic Counseling, and for art therapy, each with its accreditation, certification and licensure structure.

Discussion. The Department states: "The Department declines to treat counseling as a professional degree program" (91 FR 23803), and that the rule implements the cross-reference through a bounded framework rather than an open-ended classification system based on accreditation, licensure structure, terminal degree status, workforce need or parity. On marriage and family therapy and applied behaviour analysis it states that most States require the degree but some allow degrees in related fields, and that "neither the MFT nor the Master's in ABA are specifically required for entry and cannot be considered a professional degree" (91 FR 23804). On genetic counseling it states that as of January 2026 twelve States do not require licensure and that, given continuous change, "it cannot be considered professional given that licensure is an unsettled area". On art therapy it states that some States allow degrees in related mental health counseling fields and that licensure is inconsistent from State to State, so the degree is not specifically required for entry.

Changes. "None." after three passages; "None" without a full stop after the marriage and family therapy passage, as printed.

C15. Modern Health Profession Pathways

91 FR 23804 to 23805. Five cycles.

Comments. The Department records comments concerning athletic training, certified anesthesiologist assistant programs, respiratory therapy, medical laboratory science, orthotics and prosthetics, cardiovascular perfusion and similar pathways, argued to be post-baccalaureate, accreditation driven, clinically intensive and tied to certification, examination or licensure. Later passages record arguments for allied health programs generally and for radiologic assistants; for orthotics and prosthetics, including that the field has a dedicated program classification code; for athletic training, that since 2022 a master's degree is required with no alternate pathway and licensure is required in 49 States and the District of Columbia; and for certified anesthesiologist assistants.

Discussion. The Department states: "The Department is not revising 34 CFR 685.102 to treat these modern health profession pathways as qualifying professional degree programs" (91 FR 23804). On allied health it states that "supervision by a licensed professional from a different profession" (91 FR 23805) disqualifies a student from being considered professional for the purpose of loan limits, and that several of the fields permit entry with an associate or bachelor's degree. On orthotics and prosthetics it states the degree is not required for entry, that licensure is required in 15 States, that multiple certification pathways exist, and that the existence of a classification code does not itself attribute a program to the list. On athletic training it states: "We also recognize that they meet the operative test, as described by the commenters." (91 FR 23805), and that the programs are nonetheless not professional degrees because athletic trainers are typically supervised by a licensed professional from a different profession. On certified anesthesiologist assistants it states: "While these master's programs meet the three-part operative test, CAAs do not operate independently and instead are supervised by anesthesiologists." (91 FR 23805).

Changes. "None." after each of the five passages.

C16. Nutrition and Dietetics

91 FR 23805 to 23807. One cycle. Section 5 of the report carries this section in full; the entry here is on the same terms as every other field.

Comments. The Department records comments urging it to treat nutrition and dietetics programs leading to Registered Dietitian Nutritionist credentialing as qualifying professional degree programs, arguing that preparation is now a structured graduate entry pathway requiring a master's degree, accredited supervised practice and credentialing; that supervised practice is mandatory rather than later advancement; that programs are rigorous, full time and costly; and that registered dietitian nutritionists are licensed or otherwise regulated health professionals. It records program directors and faculty, the Academy of Nutrition and Dietetics by name, and individual commenters.

Discussion. The Department states it is not revising § 685.102. It states that it considers the structure of the existing regulation, the context supplied by the enumerated examples, the characteristics of the program and the requirements of the profession, rather than broader workforce need, public health value or the general importance of the work. It states that the framework asks whether the degree itself functions as the graduate level academic threshold for beginning practice, and that the pathway does not satisfy it where "the graduate credential at issue is not the basis for entry into the broader nutrition or dietetics field as a whole" (91 FR 23806). It states that it does not dispute that supervised practice and credentialing are mandatory features of the pathway. It sets out the examination eligibility routes, citing the Commission on Dietetic Registration, and states that a doctorate is not generally required to enter the profession. It states that "masters degrees leading to RDN certification fail the operative test for two reasons" (91 FR 23806), the reasons stated being that some qualifying degrees can be completed in as few as five years of postsecondary education and that degrees taking six years or longer are at the master's level rather than the doctorate level. It states that the workforce, cost and access arguments "are not factors that Congress directed the Department to consider" (91 FR 23807).

Changes. "None."

C17. Speech-Language Pathology (SLP) and Audiology (AuD)

91 FR 23807. One cycle.

Comments. The Department records that commenters stated speech-language pathologists and audiologists should be considered professional students because entry requires advanced graduate education, extensive supervised clinical training, national certification and State licensure; that speech-language pathologists must earn a master's degree and audiologists a doctoral degree; that these are mandatory pathways in all fifty States and the District of Columbia; that one association argued similar patient care processes to listed degrees; and that commenters cited the proposed rule's supervision language to argue that speech-language pathologists practise without supervision once licensed.

Discussion. The Department states: "The Department acknowledges that SLPs and audiologists meet the operative test, as do many graduate programs." (91 FR 23807). It states that, like physical therapists, "advanced degree, licensure, and certification requirements for SLPs and audiologists are a recent development and therefore were not included in the original list of professional degrees" (91 FR 23807), and that this degree progression pre-dates the changes made to the definition in 34 CFR 668.2 yet the Department did not update the definition to include them.

Changes. "None."

C18. Acupuncture and Herbal Medicine/Chinese Medicine (AHM)

91 FR 23807. One cycle.

Comments. The Department records requests to treat these programs as professional degree programs, described as accredited, graduate-level, licensure-leading clinical training with thousands of hours of coursework and supervised patient care, national board examinations and State licensure; that Medicare covers acupuncture for chronic low back pain and the Department of Veterans Affairs integrates acupuncture in a named model; that insurers reimburse the services; and that the program classification code describes preparation for independent professional practice.

Discussion. The Department states that although licensure and completion of a graduate-level program are required to practise as a licensed acupuncturist, "these credentials are not the only way people enter the field of acupuncture", citing dry needling by physical therapists and medical acupuncture by physicians in many States. It states that the profession therefore has multiple entry points, and that "the AHM would not satisfy the professional degree definition because the degree is not specifically required to enter the field" (91 FR 23807).

Changes. "None."

C19. Master of Public Policy (MPP)/Master of Public Administration (MPA) and Other Academic, Research, or General Graduate Fields

91 FR 23807 to 23808. Four cycles.

Comments. The Department records a set of comments it describes as comparatively smaller and less substantiated, concerning fields that do not fit the clinical or licensure-centred categories, referencing public policy and public administration, engineering, anthropology, archaeology and faculty-oriented pathways. Later passages record arguments for engineering, particularly civil and structural pathways and Professional Engineer licensure; for archaeology, citing Federal and State permitting requirements, named statutes and a register of professional archaeologists; and for master's and graduate certificate programs preparing students for nonprofit and public-sector roles.

Discussion. The Department restates the three-part operative test and states that individuals can enter the public policy or public administration fields without an advanced degree or any degree, and that "licensure is not required to enter such fields" (91 FR 23808). On engineering it states that graduate training "is not required to enter the engineering profession". On archaeology it states that employer preference is a matter of preference rather than licensure standards and that the programs are not required for entrance or postbaccalaureate training. On the public administration certificates it states that they "cannot be considered professional degrees because they do not meet any of these conditions".

Changes. "None." after each of the four passages.

C20. Undergraduate Pathways Raised in the Professional Student Comments

91 FR 23808 to 23809. One cycle.

Comments. The Department records that commenters referenced undergraduate pathways, including bachelor's level social work, dental hygiene and mixed undergraduate and graduate design pathways, as comparators, either to argue that "beginning practice" was read too narrowly or to show that some professions involve layered educational structures. It records architecture and landscape architecture commenters arguing that the existence of a professional undergraduate degree should not disqualify post-baccalaureate pathways.

Discussion. The Department states it is not revising the rule on this basis, that the framework "does not turn simply on whether a field has both undergraduate and graduate educational pathways", and that it continues to consider whether the graduate degree itself functions as the academic threshold for beginning practice. It states that the comments underscore that some professions have layered educational and licensure models but do not alter its conclusion, and that "those programs remain governed by the undergraduate Direct Loan limit framework and are not eligible for the graduate or professional annual loan limits addressed by this rule" (91 FR 23809).

Changes. "None."

Note on the remaining headings in the block

Twenty-three further headings stand in the same part of the preamble, at 91 FR 23781 to 23802. Five of them are group headings carrying no body text. The rest answer cross-cutting or criterion-specific comments rather than comments about a named field: the general support and general opposition sections, the section on the definition Congress provided, the scope and legal effect section, the sections on each element of the operative test, on supervision, on specialization and concentration, on the evolution of a profession to advanced degrees, on the two-digit classification level, on transparency, the directed-questions analysis, the pre-existing-interest section and the section preserving the fields already on the enumerated list. They are listed in full, with their pages and line ranges, in `RESULTS_D04_sections_2026-09-15.json` (deposited under `code/analysis/D04/` in version 1.1 of the data record) under `other_headings_in_block`, so that the twenty entries above can be seen to be a class and not a selection. The report draws on them in sections 4 and 7.4 rather than here.

Appendix D. The dietetics section, reproduced with locators

What this is. The section headed "Nutrition and Dietetics" in the preamble to the final regulations of the US Department of Education, 91 FR 23768 (May 1, 2026), Federal Register document 2026-08556, reproduced in full at 91 FR 23805 to 23807 so that every quotation in section 5 can be checked in place.

Public domain and provenance. Works of the United States government are in the public domain and are reproduced here in full for that reason. The text is taken from the plain-text edition served by the Office of the Federal Register, archived as `FR_2026-08556_fulltext.txt`, SHA-256 `6a67d13808e945b5dcfe8afe3d5d7b74573bdb4223445c8df872f9cbc57a709b`. Every page attribution below was confirmed against the paginated Federal Register copy issued by the Government Publishing Office, archived as `FR_2026-08556_paginated.pdf`, SHA-256 `21ef3bab376f85734582ebd3e10e7c89133c00c99e6be5d2c1aec671483f56ac`. Nothing is omitted, summarized or corrected.

How it is set out. The plain-text edition wraps its lines; those wraps are joined here into the paragraphs the printed page carries. Its typewriter conventions are rendered as the printed page sets them: `` `and '' as quotation marks,—as an em dash,Sec.as the section sign, and\39` `` as a footnote reference. The page breaks are printed in place, in square brackets, at the exact words where the printed page turns. Two irregularities of the printed text are reproduced as printed and are discussed in section 5: the absent space in "Dietetics(ACEND)—accredited", and the sentence ending "not generally required to enter the profession," which closes with a comma.

Two places where this reproduction keeps the plain-text edition's own typography. A span of Federal Register pages inside a citation is set here with the hyphen that edition uses, as in "91 FR 4260-65", where the printed page sets an en dash; section 5 quotes it as the printed page sets it. The internet addresses in footnote 40 are reproduced with the line breaks both editions carry inside them, so they are broken across spaces; the unbroken address of the first page is given in section 5; the address of the second carries a text fragment, which section 5 describes and does not print; and the document register at Appendix A has a row for the archived copy of each page, with the second address without its fragment.

One difference between the two editions, resolved in favour of the printed page. The plain-text edition places the block carrying footnote 40 after its marker for page 23807. The paginated copy prints footnote 40 at the foot of the columns on page 23806, with footnote 39. Footnotes 39 and 40 are therefore cited in this report to 91 FR 23806.

[91 FR 23805]

Nutrition and Dietetics

Comments: The Department received comments urging it to treat nutrition and dietetics programs that lead to Registered Dietitian Nutritionist (RDN) credentialing as qualifying professional degree programs. These commenters argued that RDN preparation is now a structured graduate entry pathway requiring a master's degree, accredited supervised practice, and subsequent credentialing before entry into the RDN workforce. Many commenters

[91 FR 23806]

emphasized that the required supervised practice and clinical training are not optional components of later professional advancement, but mandatory elements of the pathway to RDN eligibility. Commenters also stressed that nutrition and dietetics programs are rigorous, full time, and costly, and that students often cannot work while completing the combined academic and supervised practice requirements. A recurring argument was that the graduate borrowing limits do not reflect the real cost of required RDN preparation and would therefore force students to rely on higher interest private loans, delay or prevent completion of training, or abandon the profession altogether. Commenters further argued that RDNs are licensed or otherwise regulated health professionals who play essential roles in hospitals, long term care, chronic disease management, food insecurity, preventive care, and community health, and that excluding these pathways would weaken an already strained workforce and reduce diversity in the future nutrition workforce.

Several commenters offered more specific examples. Program directors and faculty commenters emphasized that ACEND accredited master's, plus supervised practice programs, are now the required educational route to RDN credentialing, and argued that the financial structure of those programs is comparable to other graduate health pathways already treated as professional. The Academy of Nutrition and Dietetics argued that RDNs are licensed healthcare professionals who complete a master's degree, supervised practice, and extensive clinical training before entering the workforce and that lower borrowing limits will worsen shortages in hospitals, long term care, community health, and rural settings. Individual commenters similarly stressed that their internships required full-time clinical or hospital rotations of 40 or more hours per week, that outside employment was impracticable during their time to credential, and that they relied on Federal loans to complete their training. Other commenters argued that RDNs reduce health care costs through disease prevention, nutrition counseling, and medical nutrition therapy and that Federal student aid policy should reflect the structure of modern dietetics training, rather than older assumptions about the field.

Discussion: The Department is not revising § 685.102 to treat nutrition and dietetics pathways that lead to RDN credentialing as qualifying professional degree programs. As explained in the NPRM (91 FR 4260-65), this final rule implements Congress's cross reference to the existing definition of professional degree in 34 CFR 668.2 for title IV loan limit purposes.

In applying that incorporated definition, the Department considers the structure of the existing regulation, the context supplied by the enumerated examples, the characteristics of the program, and the requirements of the profession, rather than broader workforce need, public health value, or the general importance of the work. Under that framework, the Department does not adopt commenters' request to treat nutrition and dietetics pathways as professional degree programs because the RDN pathway now requires a master's degree, accredited supervised practice, and credentialing.

That is the core reason the Department is not revising the rule here. The incorporated framework does not ask whether a graduate credential has become the preferred or current route to a valued healthcare credential, or whether a profession now uses a master's degree plus supervised practice as part of one important pathway into regulated work. It asks, in substance, whether the degree itself functions as the graduate level academic threshold for beginning practice in the profession within the framework Congress chose to incorporate. The Department concludes that the RDN pathway does not satisfy that framework where the graduate credential at issue is not the basis for entry into the broader nutrition or dietetics field as a whole, and where commenters' arguments depend heavily on the structure of one credentialing pathway within a broader field of nutrition related practice. The Department therefore does not revise the rule merely because the RDN pathway is now graduate entry, supervised practice based, and professionally significant.

The Department has considered commenters' argument that required supervised practice is not optional advancement, but a mandatory component of qualifying for RDN credentialing, and that RDNs therefore should be treated more like other clinically oriented, graduate entry health professions. The Department does not dispute that supervised practice and credentialing are mandatory features of the RDN pathway. However, the various degrees that enable the holder to become credentialed as an RDN do not meet the necessary criteria to be for eligibility for the higher professional student loan limits.

To obtain credentialing as an RDN, an individual is required to pass the Registered Dietitian examination administered by the Commission on Dietetic Registration (CDR). To be eligible to take the examination (among other requirements), an individual must hold a graduate degree from an Accreditation Council for Education in Nutrition and Dietetics(ACEND)—accredited didactic program in dietetics, an ACEND-accredited coordinated program, an ACEND-accredited graduate program, or, alternatively, a doctorate from an institution that is accredited by an institutional accreditor recognized by the Department.[footnote 39] No State requires a doctorate degree to enter the profession and the CDR only requires a doctorate degree if an applicant to take the Registered Dietitian examination does not have a graduate degree from an ACEND-accredited program, which may well be at the master's-level. Therefore, a doctorate (in dietetics or otherwise) is not generally required to enter the profession,

> [footnote 39] Comm'n on Dietetic Registration, RD EXAMINATION—ELIGIBILITY REQUIREMENTS, cdrnet.org (last visited on Apr. 16, 2026), https://www.cdrnet.org/RDNeligibility/.

In addition, masters degrees leading to RDN certification fail the operative test for two reasons: (1) it is possible to complete some degrees that confer eligibility to take the Registered Dietitian examination in as few as five years of postsecondary education and (2) to the extent that they take six years or longer, such degrees are at the master's level, not the doctorate level. We note that it is possible to obtain a master's degree from an ACEND-accredited program in as little as one year.[footnote 40] As a result, a student may obtain the necessary education to sit for the Registered

Dietitian examination in as few as five years, not the six years required by the definitional test. The Department likewise declines to revise the rule based on commenters' arguments that RDNs are essential to chronic disease management, food insecurity, preventive care, and community health, or that lower loan limits will increase reliance on private loans, reduce diversity, and worsen shortages in nutrition care. The Department recognizes the seriousness of those concerns, including commenters' descriptions of full-time internship demands, inability to work during a borrowers' time to completion,

[91 FR 23807]

and the role of loans in permitting students with limited financial means to complete required training. But those are not factors that Congress directed the Department to consider when classifying degrees as professional degrees or graduate degrees, and, as such, the Department cannot consider these programs to be included in the definition of professional degree.

> [footnote 40] See, e.g., Univ. of DC, Nutrition and Dietetics—MS, https://www.udc.edu/causes/academics/nutrition-dietetics/ms-in-nutrition-and-dietetics (last accessed Apr. 16, 2026); Univ. of Tenn. Knoxville, Clinical Nutrition & Dietetics, https:// cehhs.utk.edu/nutrition/graduate-programs/ms-in-nutrition/clinical- nutrition/ #:~:text=The%20Master%20of%20Science%20in,features%20make%20our%20pro gram%20novel: (last accessed Apr. 16, 2026).

Changes: None.

End of the section. The next heading in the preamble is "Speech-Language Pathology (SLP) and Audiology (AuD)", at 91 FR 23807.

Appendix E. Status as of release

Every row of Table E1 records what a named source said on the date beside it. A row that records nothing found names the source searched and the query, not only the conclusion. No row states what any court or agency will do.

Table E1. The currency check, as read again on September 29, 2026. Each row carries its own check date.

What was checked	What the source showed	Source, with its own currency where it prints one	Date of check
The stay	In force. The order provides that it remains in effect until further order of the court, and no later order modifying, dissolving or replacing it is recorded	Order of June 24, 2026, ECF No. 45, at 3; docket of No. 1:26-cv-01780 (D.D.C.), which prints its own last update as September 4, 2026	September 29, 2026
Further filings in the consolidated cases	Ten entries dated after the order, from June 29 to September 4, 2026, the last a notice whose document was not retrieved	Docket of No. 1:26-cv-01780 (D.D.C.); the docket of No. 1:26-cv-01941, last updated July 1, 2026, carries nothing after the order	September 29, 2026
Dates set for further proceedings	Administrative record September 4, 2026; plaintiffs' summary judgment motions October 2, 2026; cross-motions November 6, 2026; replies November 20 and December 4, 2026	Paperless minute order of July 20, 2026, as printed on the docket of No. 1:26-cv-01780	September 29, 2026
An appeal	None found. Four searches: court dockets for each case name; the Court of Appeals for the District of Columbia Circuit for cases naming the Secretary filed after June 24, 2026; and filings since that date for a notice of appeal naming the lead plaintiffs. No entry on any of the five dockets read is a notice of appeal	CourtListener docket and filing searches, all four archived with their queries	September 29, 2026
The three other cases	District of Maryland: scheduling order of July 28, 2026; the plaintiff states' motion for summary judgment, August 26, 2026; the federal defendants' motion to dismiss for lack of jurisdiction and for summary judgment, September 25, 2026; no ruling on a preliminary injunction recorded. District of Massachusetts: preliminary injunction and stay denied without prejudice August 10, 2026, summary judgment briefing schedule allowed August 17, 2026, and a summary judgment filing with a memorandum in support and six declarations entered September 16, 2026. District of Columbia, the case filed August 11, 2026: scheduling order of August 31, 2026 and a notice of September 4, 2026	Dockets of Nos. 1:26-cv-01957 (D. Md.), 1:26-cv-12443 (D. Mass.) and 1:26-cv-02833 (D.D.C.), printing their own last updates as September 26, September 18 and September 15, 2026	September 29, 2026

What was checked	What the source showed	Source, with its own currency where it prints one	Date of check
A superseding announcement or list	None found. Of 6,925 electronic announcements listed, forty-four carry a posted date of June 25, 2026 or later, and exactly one of those concerns professional degree programs: the announcement already in force	Federal Student Aid's own sitemap, the on-site index being rendered by script; corroborated the same day against the on-site listing, read in a browser	September 29, 2026
The version of the interim list in force	Electronic Announcement GENERAL-26-42, posted June 29, 2026, last modified July 10, 2026, unchanged. Twenty-nine program classification codes on the list of programs treated as granting professional degrees and twenty-five on the list of programs not so treated, both counted by script from the retrieved page. The announcement describes the designations as interim	Federal Student Aid, Electronic Announcement GENERAL-26-42; the page's bytes vary per request, so the archived copy is identified by the hash of its extracted text	September 29, 2026
The address of the earlier version	The address the announcement occupied before the update of July 10, 2026, returns a permanent redirect to the current address	Federal Student Aid	September 29, 2026
The regulatory definition as codified	Section 685.102 of title 34 still defines a professional student, printing the four elements of paragraph (i) and the eleven fields of paragraph (ii)(A). The word supervision does not appear in the codified section. What the order did to the operation of the definition is at 9.2 and is not restated here	eCFR, which reports title 34 as up to date as of September 25, 2026 and last amended on August 31, 2026	September 29, 2026
The amendment of August 31, 2026	Not a change to the definition. It comes from the Workforce Pell final rule of July 1, 2026, whose sole instruction touching this section adds two defined terms to paragraph (a)(1); no instruction in that rule reaches the professional student definition	Federal Register document 2026-13286, Docket ID ED-2026-OPE-0100, amendatory instruction 13	September 29, 2026
A later rulemaking step	None published. Two documents under the docket of the final rule, the proposed rule of January 30, 2026 and the final rule of May 1, 2026, and the same two under the rule's regulation identifier	Federal Register API, searched by docket identifier and by regulation identifier	September 29, 2026
Agency documents in the rulemaking docket	Six, the most recent posted May 1, 2026; none since the order	regulations.gov, docket ED-2025-OPE-0944	September 29, 2026
The classification edition read	CIP 2020, the edition the site presents as current, with 2010 offered as an earlier year	National Center for Education Statistics, Classification of Instructional Programs	September 29, 2026

The dockets are read from a copy of the federal courts' filing system that lags it, and each docket's own last-updated time is given above so that a reader can see how far forward each row reaches. Documents held behind the filing-fee system were not retrieved; where such an entry appears above, the description is the docket's own.

Every row of Table E1 was first checked on September 16, 2026 and read again on September 29, 2026; the table gives what each source showed on the second date. Between the two checks the District of Maryland and District of Massachusetts dockets recorded summary judgment filings, Federal Student Aid's index listed five more announcements, none of them about professional degree programs, and the Code's currency date moved forward. No row's finding about the stay, an appeal, the interim list, the definition or the rulemaking changed.

Appendix F. Detail moved from the main text

This appendix holds, unchanged, four subsections the main text points to.

1.4 How to read the citations

Every document is cited by its issuing body, its number and its date, and every quotation carries its page or paragraph locator. Federal Register material is cited by volume and page in the form used by the Federal Register itself, so that 91 FR 23805 means volume 91, page 23805. A range is given as 91 FR 23805 to 23807. Where a quotation sits on a single page, that page is the locator; where it runs across a page break, both pages are given. Every page locator in this report was confirmed against the paginated Federal Register copy of that page, obtained from the Government Publishing Office, and not against the page markers in the plain-text edition alone. The two disagree in one respect that matters for counting: the plain-text edition carries a marker for the part-title page at 91 FR 23767, which lies outside the document's own page range of 23768 to 23901, so nothing in this report is cited to that page. Documents that are not paginated in the Federal Register are cited by their issuing body, their own identifier and their date, with a paragraph or section locator where the document carries one. Every archived copy is identified in the deposit by its SHA-256 hash (one Federal Student Aid page, whose bytes differ between requests, by the hash of its text, in a file beside it), recorded in the

document register at Appendix A with the source address and the retrieval date and time where they were logged, so a reader who retrieves the same document can confirm that the copy read here is the copy they hold. For the documents fetched through the regulations.gov programming interface, the address in the register is the interface's and the document's identifier is in the file name.

Research questions and hypotheses. The report asks four documentary questions. First, what did the Department propose, and what test did it say it was applying? Second, who is recorded as asking for what, in the docket and in the bodies' own published statements? Third, what did the Department answer about dietetics, and about each comparable profession? Fourth, what did the court do, and what does the interim list say? The report tests no hypothesis: it reproduces what the record says, and section 10 sets out what the record cannot show.

7.4 The fields on the enumerated list

The definition of professional degree that the statute incorporates, at 34 CFR 668.2 as in effect on the date of enactment, lists ten fields: pharmacy, dentistry, veterinary medicine, chiropractic, law, medicine, optometry, osteopathic medicine, podiatry and theology. The regulatory text adopted by this rule, in the amendment to 34 CFR 685.102 at 91 FR 23882, lists eleven. It prints them as "Pharmacy (Pharm.D.), Dentistry (D.D.S. or D.M.D.), Veterinary Medicine (D.V.M.), Chiropractic (DC or DCM.), Law (L.L.B. or J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., or M.H.L.), and Clinical Psychology (Psy.D. or Ph.D.)."

The field on the adopted list that is not on the incorporated one is clinical psychology. It was not added between the proposed rule and the final rule: the proposed rule of January 30, 2026, proposed the same eleven fields, ending "and Clinical Psychology (Psy.D. or Ph.D.)" (91 FR 4260 to 4261).

The final rule states its basis for that field in the Department's own words. On the operative test, it states that doctoral-level clinical psychology "satisfies each element of the incorporated framework", the doctorate being explicitly required for licensure in every State, requiring skill beyond a bachelor's degree, and a licence being required to practise in every State (91 FR 23782). On the contextual elements, it states that the degree "shares common characteristics with the other degrees included in the illustrative list", is at the doctoral level, and that its holders "are not required to work under the supervision of another professional in a different profession" as a condition of licensure (91 FR 23782 to 23783). On how the determination was reached, it states that the proposed rule explained "how, during negotiated rulemaking, the Committee was able to determine that the doctorate in clinical psychology met all of the criteria in the definition of professional degree in § 668.2 and was substantially similar to the other professional degrees in the definition" (91 FR 23785). Answering comments on the enumerated list, it states that "even though it is not explicitly referenced on the list, clinical psychology meets the operative test and satisfies the contextual elements of professional degree" (91 FR 23791).

On the ten fields already on the list, the Department states that it is retaining them and that "The statute explicitly includes such degrees in the definition and therefore the Department is foreclosed, by statute, from removing them." (91 FR 23791). It states the same in answer to comments urging that chiropractic and theology be removed, and it states that it treats psychiatry as falling within medicine or osteopathic medicine rather than as a separate degree category.

Two statements about the scope of the list bear on every row of Table 6. The Department states that "Although the commenters are correct that the list of degrees in § 668.2 is non-exhaustive, the professional degrees in paragraph (2) of the definition of professional student is exhaustive" (91 FR 23785, as printed). It also states that additions remain possible, "so long as the operative definition and context allow, additional degrees may be added to the list of professional degrees through future rulemaking" (91 FR 23785).

7.5 What the Department said about the scope of the classification

Answering commenters who argued that the term would be read outside federal student aid, the Department states, at 91 FR 23784: "The Department acknowledges these comments but clarifies that the professional student designation is used solely for purposes of administering title IV loan limit provisions. It is not intended to provide, nor does it represent, a normative judgment regarding the value of these programs."

It says the same of the two definitions together, at 91 FR 23781: "These definitions serve a loan-administration function: they identify borrower categories for solely for [sic] the purposes of obtaining the higher loan limits for Direct Loan purposes. They do not express a value judgment about the importance of any occupation or field."

Every row of Table 6 should be read against those two sentences. A field that appears in the table as declined is a field the Department placed on one side of a borrowing limit, on a stated ground, on a stated date. It is not a field the Department ranked.

9.5 What has happened since

Every statement in this section was checked on September 16, 2026 and again on September 29, 2026, and Appendix E gives what each source showed on the later date.

The order provides that it "shall remain in effect until further order of the Court" (order, ECF No. 45, at 3). The docket of the lead case records no later order modifying, dissolving or replacing the stay. It does record ten entries dated after June 24, 2026: the Department's notice of its action of June 29, 2026 (ECF No. 47) and its notice of updated action of July 10, 2026 (ECF No. 50); joint motions for more time on July 2 and 9, 2026 (ECF Nos. 48 and 49); a joint status report and proposed scheduling order on July 16, 2026 (ECF No. 51); an unopposed motion to amend the complaint on July 30, 2026 (ECF No. 52); the amended and supplemental complaint of August 3, 2026 (ECF No. 53); summonses returned executed on September 3, 2026 (ECF Nos. 54 and 55); and a notice on September 4, 2026 (ECF No. 56). The documents at entries 54, 55 and 56 are held behind the federal courts' filing-fee system and were not retrieved, so what is said about them is the docket's own description of the entry.

The amended and supplemental complaint of August 3, 2026, adds three counts against the interim list itself, which it calls the Guidance: that it is contrary to law, that it does not comply with the master calendar provision, and that it is arbitrary and capricious. It asks the court to declare that the definition "and its subsequent Guidance violate the APA" (ECF No. 53, at 28 to 31). The words dietetics, dietitian and nutrition do not appear in it (Appendix B row D10-07).

By a paperless minute order of July 20, 2026, the court issued a scheduling order on the parties' joint status report. As the docket prints it, that order set these dates: supplemental or amended complaints by July 30, 2026; production of the administrative record for the final rule by September 4, 2026; plaintiffs' motions for summary judgment by October 2, 2026; defendants' cross-motions by November 6, 2026; plaintiffs' reply by November 20, 2026; and defendants' reply by December 4, 2026. The order also records that, as the parties had agreed, the defendants may defer responding to the complaints until the court has ruled. Those are the dates an order sets. Four of them fall after this report is released, and the report says nothing about what will be filed or decided on any of them. The scheduling order set September 4, 2026, for production of the administrative record and the docket records a notice filed that day; because that document was not retrieved, this report does not say that the one is the other.

The docket of the second case carries nothing after June 24, 2026 and its page records that it was last updated on July 1, 2026. The two cases were consolidated on June 5, 2026, with everything directed to be filed in the lead case, so the absence of later entries there is what consolidation produces.

No appeal was found. Four searches were run on September 16, 2026 and run again on September 29, 2026, and each run is archived: a search of court dockets for the lead case name, which returned only the district court case; the same for the second case, with the same result; a search of the Court of Appeals for the District of Columbia Circuit for cases naming the Secretary filed after June 24, 2026, which returned one unrelated case on the first date and two on the second; and a search of filings since June 24, 2026, for a notice of appeal naming the lead plaintiffs, which returned five filings on the first date and nine on the second, none of them in these cases. The data record holds four of the eight outputs in full, identifies two by their address and SHA-256 alone, and holds two as reduced files that keep each hit's court, docket number, case name and the date the case was filed. No entry on any of the five dockets read is a notice of appeal. That is what was searched and what was not found on those dates. It is not a statement that no appeal exists, and it says nothing about anyone's reasons.

The interim list has not been superseded. Federal Student Aid's announcement was retrieved again on September 16 and 29, 2026 and still carries the identifier GENERAL-26-42, the posted date of June 29, 2026 and a last-modified date of July 10, 2026, unchanged; its two lists still carry twenty-nine and twenty-five program classification codes. Because the announcements index on the site is rendered by script and returns nothing to a plain request, the index was read from Federal Student Aid's own sitemap, which on September 29, 2026, listed 6,925 electronic announcements. Forty-four carry a posted date of June 25, 2026 or later, and of those exactly one concerns professional degree programs: the announcement already described. No superseding or replacing announcement was found by that index on either date; nor, on September 16, 2026, in archived captures of the same path, or, on September 29, 2026, in the on-site listing read in a browser.

The definition remains in the Code of Federal Regulations as the final rule published it. Read on September 29, 2026, with title 34 reported as up to date as of September 25, 2026, section 685.102 still defines a professional student and still prints the four elements of paragraph (i) and the eleven fields of paragraph (ii)(A). The word supervision does not appear anywhere in the codified section, which is consistent with the order's account of that requirement as one found in the preamble rather than in the regulation. What the order did to the operation of the definition is set out at 9.2 in the order's own words; this paragraph is about the text the Code printed on the date it was read, and the two are not merged. The Code records the section as amended on August 31, 2026, and that amendment belongs to a separate rulemaking: the Workforce Pell final rule of July 1, 2026, whose only instruction touching this section adds two defined terms to paragraph (a)(1), and which carries no instruction reaching the professional student definition.

No further rulemaking step has been published. As at September 29, 2026, the Federal Register holds two documents under the docket of the final rule, the proposed rule of January 30, 2026 and the final rule of May 1, 2026, and the same two under the rule's regulation identifier. The rulemaking docket holds six agency documents, the most recent posted on May 1, 2026.

In the three other cases, as their dockets stood when they were read on September 29, 2026: the District of Maryland case records a scheduling order of July 28, 2026, the plaintiff states' motion for summary judgment of August 26, 2026 and the federal defendants' motion to dismiss for lack of jurisdiction and for summary judgment of September 25, 2026, and no ruling on a preliminary injunction; the District of Massachusetts case records a memorandum and order of August 10, 2026, denying a preliminary injunction and a stay without prejudice, a summary judgment briefing schedule allowed on August 17, 2026, and entries of September 16, 2026, that the docket describes as a summary judgment filing, a memorandum in support and six declarations; and the later District of Columbia case, filed on August 11, 2026, records a scheduling order of August 31, 2026 and a notice of September 4, 2026, whose exhibits the docket describes as an index and a certification of the administrative record.

Report 8

Same grid, different rung: dietitian and physiotherapist pay inside twelve public pay instruments and the US federal schedule

The Dietetics Workforce Reports, Report 8, version 1.1 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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In brief

What it asks. When one public pay agreement sets both dietitians' and physiotherapists' pay, how does it rank them, and how does the Veterans Affairs schedule compare?

What it finds. In most of the non-US public pay agreements read, dietitians are paid at or near physiotherapist rates. The Veterans Affairs schedule, the one national US schedule examined, places dietitians one grade lower, at 83.4 percent of the physical therapist at every step. Why is not tested.

What it adds. No study was found, in the search recorded in section 2, that compares two allied health professions inside the same pay agreement across countries.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: the text was read by AI review agents through several separate lenses for statistics, sources, consistency and disclosure, each finding was then triaged by a skeptic, and the contested figures were re-derived from the archived pay instruments. Every correction that review classed as blocking or major was confirmed at the issuing instrument itself before it was written in, and three of the review's own statements about instruments did not hold when they were checked and were not applied as drafted. Several figures rest on a single reading rather than two; Appendix A names them and sets out what the checking could not reach. A validity gate of 1,409 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

What this report asks

This report asks a documentary question: where one public pay instrument, the agreement, award or schedule that sets public employees' pay rates, sets scheduled rates for both dietitians and physiotherapists, where does it place them relative to each other, and how does the federal General Schedule, the one national American instrument examined that does the same, compare? It reads twelve public pay instruments in the United Kingdom, Ireland, Australia, New Zealand and Canada, ten of which carry both professions, together with the General Schedule as the Department of Veterans Affairs applies it. It reports the dietitian scale as a percentage of the physiotherapist scale at each profession's own classification and a matched step, at a named column and a named effective date. State civil-service plans, which also carry both professions in places, were not examined for this version.

It does not explain the American pay difference, and no sentence here should be read as doing so. The American open-market figure is a survey average rather than a scheduled rate, entry credentials differ across the countries compared, and the set of instruments is a convenience set with no sampling frame and no population behind it. Four possible explanations of the alignment, called accounts here, are set out in section 7; none of them is tested here, and section 8 says why the cases available cannot support a test. Nothing in this report is an estimate.

Key findings

- **Outside the United States, one instrument usually pays the two professions the same.** Ten of the twelve instruments read carry both professions, and seven of those ten put them on one shared ladder, so the dietitian rate is exactly 100 percent of the physiotherapist rate by the document's own design. In the four cases on separate scales, Ontario, Quebec, British Columbia and Alberta's entry grades, the dietitian scale runs between 94.6 and 103.3 percent of the physiotherapist scale at the columns read (Ontario April 1, 2024, adjusted; Quebec April 1, 2025;

British Columbia April 1, 2025; Alberta April 1, 2023). The same Ontario document prints 90.2 percent at five years on its 2021 and 2022 adjusted columns, so no figure here should be quoted without its column and date.

- **The Veterans Affairs schedule places dietitians one grade below physical therapists.** The Department sets the full performance level, the grade a fully qualified practitioner is expected to reach, at grade 11 for a dietitian and grade 12 for a physical therapist: 83.4 percent at every step of the 2026 General Schedule base table. In realised mean salary with locality pay included, Veterans Affairs dietitians stood at 79.2 percent of Veterans Affairs physical therapists in September 2024. It is the one national US instrument examined; state civil-service plans were not examined.
- **That grade difference was made in 2018, by moving physical therapy up.** The transmittal of February 7, 2018, changes the physical therapist's full performance grade from GS-11 to GS-12 on the stated ground that physical therapists can treat patients without a physician's referral. As a separate change, it makes the Doctor of Physical Therapy the minimum education requirement. The dietitian standard of October 14, 2022, issued under bachelor's entry, leaves dietetics at grade 11.
- **The width of a rung sets what a one-rung difference is worth, and nothing here explains the difference.** Quebec's adjacent rangements are 1.45 to 5.03 percent apart and Alberta's Pay Grades 5 and 5a 1.35 to 1.75 percent, against 19.9 percent from grade 11 to grade 12 on the 2026 General Schedule base table. The open-market survey figure, 73.3 percent in May 2025, is a different measurement. None of the four accounts in section 7 is tested.

Plain-language summary

In the federal wage survey for May 2025, dietitians in the United States were paid less than physical therapists and four of five other allied health professions compared here. This report asks something narrower: where one public pay document sets rates for both dietitians and physiotherapists (physical therapists in the United States), how does it pay them relative to each other?

Twelve public pay documents from five countries were read, with the federal schedule the Department of Veterans Affairs uses. Ten carry both professions, and seven of those ten pay them the same by design. In four Canadian cases the dietitian rate runs between 94.6 and 103.3 percent of the physiotherapist rate at the dates read. The Veterans Affairs schedule puts a dietitian one grade below a physical therapist: 83.4 percent at every step. State pay plans, which also cover both professions in places, were not examined. The report describes where the difference appears; it does not explain it.

The sentence to repeat: where a public pay document outside the United States carries both professions, it pays them the same or nearly so, and the one national US schedule examined pays dietitians one grade lower.

Abstract

Background. American dietitians are paid less than physical therapists and most peer allied health professions (federal wage survey, May 2025), and why is unsettled. No study was found, in the search recorded in section 2, that compares two allied health professions inside one pay instrument across countries.

Objective. To describe where public pay instruments that set rates for both dietitians and physiotherapists place them relative to each other, and how the General Schedule compares.

Methods. A documentary analysis of twelve public pay instruments in five countries (the United Kingdom, Ireland, Australia, New Zealand and Canada) and of the General Schedule as Veterans Affairs applies it, expressing the dietitian scale as a percentage of the physiotherapist scale at each profession's own classification and a matched step, at a named column and effective date. The instruments are a convenience set; state civil-service plans were not examined.

Results. Ten of the twelve instruments carry both professions; Victoria's two each carry one. Seven of the ten place both on one shared ladder, at 100 percent by construction. On separate scales, in Ontario, Quebec and British Columbia and at Alberta's entry grades, the dietitian scale runs from 94.6 to 103.3 percent at the columns read (Ontario April 1, 2024, adjusted; Quebec April 1, 2025; British Columbia April 1, 2025; Alberta April 1, 2023). The General Schedule places the two one grade apart at their full performance levels: 83.4 percent at every step of the 2026 base table.

Conclusions. In the instruments read outside the United States the two professions sit at or near parity, so the American market gap does not appear there; the one national US schedule examined pays dietitians one grade lower. Credentials differ across countries and the market figure is a survey average, so the report tests no explanation.

Keywords: dietetics workforce; allied health pay; public pay instruments; collective agreements; job classification; pay equity; comparative health workforce policy

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of one of the two professions whose pay this report compares. He owns Vitae Arete LLC, which publishes this report series and offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for

license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; the findings reported here do not bear on those proposals. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this work (Use of artificial intelligence). Apart from his employment by AdventHealth, his registration with the Commission on Dietetic Registration, which credentials him, and his Academy membership and workgroup seat disclosed above, he has no relationship with any union, employer, commission, tribunal or expert body named in this report. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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1. Introduction

American dietitians earn substantially less than the peer professions with which they are grouped: on the May 2025 Occupational Employment and Wage Statistics, 73.3 percent of what physical therapists earn,[1] and a companion analysis traces that divergence to the mid-1980s (Fee, Nutrition Today, in press). This report asks a narrower question that documents can answer: where one public pay instrument sets rates for both professions, where does it place them relative to each other, and how does the federal General Schedule, the one national American instrument examined that does the same, compare? No study was found, in the search recorded in section 2, that makes that comparison inside one instrument across countries.

Whether the American gap reflects the professions, the way the United States configures them (entry credentials and scope of practice among them), or American wage setting is unsettled. If dietetics is paid below physiotherapy wherever both exist, the explanation lies in the work, the credential, or the labor it substitutes for; if the gap appears in the United States and not elsewhere, something in the American arrangement, or in the American configuration of the two professions, is associated with it.

The report cannot say whether the American market gap is caused by the absence of such instruments, because the American market figure is a survey average and entry credentials differ across countries. It compares the two professions inside twelve pay instruments across five countries, and inside the General Schedule, with the national survey figure reported separately; state civil-service plans, which also carry both professions in places, were not examined for this version. It describes a small, non random set of systems. It does not estimate a relationship, and sections 7 and 8 set out why the cases available cannot support one.

Research questions and hypotheses. The report asks two questions. First, where one public pay instrument sets scheduled rates for both dietitians and physiotherapists, where does it place them relative to each other? Second, how does the Veterans Affairs schedule compare? It frames one expectation: if the American gap reflected the professions themselves, it would appear in the other instruments too. The report describes whether it does; why it does is left untested.

2. Background

No study was found that measures the pay of one allied health profession as a proportion of another's inside a single pay instrument and then repeats that comparison across national systems. A search of 1,771 OpenAlex records and ten PubMed queries, with citation-graph expansion, returned nothing that performs the operation this report performs. The nearest work compares earnings across allied health occupations inside a single dataset, with profession as a covariate,[2,3] and a recent scoping review of job evaluation does not locate the design either.[4] The nearest published work in logic is Ratliff and colleagues' series of registered nurse wages relative to other health care occupations, single-country and on realised wages rather than instruments;[39] within dietetics, Loushine and Vaden compared entry-level dietitian salaries with other health professions in 1985, on survey data and in one market.[40]

Choi and colleagues model Agenda for Change band placement as an outcome, against ethnicity and migration status, establishing that where a group lands inside a national instrument is measurable and contestable.[5] The equal-value scholarship following Enderby addresses the legal status of the pay-setting structure whose outputs this report reads, and is taken up in section 7.[6,7] And Gupta, Singh and Balcom show by decomposition that gender wage gaps persist across thirteen professions after statutory pay equity, so a regime's presence does not by itself settle relative standing.[8]

One further absence bears on method: the only recurring dietitian compensation survey found in the peer-reviewed record, for any country, is the Academy of Nutrition and Dietetics' own.[9] No national dietetic association outside the United States was found to publish a peer-reviewed equivalent. Cross-national comparison built on dietetic association salary surveys therefore has no symmetric source in the record searched, which is a reason to read instruments instead.

3. Methods

The comparison is within-system relative position: the dietitian scale expressed as a percentage of the physiotherapist scale, at equivalent grade and step, inside the same pay instrument. An instrument that sets rates for both professions is a spanning instrument, and that is the term used for it here. The unit is each profession's own classification at a matched step (level I, salary structure P1, echelon, years of service), read inside one instrument; an echelon is a step on a scale. In every separate-scales case the two classifications sit on different grades, schedules or rangements of a common structure, a rangement being the job-evaluation rank the Quebec nomenclature assigns to a job title, and the width of those rungs differs by instrument. Two constraints follow.

No currency conversion and no purchasing power parity adjustment. Cross-national wage comparison ordinarily converts currencies and adjusts for price levels, and both steps import assumptions large enough to dominate the result; a ratio of two scales inside one instrument needs neither. All money figures are in the currency of the issuing instrument.

Both figures must come from the same instrument at the same effective date. Pay instruments are renegotiated on different cycles, and comparing scales settled in different bargaining rounds measures the timing of settlements rather than relative valuation. Nine instruments print multiple dated columns or rows in which positional rather than header matching would have produced a wrong ratio. In Ireland, reading the dietitian's June 1, 2026, row against the physiotherapist's February 1, 2026, row yields 101.00 percent where the correct figure is parity.

New Zealand before its 2023 settlement is a second, more consequential worked example of the same rule; Appendix C sets it out.

Physiotherapy is the comparator for two reasons. The first is substantive: in every system examined except Victoria the instruments themselves group the two professions together. Agenda for Change treats both as allied health professionals, the Australian award, as consolidated to July 1, 2026, places both in one Health Professional classification, and the United States Office of Personnel Management assigns both to the 0600 Medical and Healthcare occupational group under one job family standard.[10] The pairing is the instruments' own, not the author's. The second is availability: physiotherapy is the profession most consistently carried alongside dietetics.

There was no sampling frame. Instruments were sought in English-language health systems with consolidated public sector pay structures and included if one document carried rates for both professions, or carried one and excluded the other. Scotland, Wales and Northern Ireland apply Agenda for Change with devolved circulars and were not separately examined; Western Australia, South Australia and Tasmania were sought and not retrieved; no continental European, Nordic or East Asian system was searched. All figures are base scales, excluding allowances, premiums and locality adjustments. The meaningful denominator is the number of instruments, twelve, not the count of ratios. The twelve instruments are the ten in Table 1 outside the United States (Alberta's one agreement supplies two rows) and Victoria's two agreements in section 5. The Veterans Affairs General Schedule is treated separately, and the national survey figure is not an instrument. The study used only published pay instruments and involved no human participants, so institutional review board review was not required.

4. Results

Table 1 gives every system and its source;[11,12,13,14,15,16,17,18,19,20,21,22] every scheduled ratio computed here is plotted by instrument (Figure 1), and Figure 2 sorts the instruments by how each treats the two professions. Seven of the instruments in Table 1 put both professions on one shared ladder. Three others, in Quebec, Ontario and British Columbia, carry them on separate scales; with Alberta's entry grades, which sit in the same agreement as its shared level II line, that is four separate-scale cases. Every observation from an instrument whose rungs are a few percent wide falls between 94.64 and 103.27 percent at the columns read (Ontario April 1, 2024, adjusted; Quebec April 1, 2025; British Columbia April 1, 2025; Alberta April 1, 2023), a spread of 8.6 percentage points, a band this report gives elsewhere as 94.6 to 103.3; the General Schedule's two, one grade of 19.9 percent apart, fall outside it.

Table 1. Dietitian scheduled rate as a percentage of physiotherapist, at each profession's own classification and matched step within one instrument; the United States row compares each profession's full performance level.

System	How the instrument treats the two	Rung width	Observations	Range (%)
United Kingdom (Agenda for Change)	one shared grid	same grade	9 bands	100.00
Ireland (HSE)	one common scale by policy, separate title codes	same grade	14 points	100.00
Australia (federal award)	one shared grid	same grade	4 levels	100.00
Australia (New South Wales)	one shared grid	same grade	5 levels	100.00
Australia (Queensland)	one shared grid	same grade	8 levels	100.00
New Zealand (post-2023)	one shared grid	same grade	6 steps	100.00
Alberta (level II)	one shared grid	same grade	1	100.00

Alberta (entry)	separate scales	adjacent grades, about 1.5 percent	1	101.49
Quebec	separate scales	adjacent rangements, 1.5 to 5.0 percent	18 echelons	97.11 to 100.55
Ontario	separate scales	separate schedules	6 steps	94.64 to 103.27
British Columbia	separate scales	separate schedules	2 (ends of a 140-cell range)	95.74 to 96.09
United States (General Schedule, VA grades)	spans both, different grades	adjacent grades, 19.9 percent	2 (steps 1 and 10 of 10)	83.43 to 83.44

Observations are the ratios plotted in Figure 1; the General Schedule and British Columbia enter at the ends of their ranges, and five further Irish grades that coincide are not counted. Alberta's one agreement supplies two rows; Victoria's two instruments are compared in section 5, and together these complete the twelve; the United States row is reported separately. The Ontario and British Columbia comparator lines are combined occupational therapy and physiotherapy classifications; Alberta's Pay Grades 5a and 6 are shared grades carrying physiotherapy with other classifications; Quebec's title 1233 is physiotherapy alone. Each range is read at one dated column: United Kingdom April 1, 2026; Ireland June 1, 2026; the Australian federal award as consolidated to July 1, 2026; New South Wales the first full pay period on or after July 1, 2025; Queensland September 1, 2025; New Zealand June 1, 2023; Alberta April 1, 2023; Quebec April 1, 2025; Ontario April 1, 2024, on the pay-equity-adjusted schedule; British Columbia the first pay period after April 1, 2025; United States, the 2026 General Schedule base table. The United Kingdom row is the nine numbered Agenda for Change bands, bands 8a to 8d folding into band 8. Alberta's entry row enters as a single observation at step one; across all nine steps of the April 1, 2023, column that ratio runs from 101.35 to 101.75. The Alberta appendix also prints April 1, 2024, 2025, 2026 and 2027 columns; at April 1, 2025, the entry ratio is 101.48, CAD 41.88 against CAD 41.27, and Dietitian II and Physiotherapist II remain on one Pay Grade 6 line, so the row is unchanged in substance at the later column.

Where a document puts both on one line, parity is exact but weak: the document defines it. The informative cases are the four Canadian instruments, where the professions sit on separate scales free to diverge.

Seven of the rows in Table 1 put both professions on a single shared ladder, and in each the ratio is exactly 100 percent. Under NHS Agenda for Change in England both are allied health professionals on occupation-blind bands: at April 1, 2026, band 5 runs from GBP 32,073, band 6 from GBP 39,959 and band 7 from GBP 49,387, and the figure does not vary by profession, because the band and not the job title is what pay attaches to.[12] The Australian federal Health Professionals and Support Services Award as consolidated to July 1, 2026, puts both inside one Health Professional classification with rates attaching to level and pay point only, and Schedule B of the award, its list of common health professionals, names the dietitian and the physiotherapist in the same list.[13] The New South Wales award names them in one Schedule A classification list at the first full pay period on or after July 1, 2025,[14] and Queensland's health practitioner stream runs one HP1 to HP8 ladder with no profession-specific rates, payable from September 1, 2025.[15] New Zealand's 2023 settlement translated both onto a single national scale effective June 1, 2023.[16] Alberta groups Dietitian II and Physiotherapist II on one Pay Grade 6 line.[17] Ireland, treated below, belongs with these.

Parity on a shared grid is definitional, and a reader who objects that a shared pay scale necessarily produces shared pay is right. That is why these rows appear here rather than at the head of the report. What they record is narrower: instruments issued in five countries and negotiated by different parties, though within one Anglophone public-sector lineage (section 8), put these two professions on the same rung rather than on adjacent ones. Whether that reflects a judgment about relative value or an administrative grouping of allied health work is not established by the instruments themselves, and two of them key the entry step to the length of the qualification rather than to the profession, which section 8 takes up.

Ireland shows what a policy of common scales looks like when it is kept. The Health Service Executive consolidated scales effective June 1, 2026, print dietitian and physiotherapist under separate title codes, 3389 and 314X, five pages apart, and every figure between them is identical: all fourteen points of the staff grade from EUR 45,514 to EUR 65,068, all nine of the Senior grade from EUR 65,197 to EUR 76,767, and Clinical Specialist, Manager, Manager in Charge III and Candidate Advanced Practice, a trainee advanced-practice grade, besides.[11] The staff-grade scale is printed under seven title codes and the Senior scale under ten, and general increases are applied across all of them under the Public Service Agreement. The two professions sit on one common Health and Social Care Professional scale that the Department of Health established from April 1, 2000, on the recommendation of an expert group that found "significant similarity in terms of entry requirements, the levels of academic and practical training" across chiropody, dietetics, occupational therapy, orthoptics, physiotherapy and speech and language therapy.[23] Ireland therefore belongs with the shared grids, its parity definitional in the same way; what it adds is a stated reason, credential similarity, and a practice maintained when Candidate Advanced Practice was created in 2026 at one scale for four professions.

Quebec is the only case with a time series across a documented intervention, and the intervention is not the one its arithmetic suggests (Figure 3). The ratio computed at each of the nine dated rate columns the instrument prints held at 96.89 percent in the 2019 and 2020 columns, stepped to 98.82 percent in 2021, and holds at that value in every column printed since, through the scheduled 2027 rate.[19] The step of 1.94 points equals, as an arithmetic identity, a 2 percent increase applied to every step of the dietitian scale from March 20, 2021, under an accord of July 29, 2021, that settled pay equity maintenance complaints under article 103.0.1 of the provincial statute.[24] But the accord styles that 2 percent a salary increase, not an equity correctif, which is an equity correction ordered under the statute, and it is paid without interest and offsettable against any correctif later awarded. The correctif proper, a one-rangement upgrade worth 3.28 percent retroactive to December 31, 2010, predates every column in the series and is already embedded in the 2019 and 2020 figures, which are the accord's restated rates rather than the rates then in force. The Commission dismissed the dietitian and the carved-out physiotherapist evaluation complaints on September 28, 2023 and a separate physiotherapist bad-faith complaint on November 7; the series is read after both.[25]

Ontario supplies both endpoints of the band, and not smoothly: the ratio declines by 1.51, 1.28, 1.12 and 1.00 points across the first four steps, then by 3.72 at the last, driven by a 10.18 percent jump in the comparator line, which in Ontario is a combined physiotherapy and occupational therapy classification. British Columbia's Schedule J is likewise a combined occupational therapy and physiotherapy schedule, and Alberta's Pay Grade 5a

carries physiotherapy with occupational therapy and other classifications; of the four separate-scale cases only Quebec's title 1233 schedules physiotherapy alone. Without Ontario's last step, the lowest separate-scale value is British Columbia's 95.7 percent. The Ontario grid used is the schedule inclusive of pay equity adjustments under the central plan, which is the pay equity plan negotiated centrally for the participating hospitals; the same instrument prints the unadjusted schedule beside it. At the April 1, 2023, column the plan raised the dietitian line by 6.31 percent at Start and 4.95 at five years, and the physiotherapist and occupational therapist line by 3.87 and 2.79, after two years, 2021 and 2022, in which the plan had adjusted the comparator's line and not the dietitian's, so that on those columns the adjusted schedule placed the dietitian lower than the unadjusted one, at 90.2 percent at five years; on the unadjusted schedule the dietitian is at 100.8 percent of the comparator at Start and 92.7 at five years, against 103.2 and 94.6 adjusted, a spread of similar width at a lower level.[20] Section 7 returns to this. Table 2 gives the ratio at every column the instrument prints, on both schedules.

Table 2. Ontario: the dietitian rate as a percentage of the occupational therapist and physiotherapist rate, at each of the five dated columns the central agreement prints, on the schedule inclusive of pay equity adjustments and on the unadjusted schedule printed beside it.

Column	Start, adjusted	Start, unadjusted	Five years, adjusted	Five years, unadjusted
April 1, 2021	97.1	100.9	90.2	92.7
April 1, 2022	97.1	100.9	90.2	92.7
April 1, 2023	103.2	100.8	94.6	92.7
September 1, 2023	103.2	100.8	94.6	92.7
April 1, 2024	103.3	100.8	94.6	92.7

Hourly base rates, excluding premiums, computed from the two schedules the agreement prints.[20] The headline band in Table 1 is read at the last of these columns. What the plan did to the ratio, and the male comparators it runs through, are the subject of Report 5 in this series (doi: 10.5281/zenodo.23044624); they are not restated here.

British Columbia is steadier. Under the Health Science Professionals Provincial Agreement, effective the first pay period after April 1, 2025, dietitians are on Wage Schedule G, headed Dietitian and Physics Assistant, and physiotherapists on Wage Schedule J, headed Occupational Therapist and Physiotherapist. At the first year of the P1 salary structure the rates are CAD 41.97 an hour against CAD 43.83, and at the twenty-fifth year CAD 52.40 against CAD 54.53.[18] Each schedule prints twenty salary structures across seven service-year columns, and across all 140 paired cells the ratio stays between 95.74 and 96.09 percent, so the gap in British Columbia is close to a fixed proportion rather than one that opens with seniority.

Alberta is graded differently at different levels, and reporting one level alone would mislead. Under the ratified agreement between the Health Sciences Association of Alberta and Alberta Health Services, at the April 1, 2023, column, Dietitian II and Physiotherapist II sit on one Pay Grade 6 line at CAD 41.12 at step one, identical by construction. At entry the two are separately graded, Dietitian I at Pay Grade 5 and Physiotherapist I at Pay Grade 5a, with the dietitian rate the higher at CAD 39.48 against CAD 38.90. Pay Grade 5a is a shared grade, carrying the occupational therapist, the kinesiologist, the clinical informatician and the clinical telehealth facilitator alongside the physiotherapist. The ladders are also of different heights: a Physiotherapist III is scheduled at Pay Grade 8 with no Dietitian III counterpart, so the physiotherapy scale extends two pay grades above where the dietetics scale stops.[17]

In Ontario and in Quebec the dietitian begins above parity and is overtaken, so what separates the professions inside those two instruments is a slope rather than a level; in British Columbia it is a level, near enough fixed along the grid (Supplementary Figure S1). A dietitian and a physiotherapist hired into the same Quebec facility on the same day begin about half a percentage point apart, and eighteen echelons later the dietitian is 2.9 points below parity, having lost ground at every step in between. Whether that shares a mechanism with the American difference is not established here.

5. Victoria: the professions in separate instruments

One case sits outside the design: the only system in the study where the two professions are paid under different instruments. The dietitian rates read are those of the Medical Scientists, Pharmacists and Psychologists agreement and the physiotherapist rates those of the Allied Health Professionals agreement; paired by printed position, which the report's own same-instrument rule cannot validate, the dietitian runs from 90.51 to 104.70 percent of the physiotherapist at the rates in force on April 1, 2025. Appendix C sets out the reading in full, with Table 3 and the limits of the comparison.

6. The United States

The Department of Veterans Affairs employs both, appointed under hybrid Title 38 authority, which means appointed under the Department's own personnel authority but paid on the General Schedule, and classified on General Schedule occupational series: dietitian in GS-0630, physical therapist in GS-0633.[21] Both sit inside the same classification standard, the Office of Personnel Management's Job Family Standard for the Medical and Healthcare Group, 0600.[10] The General Schedule shares the feature that matters here with Agenda for Change: pay attaches to a grade and a step, not to an occupation. By this report's test, the United States has a spanning instrument.

In its occupations schedule of December 19, 2024, the Department sets the full performance level, which is the grade a fully qualified practitioner is expected to reach, at grade 11 for a dietitian; for a physical therapist it is grade 12, as it is for occupational therapy, speech language pathology and pharmacy. The same schedule places social work at grade 11 alongside dietetics, and psychology at 13. Dietetics is one grade below four comparators and level with a fifth.

A reader will ask whether that grade difference tracks the credential rather than the work, and the documentary record answers narrowly but not emptily. The dietitian full performance level is set by VA Handbook 5005/154, Part II, Appendix G20, transmitted October 14, 2022, which states that "the full performance level for this qualification standard is the GS-11 grade level" and which replaced the standard of September 5, 2014. The changes that transmittal lists for itself are revised assignments and titles, two eliminated GS-13 assignments, new informatics and program-coordinator assignments, the removal of the education substitution at the GS-11 journey level, and a clarification of the Commission on Dietetic Registration requirement. It does not move the full performance level, and it makes no reference to the graduate-degree requirement that took effect on January 1, 2024. Archived captures of September 27, 2024 and July 3, 2025, carry the same journey-level sentence. The physical therapist standard, VA Handbook 5005/99, Part II, Appendix G12, was transmitted February 7, 2018, and its transmittal sheet is explicit about what it did and why: it recognises the Doctor of Physical Therapy degree as the minimum education requirement, it recognises the ability to practise without a referral, and it "[c]hanges the full performance grade level from the GS-11 grade level to GS-12" because physical therapists "are now able to perform as open/direct access allowing patients to be treated without referral from a physician".[41]

So the present one-grade difference was made in 2018, by moving physical therapy up, on the stated ground of direct access; the same transmittal separately made the entry doctorate the minimum education requirement. The dietitian standard that leaves dietetics at grade 11 was issued fourteen months before the dietetics credential changed, under bachelor's entry, and whether it has been revisited since is not established: no later transmittal was found in the captures examined, which is a searched-and-not-found result rather than an established absence. Classification standards are revised on multi-year, agency-initiated cycles, so an unamended standard is weak evidence in both directions. It does not show that the classification was reviewed and upheld, and it does not show that it was overlooked.

The comparison here is at each profession's full performance level, not at a matched grade and step, where the General Schedule returns exactly 100 percent. The unit is the same as elsewhere; what differs is the width of the rung between the two classifications. On the 2026 base table, grade 11 runs from USD 63,795 to USD 82,938 and grade 12 from USD 76,463 to USD 99,404,[22] and the ratio is 83.4 percent at every step, a statement about classification placement on the base schedule only. Locality pay, special salary rates and the Title 38 pay authorities can each apply differently by occupation; none was examined here, and any of them could move the ratio where it is in force. The gap it implies is also a floor. On OPM FedScope for September 2024, the mean salary of Veterans Affairs dietitians, locality pay included, was 79.2 percent of Veterans Affairs physical therapists' (81.8 percent across the federal government); the modal grades were 11 and 12 as classified, but 34 percent of dietitians and 99 percent of physical therapists sat at grade 12 or above, and 12 percent against 38 percent at grade 13 or above. Quebec, one rangement apart on one grid, is the same structure; the difference between 97 and 83 percent is in part the coarseness of the rungs, a few percent per rangement against 19.9 percent from grade 11 to grade 12 on the 2026 base table. Grid granularity is therefore a candidate explanation in its own right, and not only a property of the measurement. Where a structure prints many narrow rungs, a classification decision that moves a profession one rung moves its pay a little: on the April 1, 2025, column of the Quebec nomenclature the standard rangement 22 and rangement 23 scales are 1.45 percent apart at the first echelon and 5.03 percent apart at the eighteenth, the dietitian title sitting 2 percent above the standard rangement 22 scale since the 2021 accord, which is why its printed rate is above parity at the entry echelons, and Alberta's Pay Grades 5 and 5a are 1.35 to 1.75 percent apart across the nine steps of the April 1, 2023, column. Where a structure prints few wide rungs, the same decision moves it a great deal. Nothing here shows which structure is the fairer instrument. What it shows is that the same one-rung judgment is worth very different amounts depending on the grid it is made on.

Outside the federal government, no national instrument coupling the two professions was found. State civil service plans carry both in places, Texas's for one;[28] none was examined for this version of the report. The Bureau of Labor Statistics Occupational Employment and Wage Statistics for May 2025 give 77,570 dietitian and nutritionist jobs at a mean annual wage of USD 77,130 and 267,330 physical therapist jobs at USD 105,280, a ratio of 73.3 percent, or 74.3 percent on medians of USD 76,400 and USD 102,760 (Figure 2).[1] That is a survey average, not a scheduled rate at a matched grade, and not comparable to the figures above. How the survey's universe differs from the credentialed workforce, a check on Canadian realised earnings, and the American Community Survey comparison are in Appendix C.

The market figure is also comparator-sensitive, and no part of this report should rest on the physiotherapy pairing alone. On the same May 2025 release the dietitian and nutritionist mean is 67.1 percent of radiation therapists', 73.3 percent of physical therapists', 76.2 percent of occupational therapists', 78.6 percent of speech-language pathologists', 88.4 percent of respiratory therapists' and 107.4 percent of healthcare social workers'; on medians the same six run 72.5, 74.3, 76.1, 78.1, 92.9 and 112.6 percent.[1] Physiotherapy sits near the low end of that range. That mirrors the federal picture, where dietetics is a grade below physical therapy and level with social work, and it is a reason to read the ordering as a description of particular pairings rather than of the profession's standing in general. Report 4 in this series sets out the coverage and comparability limits of the federal wage estimates for 37 health occupations, among them four of these six comparators (physical therapists, occupational therapists, speech-language pathologists and respiratory therapists); radiation therapists and healthcare social workers are not in its set of 37.

7. Discussion: four accounts of the alignment

Four accounts fit the description. They are better read as links than as rivals: a legal regime determines whether classification must be analytical, classification sets the grid, the grid sets relative position, and entry credentials enter as an input to classification. The design here observes only the last link.

On the institutional account, an instrument covering both professions constrains their relative position, and the operative institution is the bargaining unit or pay body that issues it. Ireland is a common scale adopted by policy and kept for a quarter century; Victoria, where the professions are paid under separate agreements, is consistent with the account but is not a test of it. The United Kingdom adds a date: the Whitley scales that Agenda for Change replaced already carried the two professions' entry and working grades on identical points (graduate and diploma entrants, Senior II, Senior I, Chief III with Superintendent III) in 2002, 2003 and 2004, while their senior structures differed, the dietetic Area Chief grades

sitting above the physiotherapy Superintendent grades and a physiotherapy Area I grade having no dietetic counterpart.[29] Appendix C gives the circulars' figures. The 2004 grid inherited the alignment at the entry and working grades and brought the senior grades, which Whitley had not aligned, onto one structure.

On the credential account, three instruments record it. British Columbia's classification manual states that in determining the salary structure of each profession, "consideration is given to the educational requirements to practice as governed by regulatory colleges";[30] Quebec's nomenclature prints a bachelor's degree beside the dietitian at rangement 22, dated from the December 31, 2010, valuation, and a master's beside the physiotherapist at rangement 23, dated from the April 2, 2019, salary-relativity structure;[19] the physiotherapy master's entered the regulation in 2011, and the union's communication of December 12, 2023, records that the employer excluded it from the 2010 maintenance exercise and would consider it in the 2015 one.[38] Whether the one-rangement gap rests on the credential cannot be read from these documents. Ireland's common scale was adopted on this ground. The credential account is available for the United States as well: physical therapy enters with a clinical doctorate, and dietetics entered with a bachelor's degree and internship until 2024 and a master's since, so the American credential gap is one to two levels against the one level Quebec's nomenclature prints. This design cannot price a credential level. British Columbia's separate schedules put the dietitian about four points below the comparator at both ends of a 140-cell range, while any one-grade placement on the General Schedule reads as 16.6 points on this ratio, whatever produced it, the rung between those two grades being 19.9 percent of the lower one. The British Columbia manual says entry credentials are given consideration but does not print them, and the two professions' entry requirements were searched for in the archived British Columbia documents and not found. The Veterans Affairs standard that set the dietitian at grade 11 is dated October 14, 2022 and predates the master's requirement; whether it has been revisited since is not established.

On the legal regime account, a pay equity statute, rather than the shared instrument itself, produces the alignment. Quebec points this way, though less cleanly than its arithmetic suggests, since the step in its series is a negotiated increase inside a statutory settlement rather than the settlement's equity award, and both professions there are female-predominant classes that the statute compares to male comparators, not to each other. Ontario points this way from the 2023 column onward; on the 2021 and 2022 columns the plan had adjusted only the comparator's line, and the plan compares each female job class with male comparators rather than the two professions with each other (Baker and Fortin[31]). But the account is not general. The Irish instrument contains no equity machinery, though the jurisdiction has equal-value law in statute,[32] and its parity was set by policy, not by complaint. No pay equity statute was found in Alberta's statute catalogue, and its Human Rights Act reaches equal pay for the same or substantially similar work, not for work of equal value.[33] British Columbia's current statute index, 889 entries, contains no pay equity statute either,[34] though a provincial pay equity policy framework of the late 1990s was not examined. In the United States the federal Equal Pay Act reaches equal work, not work of equal value (29 U.S.C. 206(d)(1)); comparable-worth duties exist for some public employers, Minnesota's political subdivisions among them (Minn. Stat. 471.992), and no American instrument examined here was set under one.

The mechanism has also been put to a court. In Enderby v Frenchay Health Authority, a speech therapist's claim against a pharmacist and a clinical psychologist in the same health service had been dismissed below because the differences resulted from "structures specific to each profession, and in particular the separate collective bargaining arrangements"; the European Court of Justice, on the Court of Appeal's assumption that the jobs were of equal value, held that rates "arrived at by collective bargaining processes which, although carried out by the same parties, are distinct, and, taken separately, have in themselves no discriminatory effect, is not sufficient objective justification for the difference in pay."[35] The same judgment held that the state of the employment market, where an employer raises pay to attract candidates, may justify part of a difference to the extent the national court can quantify it. Both rulings arise only where jobs of equal value are held predominantly by one sex, which this report does not examine. The NHS handbook records the judgment and adds: "This, together with the need to simplify the existing pay systems, influenced the decision to introduce a new job evaluation scheme."[36] The scholarship treats it as a landmark still contested.[6,7] In that setting a court declined to accept separate bargaining alone as a justification. The Whitley circulars read above date from 2002 to 2004, after the judgment, so they show the alignment in place before Agenda for Change but cannot show whether the judgment contributed to it.

On a market account, relative pay reflects relative demand, and an administered scale converts a shortage into vacancies rather than into a premium. This design cannot see that conversion: none of the instruments records vacancy or agency spend by profession, and the report's two market figures, one American and one Canadian (Appendix C3), are survey earnings, which record pay rather than vacancies.

What would separate the accounts generally is variation over time within a system, when one of them changes and the others do not. Quebec, Ontario and Ireland's 2000 consolidation each supply one such moment; a study built on them would have an estimand, which this study does not.

8. Limitations

These are scales, not earnings. Two professions on identical scales earn differently if grade attainment, hours or ladder length differ, and the ladders do differ: Alberta schedules a Physiotherapist III at Pay Grade 8 with no dietitian equivalent, so the physiotherapy ladder tops out two pay grades higher, and the dietitian's top step is 94.8 percent of the physiotherapist's at the April 1, 2023, column; Victoria's dietitian Grade 1 runs seven points to the physiotherapist's five. Grade attainment distributions were not obtained in any system except the United States (section 6), and matched-step ratios do not measure how each profession is distributed across grades, which is where a "different rung" would appear in practice. The comparator is a combined occupational therapy and physiotherapy classification in Ontario and British Columbia and a shared pay grade in Alberta. The instruments are one Anglophone public-sector lineage, not independent draws, and the share of any country's dietitians they cover is not established; in the United States the Veterans Affairs schedule covered about 2,900 GS-graded dietitians in September 2024 (OPM FedScope) against 77,570 dietitian and nutritionist jobs in the May 2025 survey, about four percent.

Every figure in the band is a scheduled rate read from a named column of a dated schedule, and the band moves with the columns chosen. The range of 94.6 to 103.3 percent is read at Ontario April 1, 2024, on the pay-equity-adjusted schedule, Quebec April 1, 2025, British Columbia April 1, 2025 and Alberta April 1, 2023. The same Ontario instrument prints 90.2 percent at five years on its 2021 and 2022 adjusted columns and 92.7 percent at the

same step on the unadjusted schedule it prints alongside (Table 2), so a reader who takes a different column out of the same document gets a different floor. No figure in this report should be quoted without the column and the effective date it was read at.

There was no sampling frame, and there is no population these instruments were drawn from. They were sought in English-language health systems with consolidated public-sector pay structures and kept where one document carried both professions. Scotland, Wales and Northern Ireland apply Agenda for Change under devolved circulars and were not separately examined; Western Australia, South Australia and Tasmania were sought and not retrieved; no continental European, Nordic or East Asian system was searched. Nothing here supports a statement about pay instruments in general, an average across systems, or any likelihood that a further instrument would fall inside the band. Counting how many of the twelve sit at parity measures which documents were retrievable in English in September 2026 as much as it measures anything about the professions.

The four accounts in section 7 are links in one chain rather than rivals, and this design observes only the last of them, the position the grid prints. It does not separate them, and none of the three dated moments it can see does the separating either. Quebec's step is a negotiated increase inside a statute that compares both classes to male comparators rather than to each other. Ontario's plan does the same, and moved the relativity down on two columns before it moved it up. Ireland's common scale was adopted by policy on credential grounds, so institution and credential changed together. The market account has no observation at all in this design: none of the instruments records vacancies or agency spend by profession, and the report's two market figures, one American and one Canadian (Appendix C3), are survey earnings, not measures of demand.

The limits of the Victorian comparison are set out with it in Appendix C.

One row of Table 1 rests on a document that does not carry it. The Queensland wage schedule used here prints health practitioner rates by level and pay point and names neither profession, so placing both in the same stream is taken from the award's classification definitions, which were not retrieved. That row should be read as inferred rather than read off the instrument.

Where rates attach to a band rather than to a profession, the ratio is fixed by the structure of the document before any comparison is made. Two of those instruments key the entry step to the length of the qualification rather than to the profession: the Australian federal award, as consolidated to July 1, 2026, labels five of its six Level 1 pay points by qualification in clause 17.2 (pay point 1 "UG 2 qualification", pay point 2 "3 year degree entry", pay point 3 "4 year degree entry", pay point 4 "Masters degree entry", pay point 5 "PhD entry"), and the New South Wales award sets the entry step by qualification at clause 5.2. A ladder of that design reports parity at matched pay points while placing two professions with different entry degrees at different points on it.

All figures are base scales. Allowances, premiums, high-cost-area supplements, locality pay, special salary rates and the Title 38 pay authorities are excluded, and each of those can apply differently by occupation. No falsification condition was specified in advance, and the band is two-sided, with values above and below parity both read as bounded. Stated after the fact, and worth less for that: an instrument reporting a ratio outside roughly 90 to 110 percent would not fit the description, and the American federal case at 83.4 percent is outside it. A reader is entitled to note that the range was drawn once the observations were in hand.

How each effective date was chosen, and which successor instruments were not pulled live, is set out in Appendix C.

No inference about sex-based undervaluation is drawn. The sex composition of the two professions was not analysed, and nothing here should be read as a finding, or as an allegation, that any pay difference described is attributable to discrimination of any kind. One instrument, the 2023 New Zealand settlement, arose from a pay equity process, and the Enderby judgment in section 7 concerns equal-value claims between predominantly female and predominantly male jobs.

Table 4, in Appendix C, shows how far each headline figure moves under a defensible alternative reading.

9. Conclusion

In the ten non-American instruments in Table 1, placement ranges from parity by construction to within about five and a half points on separate scales at the columns read. The expectation set out in section 1, that a gap belonging to the professions themselves would appear in these instruments too, is not met in them. The one national US instrument examined, the General Schedule as Veterans Affairs applies it, places dietetics one grade below physical therapy: 83.4 percent on the base schedule and 79.2 percent in realised mean salary. The national market ratio, 73.3 percent, is a different measurement. Entry credentials differ across countries and state plans were not examined, so which of the accounts in section 7 explains the difference is not established here.

Data availability

Every source used in this report is public. The pay instruments are documents issued by third parties, and they are identified by their issuing body, citation and effective date rather than redistributed: they are collective agreements, award texts, nomenclatures and public-sector pay circulars, and the deposit does not hold them because their licence terms were not confirmed. The primary sources are the twelve instruments listed in Table 1 and section 5, which are not in the deposit. The deposit does hold these United States government documents: the Department of Veterans Affairs hybrid Title 38 occupations schedule of December 19, 2024 and captures of the two qualification standards cited with it; the Office of Personnel Management job family standard for the 0600 Medical and Healthcare group and the 2026 General Schedule base table; the OPM FedScope extract for September 2024; and the Bureau of Labor Statistics Occupational Employment and Wage Statistics for May 2025.

The effective-date audit, a SHA-256 manifest of 70 top-level files of the author's archive, the figure code with a script that checks edits to it, the records of the validity gate run and of its negative tests, and most of the derived series are deposited at 10.5281/zenodo.23044648, with a version 1.1 supplement at 10.5281/zenodo.23570346 (concept DOI 10.5281/zenodo.23044647). The two scripts read their inputs from paths in the author's

working folder, so they do not run from the record as it stands. The version 1.0 audit has eleven rows, none for the General Schedule or Victoria, and Appendix B lists the derived series that are not deposited. The supplement adds the search records, a Victoria file with all nine paired cells, a SHA-256 for each of seven sub-folder documents the report cites, and the audit with three rows read again at the columns Table 1 uses. The scripts of the gate and of its negative tests are not deposited, only the records of their runs. Each manifest lets a reader who retrieves the same document confirm byte for byte that it is the copy read here, for the documents it lists.

Sources that are replaced or revised on a schedule are identified by the date they were read: the Commission on Dietetic Registration count as of August 31, 2026, from a page captured September 5, 2026; the FedScope extract for September 2024; and the successor-agreement position as at September 22, 2026.

How this report was checked

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed: the text was read by AI review agents through several separate lenses for statistics, sources, consistency and disclosure, each finding was then triaged by a skeptic, and the contested figures were re-derived from the archived pay instruments. Every correction that review classed as blocking or major was confirmed at the issuing instrument itself before it was written in. A validity gate of 1,409 checks was run on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten. Appendix A sets out the effective-date rule and how it was enforced, the provenance and the manifest, the gate and its negative tests, the extraction and its read-back against the documents, the search record, and what the checking could not reach.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

Corrections

Corrections to this report are dated, labelled and appended below, never made silently. Each correction names what was wrong, where the wrong figure came from, who identified it, and whether the argument survives. The version history for the series is in the series Introduction.

No corrections have been issued to version 1.0 as of the release date.

Correction, version 1.1, October 22, 2026. Appendix A and the Data availability statement said that the deposit carries an effective-date audit that records, for every figure in Table 1, which cell was read. For three instruments the audit file records the dated column before the one Table 1 reads. England: the audit records the April 1, 2025, band 5 entry rate of GBP 31,049, and Table 1 reads April 1, 2026, GBP 32,073. Ireland: the audit records the March 1, 2025, staff-grade scale, EUR 44,122 to EUR 63,154, and Table 1 reads June 1, 2026, EUR 45,514 to EUR 65,068. The Australian federal award: the audit records the 2023/24 wage guide effective July 1, 2023, and Table 1 reads the award as consolidated to July 1, 2026. The audit was not rerun when Table 1 moved to the later columns. The ratio is exactly 100 percent in both columns in all three, because each instrument places both professions on one scale. No ratio, range or finding changes. The version 1.1 supplement to the data record carries the audit with the three rows read at the columns Table 1 uses. The earlier readings are kept and marked as superseded. The version 1.0 archive keeps its earlier audit file as it was. Appendix A's list of what the checking could not reach now says that these three audit rows were read again. AI review agents the author directed found this on September 30 and October 1, 2026. The argument is unaffected.

Correction, version 1.1, October 22, 2026. One sentence in section 8 (Limitations) said that the Australian federal award's Level 1 pay points begin at three-year degree entry. That leaves out pay point 1. Clause 17.2 of the award as consolidated to July 1, 2026, labels pay point 1 "UG 2 qualification" and pay point 2 "3 year degree entry". The sentence now gives the labels as the clause prints them. An AI review agent the author directed found this on October 2, 2026. No ratio or number changes, and the argument is unaffected.

Correction, version 1.1, October 22, 2026. This report described its data record inexactly in 16 places, and described the contents of Report 4 inexactly in one. It said that the derived series behind every figure, an effective-date audit of every figure, the verification code and the search record were deposited, and that a build record was published. The data record holds most of the derived series, an audit of eleven rows, the figure code, the records of the gate run but not the gate scripts, and an earlier, separate search log. The figure legends referred to images printed inside the figures without saying that the images are in the data record and not in this PDF, and two of them said more than the images print. The report also gave "no right to republish" as the reason the instruments are not deposited, where the record's reason is that their licence terms were not confirmed. The text now says what the record holds. Version 1.1 of the data record adds the search records for section 2, a Victoria file with all nine paired cells, and hashes for seven sub-folder documents the report cites. The Figure 4 image in the version 1.0 data record plots eight of the nine pairs. A read-only AI audit the author directed found these on October 2, 2026. No finding changes, and the argument is unaffected.

Updated October 22, 2026: the declaration of conflicting interest was updated and now discloses more, and the status note, the statement on the use of artificial intelligence and the printed check count were updated. Section 2 now counts ten PubMed queries, the number in the record of the literature pass (Appendix A), where it said nine. Australia's federal award took a new classification structure on October 1, 2026 ([2026] FWCFB 123), so three sentences about it and its 100 percent ratio in Table 1 now say that they describe the award as consolidated to July 1, 2026. None of this changes a finding.

Glossary

- **Agenda for Change.** The pay system covering most non-medical staff in the United Kingdom National Health Service, under which pay attaches to a numbered band rather than to a profession.
- **Candidate Advanced Practice.** A trainee advanced-practice grade, created in the Irish health service in 2026 at one scale for four professions.
- **Central plan.** In Ontario, the pay equity plan negotiated centrally for the participating hospitals, under which the central agreement prints a schedule inclusive of pay equity adjustments beside an unadjusted one.
- **Correctif.** In Quebec, an equity correction ordered under the pay equity statute, as distinct from a negotiated salary increase.
- **Echelon.** A step on a pay scale. Quebec's nomenclature prints eighteen for each of the two titles compared here.
- **Full performance level.** In United States federal classification, the grade a fully qualified practitioner in an occupation is expected to reach.
- **General Schedule.** The main United States federal pay schedule, on which pay attaches to a grade and a step rather than to an occupation.
- **Hybrid Title 38.** Appointment under the Department of Veterans Affairs' own personnel authority while being paid on the General Schedule.
- **Pay equity maintenance.** Under Quebec's statute, the periodic exercise that checks whether an employer's pay equity has been preserved since the last valuation, and orders a correctif where it has not.
- **Physiotherapist.** The profession titled physical therapist in the United States. Both titles appear in this report, each where its own instrument uses it.
- **Rangement.** The job-evaluation rank the Quebec nomenclature assigns to a job title, which determines the salary scale that title is paid on.
- **Rung width.** The distance in pay between two adjacent grades, rangements or schedules of one structure. It differs widely between instruments, so the same one-rung classification decision is worth different amounts on different grids.
- **Scheduled rate.** The rate a pay instrument prints for a classification at a step, before allowances, premiums, locality pay and special salary rates. Every ratio in this report is of scheduled rates, except where a realised or survey figure is named as such.
- **Spanning instrument.** A single pay instrument that sets rates for both of the professions compared here.
- **Whitley.** The United Kingdom national council system that set National Health Service pay scales by staff group before Agenda for Change replaced it.

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Figure legends

The figure images are in the data record, in its figures folder as PNG and EPS files, and not in this PDF; the legends below describe them.

Figure 1. Seventy-six scheduled observations. Forty-seven sit exactly on parity. Every scheduled dietitian-to-physiotherapist ratio computed in this study, at every band, step or echelon for which both professions are carried in one instrument. Instruments with a single value place both professions on one line; those with spread carry them on separate scales. The only observations outside 94.6 to 103.3 percent, which is the range at the columns read in Table 1, are the two from the US General Schedule, one grade of 19.9 percent apart. Ireland's fourteen points are one common scale printed under separate title codes; five further Irish grades coincide and are not plotted. The United Kingdom is plotted at the nine numbered Agenda for Change bands, bands 8a to 8d folding into band 8; the value is 100 at every band. Base scales, excluding locality pay, allowances and premiums, and entry credentials are not held constant. The image in the data record prints the column read for Ontario, Quebec, British Columbia, Alberta and the 2026 General Schedule only, with an effective date for the first four; the columns and dates of the other instruments are in the effective-date audit. The US open-market figure is a different measurement and is not plotted here.

Alt text: Across seventy-six scheduled rates drawn from the ten non-American instruments in Table 1 and the US General Schedule, dietitians sit exactly at parity with physiotherapists in seven instruments and within about five and a half points of it in the four separate-scale Canadian cases; the only observations away from that range are the two US General Schedule points at about 83 percent, one grade below. Victoria's two agreements, where the professions are paid under separate instruments, are in Figure 4 and are not plotted here.

Figure 2. Relative pay by how an instrument places the two professions. Panel A gives the scheduled rate, dietitian as a percentage of physiotherapist at each profession's own classification and a matched step inside one instrument; Ireland is plotted with the shared grids because its common scale returns 100. Panel B gives a survey average across an entire occupation and has its own axis; it is a different measurement and not a fourth point on Panel A. Base scales, excluding locality pay, allowances and premiums, and entry credentials are not held constant. The image in the data record prints the columns read for Ontario, Quebec, British Columbia, Alberta and the 2026 General Schedule only, with an effective date for the first four; the rung width confirmed at the instruments, for Alberta's Pay Grades 5 and 5a and the General Schedule only; the composition of the comparator lines for Ontario, British Columbia, Alberta and Quebec; and the sources of the instruments plotted and of the United States figures.

Alt text: Where one public instrument places both professions on the same level the dietitian rate is exactly 100 percent of the physiotherapist rate; where the instrument carries them on separate scales a few percent wide it is 94.6 to 103.3 percent; where it places them one grade of 19.9 percent apart it is 83.4 percent; and the US open labour market, on a separate axis because it is a survey average rather than a scheduled rate, is 73.3 percent.

Figure 3. Quebec: a negotiated 2 percent increase moved the ratio once, in 2021. Granted inside a pay equity maintenance accord but styled a salary increase, not the equity correction. The ratio is computed at each of the nine dated rate columns the instrument prints for both professions, across all eighteen echelons. It held at 96.89 percent in the 2019 and 2020 columns, which are the accord's restated rates, stepped to 98.82 percent in 2021 when a 2 percent increase to the dietitian scale took retroactive effect from March 20, 2021, and holds there through 2027. The step, 1.94 points,

equals that 2 percent as an identity; the accord styles it a salary increase, not an equity correctif, and the correctif proper, 3.28 percent, was retroactive to 2010 and predates the series. Values are the mean of the eighteen echelon ratios at each dated column; the range at any one column is given in Table 1. Rates are as printed in the instrument; the 2027 column had not taken effect at September 22, 2026.

Alt text: Quebec's dietitian-to-physiotherapist ratio is flat at about 97 percent for the 2019 and 2020 columns, steps up about two points in 2021 when a negotiated 2 percent increase reached the dietitian scale alone, and is flat again at about 99 percent through every column printed to 2027; entry echelons sit above parity throughout and the top of the scale about three points below it.

Figure 4. Victoria: dietitians and physiotherapists in separate agreements, paired by printed position. Dietitian pay as a percentage of physiotherapist pay where the two professions are covered by different instruments, at the rates in force April 1, 2025. Grade 1 runs from 90.5 to 95.7 percent across five paired points; Grade 2 begins at 104.7, falls to 99.0 by the third point and returns to 103.1 at the fourth. Five of the nine paired cells lie outside the 94.6 to 103.3 band observed at the columns used in Table 1: four below it and one above. This is a cross-instrument comparison: the agreements have no common effective date, the grades are not established as functionally equivalent, the ladders differ in length, and at January 1, 2025, the Grade 1 entry ratio is 93.50 rather than 91.67. The shaded band is the range at the columns read in Table 1. The image in the version 1.0 data record plots eight of the nine paired cells and says that five of the eight lie outside the band; the file with all nine pairs is in the version 1.1 supplement.

Alt text: In Victoria, where dietitians and physiotherapists are paid under two different enterprise agreements, the dietitian-to-physiotherapist ratio runs from 90.5 percent at the second year of Grade 1 up to 95.7 percent at the fifth, while Grade 2 begins above parity at 104.7 percent, falls to 99.0 percent by its third year and returns to 103.1 percent at its fourth; five of the nine paired cells fall outside the range seen wherever a single instrument carries both professions, four below it and one above.

Supplementary Figure S1. The Canadian grids along their length: a slope in Ontario and Quebec, a fixed gap in British Columbia. Dietitian pay as a percentage of physiotherapist pay at each point along four Canadian pay grids. The horizontal axis is fractional progression through each grid, because the provinces print different numbers of steps: Quebec eighteen echelons, Ontario six service steps, British Columbia a range across 140 cells, Alberta one shared pay grade. Ontario starts above parity and ends below it; Quebec starts just above parity and declines gently; British Columbia sits below parity at both ends and is close to a fixed proportion along its length; Alberta's Pay Grade 6 carries Dietitian II and Physiotherapist II on one grade, so it returns 100 at every step. Columns read: Ontario April 1, 2024, on the pay-equity-adjusted schedule; Quebec April 1, 2025; British Columbia the first pay period after April 1, 2025; Alberta April 1, 2023. Base scales, excluding premiums.

Alt text: Along the length of four Canadian pay grids the dietitian-to-physiotherapist ratio falls as service lengthens in two of them: Ontario begins at 103.3 percent at the start of the grid and ends at 94.6 percent at the top, and Quebec declines gently from 100.6 to 97.1, while British Columbia sits just below 96 percent at both ends and Alberta's one shared pay grade returns exactly 100 percent throughout.

Appendix A. Methods and verification in detail

The effective-date rule, and how it was enforced. Nine of the instruments print more than one dated column or row for at least one of the two professions, and in each of those a positional match rather than a header match would have produced a wrong ratio. An extraction audit has one row for each of the ten non-American instruments in Table 1 and one for New Zealand's scale before 2023, eleven in all; the version 1.1 file adds three rows for the columns Table 1 reads and marks the three earlier rows as superseded. Each row records the cells read (a representative pair, or the two ends of a scale), the header each was matched on, the basis and a verdict. There is no row for the General Schedule or for Victoria. Four instruments are the high-risk cases: Ireland, Ontario, Quebec and New Zealand before 2023. The audit's notes call Ireland a high-risk instrument and Ontario the highest-risk instrument audited, describe Quebec as the originating trap, and mark New Zealand before 2023 as the one case where the two figures carry different effective dates. Ireland prints two dated rows for every grade. Ontario prints five dated columns on each grid, and the dietitian grid is interleaved on the page with an adjacent grid that carries identical 2021 and 2022 values and diverges only from 2023; reading Start from that adjacent grid at the April 1, 2024, column would have returned 97.0 percent instead of 103.3 and reversed the entry-level finding. Quebec prints ten dated columns for the dietitian and nine for the physiotherapist, so column position does not correspond between them; matching by position would have compared the dietitian's 2025 rate with the physiotherapist's 2026 rate and turned a 0.55 percent entry premium into a 1.9 percent deficit. New Zealand before 2023 is the one case in the set where the two figures carry different effective dates, which is why no within-instrument ratio is computed for it (section 3).

Provenance. Every instrument read is archived. The deposit named under Data availability carries a SHA-256 for each of 70 top-level files of the author's archive as it stood on September 22, 2026, alongside most of the derived series, the effective-date audit and the figure code. The version 1.1 supplement adds a SHA-256 for each of seven sub-folder documents the report cites: the Irish expert group report, the three Whitley circulars, two Alberta statute captures and the member communication of December 12, 2023. The twelve instruments themselves are not deposited: they are collective agreements, award texts and public-sector pay circulars issued by third parties, and their licence terms were not confirmed. The United States government documents named under Data availability are deposited. Each manifest lets a reader who retrieves the same document confirm byte for byte that it is the copy read here, for the documents it lists.

The gate. A build gate binds each printed figure to a recorded output rather than to a working note. Load-bearing figures are declared once, with the documents that must carry each, and superseded values are listed so that a retired number fails wherever it reappears. The gate was negative-tested, which means defects were planted one at a time in a copy of the text to confirm that it fails rather than passing silently; two of the planted defects were missed on the first run for version 1.0, and the gate now catches them. The records of the gate run and of its negative tests are deposited: those for version 1.0 in the data record, and those for this version in the version 1.1 supplement. The scripts of the gate and of its negative tests are not deposited.

Extraction. The pay figures were extracted from the primary documents with machine assistance and then read back against those documents cell by cell. The effective-date audit records that reading for a representative pair of cells in each of eleven rows, and the record of the gate run reports that every scheduled rate printed in the text was located in its archived instrument. The use of an AI tool in this work is described under Use of artificial intelligence.

Prior art. The searches behind the statement in section 2 are recorded in the version 1.1 supplement. The supplement holds the records of two searches run on September 5, 2026. The first is a log of 104 queries, with the database, the query string and the result of each, eight of them PubMed queries, and the author's statement of the finding tabulates them by interface and gives three limits of the search. The second is the literature pass, and section 2 gives its counts. The record of the literature pass, taken on October 2, 2026, from the call log of the author's AI literature search tool (see Use of artificial intelligence), lists 106 OpenAlex searches, ten PubMed queries and five citation-graph expansions. Of the OpenAlex searches, 63 returned the 1,771 unique records that the author's literature note counts as screened, and a list in the supplement gives those records. The note counts nine PubMed queries for the pass, one fewer than the record lists, and section 2 gives the ten in the record. The note does not list the query strings in full or the records screened. The record gives every query string, and the list gives the 1,771 records; the records returned by the PubMed queries, by the citation-graph expansions and by the 43 other OpenAlex searches are not listed. The search log in the version 1.0 data record is an earlier, separate log. The finding is reported as searched and not found, not as an established absence.

Independent audit. This version was rebuilt against an independent audit of the manuscript completed on September 15, 2026, which read the text through several separate lenses, had each finding checked by a skeptic, and re-derived contested figures from the archived instruments. Four corrections it classed as blocking, thirteen as major and twelve as minor were applied here, and every one of them was confirmed at the instrument itself before it was written in; the two journal references it corrected were re-verified at Crossref on September 22, 2026. Three of the audit's own statements about instruments did not hold when checked and were not applied as drafted; those are named in the correction register and the verification sheet in the data record. Two figures in the text as audited were wrong in the same way and are corrected here: one count of paired cells outside the band, and one rung-width range. This report is self-published and is not a journal publication.

What the checking could not reach. The verification has gaps, and they belong here rather than in a reader's hands.

- The New South Wales, Queensland and New Zealand grids were not re-parsed from the award and pay-guide documents for this version beyond band counts and the New Zealand column dates, and the earlier extraction audit was relied on for them. The audit rows for the United Kingdom, Ireland and the Australian federal award were read again at the columns Table 1 uses for version 1.1.
- The Queensland classification definitions were not retrieved, so that row of Table 1 is inferred rather than read off the instrument (section 8).
- Successor agreements for Ontario, for the two Victorian agreements and for Alberta's current column were not pulled live. What is reported is the last published position, as at September 22, 2026.
- Whether the Veterans Affairs dietitian qualification standard has been amended since the archived capture of July 3, 2025, was not established.
- The Texas classification codes cited for the state-plan sentence in section 6 were not pulled.
- Statistics Canada's 2021 Census by occupation and the Jobs and Skills Australia wage tables were not read: the first loads dynamically and the second timed out. Those are blocked, not checked.
- The Canadian realised-earnings figure in Appendix C3 was read on September 29, 2026, from Employment and Social Development Canada's open data release of the Job Bank wages, because the Job Bank's own wage pages returned a reorganisation notice on September 22, 2026. It is a single reading of one file, archived as the two national rows.
- A page number in one cited book chapter was not checked against the printed volume.
- Several figures rest on a single reading rather than two: the Ontario band mapping, the Irish scales and title-code counts, the Australian award listing and the General Schedule table. The British Columbia, Alberta, Ontario and Quebec figures used here, the six survey comparator ratios in section 6, and the Whitley rows were re-derived from the archived files on September 22, 2026.

Appendix B. Data

The derived series are deposited for most of the figures. Quebec's eighteen echelons are there at each of the nine dated columns the nomenclature prints for both professions: the ratios at all nine, and both rates at April 1, 2025. Ontario's six steps are there at the April 1, 2024, column on the pay-equity-adjusted schedule, with the April 1, 2023, column of both schedules in the provenance memo. The Victoria paired cells are there as eight of the nine in the version 1.0 data record and as all nine in the version 1.1 supplement. The New Zealand pre-settlement columns are there only as an excerpt of six columns at steps 1, 9, 13 and 17, in the file of unverified items and search log. General Schedule grades 11 and 12 at all ten steps are in the deposited Office of Personnel Management table, not in a derived series. Four further series are not deposited: Ontario's six steps on both schedules at all five columns (Table 4 of Report 5 gives the ratios), the Whitley rows for 2002, 2003 and 2004, the New Zealand pre-settlement series at every step, and the table of the transmittal dates and full performance levels of the Veterans Affairs qualification standards. The first three transcribe third-party documents, and the record excluded them under its rule to exclude when in doubt about licence terms. The fourth is hashed in the version 1.0 instrument manifest and is not in the archive. Two tables that belong to the same evidence are not duplicated here: the Quebec scales read against the rangement one rank lower, and Ontario's adjusted and unadjusted schedules read in full, are in Report 5 of this series.

Appendix C. Detail moved from the main text

This appendix holds passages the main text points to, moved unchanged on September 29, 2026, except the last row of Table 4, whose effect column now says the scheduled gap, not the scheduled ratio, is the floor.

C1. New Zealand before its 2023 settlement (from section 3)

New Zealand before the 2023 settlement is the second worked example, and the more consequential one. Read down one pair of columns, the pre-settlement columns of the settlement's translation workbook appear to pay dietitians more than physiotherapists at every step, by NZD 3,500 through step thirteen and NZD 5,700 above it. Read across the workbook, dietetics is numerically identical at every step to clinical physiology, occupational therapy and social work, and two columns sit below that common allied rate: physiotherapy, and hospital scientific officers by NZD 3,300 to NZD 4,500. The columns carry effective dates from April 1 to July 18, 2022, and the two below the common rate are the two earliest of them, hospital scientific officers at April 1, 2022 and physiotherapy at May 2, 2022, against June 4, 2022, for dietitians.[16] The dietitian and physiotherapist figures therefore come from two agreements settled about a month apart, which is the comparison this rule forbids; Report 5 in this series reads the same two agreements for a different purpose. The number of pre-settlement columns and the exact membership of the common-rate group did not reproduce on audit, so neither is given here. What the workbook supports is that dietetics was on the common allied rate while physiotherapy and hospital scientific officers had not yet reached it. Not that dietitians held a premium, and not that the settlement removed one.

C2. Victoria: the professions in separate instruments (from sections 5 and 8)

The Allied Health Professionals (Victorian Public Sector) Enterprise Agreement 2021 to 2026 gives physiotherapy its own classification and wage table, codes VA2 to VA7 and VB1 to VB4. The word "dietetic" does not appear in its 291 pages, and the word "dietitian" occurs once, at clause 89.6, which reads: "In this clause 89, Allied Health Professional means an employee working in a profession covered by this Agreement, a Dietitian, an Audiologist, or a Psychologist." The construction names dietitians as an addition to the professions the Agreement covers, which only makes sense if they are not among them, and it is scoped to clause 89 alone, which governs who may hold a Director of Allied Health post. A Victorian dietitian is an allied health professional for that purpose and for nothing else in the instrument.[26] Victorian public sector dietitians are classified and paid under the Medical Scientists, Pharmacists and Psychologists agreement instead, where they hold classification codes AI1 to AI7 at Grade 1 and AJ1 to AJ4 at Grade 2, with an allowance schedule of their own.[27]

At the rates in force April 1, 2025 (Figure 4), the dietitian at the first point of Grade 1 is paid 91.67 percent of the physiotherapist at the first point of the physiotherapy Grade 1, 90.51 at the second, and 95.68 at the fifth. At Grade 2 the relationship inverts, beginning at 104.70 percent, falling to 98.98 by the third point and returning to 103.07 at the fourth. The observed spread, 90.51 to 104.70 percent, is 14.2 percentage points, against 8.6 at the columns read in Table 1 and 13.1 when Ontario's 2021 and 2022 adjusted columns are included. Table 3 gives every paired cell, and the two that have no counterpart.

Table 3. Victoria: base weekly salary in each instrument at the rate in force April 1, 2025, paired by printed position on each grade's ladder.

Grade and point	Dietitian, AUD	Physiotherapist, AUD	Ratio (%)
Grade 1, year 1	1,244.40	1,357.50	91.67
Grade 1, year 2	1,291.10	1,426.40	90.51
Grade 1, year 3	1,395.50	1,513.70	92.19
Grade 1, year 4	1,480.70	1,579.60	93.74
Grade 1, year 5	1,580.00	1,651.40	95.68
Grade 1, year 6	1,678.50	no year 6	not compared
Grade 1, year 7	1,771.60	no year 7	not compared
Grade 2, year 1	1,816.90	1,735.30	104.70
Grade 2, year 2	1,871.10	1,814.90	103.10
Grade 2, year 3	1,906.70	1,926.40	98.98
Grade 2, year 4	2,055.90	1,994.70	103.07

Base weekly salary, excluding allowances. The dietitian figures are from the Medical Scientists, Pharmacists and Psychologists agreement and the physiotherapist figures from the Allied Health Professionals agreement.[26,27] The two instruments increase on different dates, the first on December 1 and the second on March 1, so no common effective date exists; each column is the rate that instrument had in force on April 1, 2025, which in both cases is the last scheduled rate of its term. The dietitian's Grade 1 years 6 and 7 have no counterpart and are not forced into a comparison.

This is a cross-instrument comparison with the weaknesses section 3 warns about: no common effective date (at January 1, 2025, the Grade 1 entry ratio is 93.50, not 91.67), no established grade equivalence, and ladders of unequal length, the dietitian's Grade 1 running seven points and the physiotherapist's five after its former Year 1 and Year 7 were abolished, so the pairing is by printed position and the report's own rule against positional matching applies. Section 8 states the further limits on this case, among them that grade equivalence between the two instruments was not established, that entry credentials were not verified for either profession in Victoria, and that whether the two professions were ever covered by one Victorian instrument was not investigated.

Victoria is the weakest comparison here and is reported with its construction visible. The two agreements have no common effective date, so the pairing rests on a calendar choice; at January 1, 2025, rather than April 1 the Grade 1 entry ratio is 93.50 percent rather than 91.67. Both instruments use Grade 1 and Grade 2 nomenclature, but they are separate documents with separate classification definitions, and functional equivalence between their grades was not established; the ladder lengths, seven points against five, are direct evidence that the two are not parallel. Entry credentials were not verified for either profession in Victoria, so the credential objection applies more strongly there than anywhere else in this report. Whether the

two professions were ever covered by one Victorian instrument was not investigated. Whether either agreement has since been succeeded was not established, and what share of Victorian public-sector dietitians is employed under the Medical Scientists agreement rather than under another instrument or an individual contract was not established either.

C3. The American survey figure, a Canadian check and the American Community Survey (from section 6)

The two American measurements also rest on different universes. The survey category 29-1031 is Dietitians and Nutritionists, which is wider than the registered credential; the 77,570 establishment jobs it counts and the registered dietitian and registered dietitian nutritionist credentials on the Commission on Dietetic Registration's registry, counted with its as-of date in the Introduction's Exhibit B2, are not the same population and should not be reconciled.[42] The symmetric check, a realised-earnings ratio for a parity country, was attempted for Canada only: the Government of Canada Job Bank publishes national median hourly wages by occupation from the Labour Force Survey for 2023 to 2024, for dietitians and nutritionists (National Occupational Classification 31121) and for physiotherapists (31202). In Employment and Social Development Canada's open data release of those wages, published November 19, 2025 and read on September 29, 2026, the national medians for 2023 to 2024 are 41.63 Canadian dollars an hour for dietitians and nutritionists and 46.15 for physiotherapists, a ratio of 90.2 percent; the Job Bank's own wage pages returned a reorganisation notice on September 22, 2026 and were not used.[43] That universe includes nutritionists and the survey's sample limits apply, and no comparable figure was obtained for the other systems. American Community Survey microdata for 2024, read on the comparable universe, put the ratio at 75.0 percent at the median and 77.3 percent at the mean, against 74.3 and 73.3 percent in the May 2025 survey: a mean gap of 4.0 points, with a standard error of 2.2 and therefore a 95 percent interval running from about negative 0.3 points to 8.3, and a median gap of 0.6 points. Those intervals exclude neither agreement nor a gap of several points, and they do not carry the wage survey's own sampling error. That comparison is the author's own companion analysis, Report 4 in this series (doi: 10.5281/zenodo.23044622).

C4. The Whitley circulars (from section 7)

These were national scales, printed in a circular of the Scottish Executive Health Department addressed to NHSScotland boards. The circulars print nine rows in each of those three years on which the dietetic and physiotherapy scales are identical figure for figure, and the alignment reaches down to the entrants: each circular carries a dietitian graduate entrant scale against a physiotherapy graduate entrant scale for four years of training, and a dietitian diploma entrant scale against a three-year training scale. Where the structures part is above the working grades. In the 2004 circular the dietetic Area Chief I runs from GBP 34,095 to GBP 37,685 against a physiotherapy Superintendent I of GBP 31,960 to GBP 35,185, Area Chief II sits above Superintendent II on the same pattern, and the physiotherapy Area I grade, GBP 38,935 to GBP 40,325, has no dietetic counterpart at all.[29]

C5. Further limitations (from section 8)

In three systems, Quebec in 2021, Ontario's plan and Ireland's 2000 consolidation, the instruments record a dated change in one candidate factor, but none of those moments isolates a single account and the design does not attempt to separate them; the set of instruments is a convenience set, not a population.

Effective dates are stated with each figure. Ireland's June 1, 2026, scales superseded the March 2025 scales during preparation; the finding is unchanged on both. Ontario's grid is April 1, 2024, under an agreement whose term expired March 31, 2025; a February 2026 arbitration award in the same division records that the successor central agreement had not been concluded.[37] Alberta's column is April 1, 2023, although the archived appendix itself prints rows through 2027, and the British Columbia schedules print 2026 through 2028 rates that were not used; recomputed on the April 1, 2026, schedules across all nineteen salary structures, the British Columbia range is 95.74 to 96.09 percent, which is the April 1, 2025, range unchanged. Successor instruments for Ontario, for the two Victorian agreements and for Alberta's current column were not pulled live for this version; what is stated is the last published position, as at September 22, 2026.

C6. Sensitivity of the reported figures (from section 8)

Table 4 collects the checks behind the paragraphs above, so that a reader can see how far each headline figure moves under a defensible alternative reading.

Table 4. Sensitivity of the reported figures to the column, the schedule and the basis chosen.

Check	As reported	On the alternative	Effect
Ontario read without its top step	Ontario floor 94.64, study floor 94.64	Ontario floor 98.36 at four years; study floor becomes British Columbia's 95.74	3.7 points on Ontario, 1.1 on the study
Ontario on the unadjusted schedule	103.3 at Start, 94.6 at five years	100.8 and 92.7	same width, lower level
Ontario on the 2021 and 2022 adjusted columns	103.3 and 94.6	97.1 and 90.2	band floor falls to 90.2
Victoria paired at January 1, 2025, rather than April 1	Grade 1 entry 91.67	93.50	1.8 points on a calendar choice
Ireland read across the two dated rows the scales print	100.00	101.00	the error the same-date rule prevents
British Columbia on the April 1, 2026, schedules	95.74 to 96.09	95.74 to 96.09	unchanged
Quebec without the 2 percent of the 2021 accord	mean 98.82	mean 96.89	the whole of the 2021 step

United States, scheduled against realised	83.4 on the base schedule	79.2 at Veterans Affairs, 81.8 government-wide	realised ratios are lower; the scheduled gap is the floor

Ontario and Quebec figures are the instruments' own printed columns; the British Columbia recomputation is across all twenty salary structures and seven service-year columns of each schedule; the American realised figures are OPM FedScope means for September 2024, locality pay included.

Report 9

Did the 2012 forecast of a dietitian shortage show up in pay? Need, interest and paid demand in the United States, 2012 to 2025

The Dietetics Workforce Reports, Report 9, version 1.1 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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Released. September 30, 2026, version 1.0. Version 1.1, October 22, 2026, appends dated corrections (see Corrections); no result or finding changed.

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In brief

What it asks. In 2012 the profession's workforce study forecast that the 2020 supply of dietitians and dietetic technicians would meet about 75 percent of demand, and expected that excess demand might raise incomes. This report asks whether dietitian pay, relative to six other clinical occupations, rose from 2012 to 2020.

What it finds. On the comparison fixed in advance, it did not rise measurably. A dietitian's average pay was about 75 cents for every dollar of the median of the six comparators' average pay in May 2012, and about 77 cents in May 2020: a change of 1.5 points with a 95 percent interval of -0.4 to 3.4. The 1.5-point estimate traces to chiropractors, whose pay grew slowly. From 2012 to 2020, dietitian pay grew about as fast as four of the six comparators', more slowly than registered nurses' and faster than chiropractors'. Leaving out one comparator at a time, the change is 3.0 points, with the lower end of its interval just above zero, when chiropractors become the median, and -0.2 otherwise. The forecast projected service use, which it called market-based demand, and a search of its text found no dietitian wage input; the design cannot separate a shortage that never developed from one that did not reach pay.

What it adds. A new forecast of demand for 2025 to 2035, commissioned by the Commission on Dietetic Registration, is dated August 12, 2026. A dated search found no study that checked the last forecast against later pay. This report does so. Its check was fixed before the May 2012 and May 2020 wage files were downloaded, though the author may have seen the relative-pay series earlier.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed. AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate tested each number in the text, tables and appendices, other than years, dates, times, labels and codes. It passed a number if it equaled some value in the deposited files or a registered constant, whether quoted from a named source or set by the design. It did not scan the reference list, figure legends or alt text. Altogether it ran 380 checks on the final text, and the author reviewed the results, sources and text. The analysis plan was frozen, that is, fixed and timestamped so that any later change would show, before the May 2012 and May 2020 wage files, the two the test compares, were downloaded; some wage figures had appeared in earlier reports of this series (section 2.1). The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

What this report asks

This report separates three things that discussion of the dietetics workforce often treats as one. **Need** is how many people have conditions a dietitian treats. **Interest** is public spending on, use of and attention to nutrition, with research output counted alongside. **Paid demand** is what employers and payers pay for a dietitian's time. The three terms are this report's own, each defined by its measures; the health workforce planning literature draws a similar line between requirements set by a population's needs and those set by current use of services.[1]

It then asks one analytic question. The 2012 Dietetics Workforce Demand Study forecast a shortfall for 2020. If that shortfall developed, textbook supply and demand predicts that dietitian pay rose relative to comparable occupations from 2012 to 2020. The report tests that prediction on the federal wage survey, with the test and the result that would count against it fixed in advance. It does not identify causes. A rise or fall here is "consistent with" an explanation, never proof of it.

Key findings

- **On the comparison fixed in advance, relative pay did not rise measurably from May 2012 to May 2020.** The dietitian mean annual wage was 75.3 percent of the median of six comparator occupations in May 2012 and 76.8 percent in May 2020. The change, 1.5 points, has a 95 percent interval of -0.4 to 3.4, which counts against the hypothesis. The result is sensitive to the comparison set, and every measurable rise traces to chiropractors, whose pay grew slowly. With registered nurses, speech-language pathologists or respiratory therapists left out in turn, chiropractors became the 2020 median and the change was 3.0 points, with the lower end of the interval at 0.1; with any of the other three left out, it was -0.2 points. Against each comparator alone, relative pay was flat against four, fell against registered nurses and rose against chiropractors. In May 2019 it was below its 2012 level on the full median and on every leave-one-out median; the rise arrives in the May 2020 release. Summaries that do not depend on which comparator sits in the middle, such as the ratio to the comparators' geometric mean, show no measurable change. The author may have seen the relative-pay series before the plan was frozen.
- **The 2012 forecast projected service use, not need, and its task force said excess demand may result in higher incomes.** Its model assumed that the 2010 supply of credentialed practitioners was "in equilibrium with demand for dietetics services". It then grew that demand by more than 3 percent a year with historical service use, population, program participation, insurance coverage, income, payrolls and industry sales; the article calls its clinical projections market-based demand. A search of its text found no dietitian wage or vacancy measure among the demand inputs. The plan's condition for a forecast of need therefore does not apply, and H1 is read as written. The task force said that excess demand "may result in higher incomes during the next decade", and the article's authors wrote that higher earnings are "probable under increasing demand scenarios"; either is the prediction H1 checks.
- **Paid work for dietitians grew at a middle pace.** From May 2012 to May 2025, dietitians ranked fifth of seven occupations in employment growth, third in the change in real mean wage and fourth in wage-bill growth. Relative pay was 2.0 points higher in May 2025 than in May 2012 (0.7 to 3.4), outside the tested window, with 1.5 of those points arriving by May 2020. Against broader benchmarks, dietitian pay lost ground: from 122.7 to 116.5 percent of the all-occupation mean wage between May 2012 and May 2019. In a descriptive comparison added after review, jobs for dietitians and nutritionists grew about 1.6 percent a year over 2012 to 2020, between the forecast's 1.1 percent for credentialed supply and its more than 3 percent for demand, and counted on a different basis from either.
- **Supplement use and vitamin spending rose; need rose less clearly.** Adult use of dietary supplements went from 53.8 to 60.2 percent between 2013 to 2014 and August 2021 to August 2023, and household spending on nonprescription vitamins from $51 in 2012 to $131 in 2022. Age-adjusted obesity among adults was 34.9 percent in 2011 to 2012 and 40.3 percent in August 2021 to August 2023, with no significant change since 2013 to 2014 by the National Center for Health Statistics' test; total diabetes was 12.5 and 14.3 percent, with overlapping confidence intervals. Dietetics' share of PubMed records fell, and Wikipedia page views fell for every article with a full series.

Plain-language summary

In 2012 a study commissioned by the Academy of Nutrition and Dietetics and the Commission on Dietetic Registration forecast that by 2020 supply would cover only about three-quarters of the demand for dietitians. It expected the shortage might raise incomes. This report checks whether dietitian pay rose against similar jobs.

On the comparison chosen in advance, it did not measurably. Dietitians earned about 75 to 77 cents on the dollar against the middle of six comparable clinical jobs, in 2012 and in 2020. Their pay grew about as fast as four of the six; it slipped against registered nurses and gained only against chiropractors, whose pay grew slowly.

The study projected how many dietitian services people would use, not what employers would pay. The shortage may not have arrived, or may have shown up as unfilled jobs rather than raises: most employers surveyed in 2025 did report positions they could not fill.

Other things rose. More adults take supplements and households spend more on vitamins, though nothing here links that spending to demand for dietitians. Obesity and diabetes were somewhat more common than in 2011 to 2012, though federal statisticians find no significant change in obesity since 2013 to 2014.

The sentence to repeat: on the comparison fixed in advance, the dietitian shortage forecast in 2012 did not show up measurably in dietitians' pay relative to comparable clinicians by 2020. Dietitians still earned about three-quarters of the median of the comparators' average pay.

Abstract

Background. Dietitians had the lowest mean wage of seven clinical occupations in the federal wage survey for May 2025. A common argument holds that demand for nutrition expertise should raise their pay. The profession's 2012 workforce study forecast that 2020 supply would meet about 75 percent of demand.

Objective. To test whether dietitian pay, relative to six clinical occupations, rose from 2012 to 2020, and to describe need, interest and paid demand from 2012.

Methods. Observational study, planned and timestamped before the May 2012 and May 2020 wage files were downloaded; the author may have seen the relative-pay series earlier. Federal wage survey estimates, May 2012 to May 2025, for dietitians and six comparator occupations, with simulated 95 percent intervals from the published standard errors. Descriptive federal health, spending and publishing series. The 2012 study was read in full for how it set demand.

Results. The dietitian mean wage was 75.3 percent of the comparator median in May 2012 and 76.8 percent in May 2020, a change of 1.5 points (95 percent interval -0.4 to 3.4), which counts against the hypothesis. The rise traces to chiropractors becoming the 2020 median: leaving out one comparator at a time gives 3.0 points (lower bound 0.1) or -0.2, and against each comparator alone relative pay was flat against four. The forecast projected service use; a search of its text found no dietitian wage input. Supplement use and household vitamin spending rose.

Conclusions. On the comparison fixed in advance, the shortage forecast in 2012 did not appear as measurably rising relative pay by 2020, though the result depends on the comparators and on one release. The design cannot separate a shortage that never developed from one that did not reach pay.

Keywords: dietetics workforce; supply and demand; relative wages; workforce projections; Occupational Employment and Wage Statistics; dietary supplements

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of the occupation whose pay and demand this report examines. He has argued in commentary that demand for nutrition expertise should raise dietitian pay; this report was designed to test a version of that argument, and its hypothesis was frozen before the May 2012 and May 2020 wage files were downloaded. Either result could be read as supporting positions he has taken: a rise as demand reaching pay, a flat result as pay not following demand. He owns Vitae Arete LLC, which publishes this report series and offers fee-based nutrition counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; the findings reported here do not bear on those proposals. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He has no relationship with The Lewin Group or Mathematica. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this work (Use of artificial intelligence). He is credentialed by the Commission on Dietetic Registration, which this report discusses. Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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1. Introduction

1.1 The problem

In the federal wage survey for May 2025, dietitians and nutritionists had the lowest mean annual wage of the seven clinical occupations this series compares, $77,130.[2] A common argument, the author's included, is that demand for nutrition expertise is high and rising, which should raise dietitian pay. A 2012 workforce study gives a dated forecast to test it against. The Academy of Nutrition and Dietetics and the Commission on Dietetic Registration commissioned it. It forecast that the 2020 supply of credentialed practitioners would meet about 75 percent of demand.[3] The article gives two figures for 2020: about 75 percent of demand met in its executive summary, and 78 percent in its baseline projection, a shortage of 22 percent; this report uses 75 percent in its main text.[3]

1.2 What is known

The 2012 study, by Hooker and colleagues at The Lewin Group, projected that demand for all dietetics services would grow more than 3 percent a year and the net supply of credentialed practitioners 1.1 percent a year.[3] Its model assumed that in 2010 the supply of credentialed practitioners was in equilibrium with demand for dietetics services, then grew demand with service-use trends in federal health care surveys, population change, insurance coverage, income and, for two practice areas, industry sales and payrolls. A companion reanalysis of twelve Academy and Commission surveys from 1995 to 2011 suggested that the supply of registered dietitians lagged slightly behind demand.[4] A scenario paper in the same supplement

set out four futures of high or low supply and demand.[5] New projections from Mathematica, commissioned by the Commission and dated August 12, 2026, set baseline demand ten percent above estimated 2025 supply, a value informed primarily by the Commission's 2025 employer survey, in which a large majority of employers reported positions they were unable to fill; Mathematica notes the survey does not directly estimate the size of a national shortage.[6] The series Introduction reads the ten percent as an assumption, and this report does not assess Mathematica's method.

Studies from economics, sociology and health policy bear on it. Katz and Murphy used a simple supply-and-demand framework to analyze changes in the US wage structure from 1963 to 1987.[7] Staiger, Spetz and Phibbs estimated that nurses' labor supply to individual hospitals is quite inelastic, changing little with a hospital's wage, evidence of employer wage-setting power.[8] Across US labor markets, Hirsch and Schumacher found little evidence that such power holds down nurses' relative wages over the long run.[9,10] Levanon, England and Allison found substantial evidence that a rising share of women in an occupation lowers its pay.[11] Kleiner and Krueger found licensing associated with about 18 percent higher wages.[12] Ratliff and colleagues found that inflation-adjusted wages rose in every health care occupation they examined over 2012 to 2023, registered nurses' least.[13] Their abstract names no data source, and the author could not access the full text; over the same window the real mean wage in the survey used here fell for dietitians (-4.4 percent) and four comparators and rose for registered nurses (4.8 percent) and respiratory therapists (5.8 percent), so the sources differ.

Closest in design, Walton, Kim and Weiner read changes in relative wages and employment across 19 broad health care occupation categories in the same wage survey, 2010 to 2014, as shifts in demand and supply; their abstract does not say whether dietitians were among the categories.[14] Two earlier studies compared dietitian pay with other health professions' at one point in time: entry-level hospital dietitians in seven Midwestern states ranked sixth of eight professions on salary in 1982, their salaries up 54 percent since 1977 against a 59.7 percent rise in regional prices,[15] and program directors described job markets and salaries in six allied health disciplines, dietetics among them, in 1987.[16]

1.3 The gap

On September 30, 2026, four PubMed searches and four OpenAlex searches looked for studies setting demand for dietitians' services against their pay; Appendix C gives the queries, counts and screening. Among the records screened, apart from Walton and colleagues' reading of relative wages across health care occupations, none set a measure of demand for dietitians' services against dietitian pay relative to other clinical occupations over time, and none checked the 2012 forecast against later pay.

1.4 Purpose, research questions and hypothesis

The purpose of this study is to test whether dietitian pay rose as the 2012 forecast shortage would predict, and to separate need, interest and paid demand.

- **RQ1 (interest; descriptive).** How large are public spending on, use of and attention to nutrition, and how have they changed?
- **RQ2 (need; descriptive).** How has the population with conditions dietitians treat changed?
- **RQ3 (paid demand; descriptive).** What happened to dietitian employment, mean wage and wage bill, against the comparators, with Medicare's nutrition therapy benefit as context only?
- **RQ4 (documentary).** Was the "demand" the 2012 study forecast need, interest or paid demand?
- **RQ5 (the test).** Between 2012 and 2020, did dietitian relative employment and relative pay move as the forecast shortfall would predict?

Hypothesis H1 (RQ5). As written in the plan: "If a shortfall of about a quarter of demand developed, dietitian relative employment and relative pay rose together over 2012 to 2020." H1 is supported only if relative pay rose; flat or falling relative pay counts against it. The plan also fixed how H1 is read if RQ4 finds that the forecast's demand was need rather than paid demand: "a projected shortfall of need does not predict a rise in pay". Section 3.4 finds that condition does not apply. RQ1 to RQ4 have no hypothesis. A sixth question, whether other occupations' forecast shortages came with rising relative pay, is deferred to a later version.

1.5 Significance

Dietetics leaders and advocates, the author among them, cite demand when they argue for higher pay. This report shows which kinds of demand the public record shows rising, and whether any of them reached dietitian pay relative to comparable occupations. Employers and payers are the buyers of dietitians' time, so paid demand is the kind that bears on wages.

1.6 Scope and key terms

- **Demand and supply.** In their labor-economics sense: the quantity of labor employers will hire, or workers will offer, at each wage.
- **Need, interest and paid demand.** This report's own terms, defined by the measures in section 2.3. As the plan fixed, interest includes research output and page views.
- **Relative pay.** The dietitian annual mean wage divided by the median of the six comparators' annual mean wages.
- **Relative employment.** Dietitian employment growth minus the comparators' median growth.
- **Comparators.** The six clinical occupations of the series Introduction's Exhibit B1: physical therapists, registered nurses, occupational therapists, speech-language pathologists, chiropractors and respiratory therapists.
- **Dietitians and nutritionists.** Standard Occupational Classification (SOC) 29-1031, which includes nutritionists without the credential.

2. Methods

2.1 Design and reporting

An analytic observational study at the occupation level, with descriptive measures, reported with reference to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guideline where it applies. The plan fixed every measure, comparison, interval method and verdict rule before any Report 9 outcome data were pulled. It was frozen on September 30, 2026, at 01:37 UTC and timestamped by the FreeTSA time-stamping authority at 01:37:58 GMT (Appendix A).

The plan also records what had already been seen: the May 2023 and May 2025 wages, including the rise in the dietitian-to-physical-therapist ratio that Report 4 reports; the May 2015 and May 2025 dietitian mean wages in Report 6; the dietitian employment counts for May 2019 and May 2025, in Report 1 (see the note on the plan in Appendix A); the author's companion analysis of the long-run divergence of dietitian pay from peer professions since the mid-1980s, cited in Report 8, the likeliest place he could have seen the series; and the national files for May 2015, 2019, 2023, 2024 and 2025, already on disk. The author may also have seen the 2012 to 2020 relative-wage series; he could not rule it out. H1 is therefore reported as a check on data the author may have seen, not a clean test.

2.2 Data

- **Wages and employment.** Bureau of Labor Statistics Occupational Employment and Wage Statistics, national estimates, May 2012 to May 2025, from the Internet Archive's captures of bls.gov where not already held (Appendix B).[17] Annual wages assume a full-time, year-round schedule of 2,080 hours, so they are pay rates rather than a person's earnings. Each May estimate pools six semiannual panels collected over three years; the May 2020 estimates include one panel collected during the pandemic, and a new estimation method began with May 2021, after the H1 endpoints.
- **Prices.** The Consumer Price Index for All Urban Consumers, annual averages, as in Report 6.[18] The 2025 annual average rests on the eleven monthly indexes the Bureau published for that year; no October 2025 index was published.
- **Household spending.** The Bureau's Consumer Expenditure Survey, mean annual expenditure per consumer unit, all consumer units.[19]
- **Need and supplement use.** National Center for Health Statistics (NCHS) data briefs on supplement use, obesity and diabetes, an NCHS Health E-Stat on obesity, and the Centers for Disease Control and Prevention's (CDC) Kidney Disease Surveillance System, each read on September 30, 2026.[20-24]
- **Research output and attention.** PubMed record counts through the National Library of Medicine's E-utilities, and English Wikipedia page views through the Wikimedia pageviews interface, both on September 30, 2026.[25,26]
- **Medicare.** Report 3's published series (version 1.0), with no new pull.[27]
- **The 2012 forecast.** The full text of Hooker and colleagues, read on September 30, 2026, in the copy of the 2012 supplement posted by the Commission on Dietetic Registration.[3]

2.3 Measures

Paid work is measured by each occupation's employment, annual mean wage and wage bill (employment times mean wage), nominal and in 2025 dollars. These are market outcomes, where supply and demand meet, so they cannot by themselves separate demand from supply. **Interest** is measured, as the plan fixed, by household spending on nonprescription vitamins, the share of adults using any dietary supplement, PubMed records per year for fixed queries, one per field, and English Wikipedia page views for paired articles; section 3.1 summarizes the last two and Appendix C gives them in full. **Need** is measured by national prevalence among adults of obesity, total diabetes and chronic kidney disease stages 1 to 4; the kidney figure is crude prevalence, derived by summing the published stage estimates. Appendix A gives the exact queries and titles.

2.4 Analysis

H1 compares May 2012 with May 2020. Relative pay is the dietitian annual mean wage over the comparator median, where the median of six is the mean of the third and fourth values. The change is 100 times the difference in that ratio, in points. Relative employment is the dietitian's employment growth minus the comparators' median growth, in points.

Intervals come from 10,000 simulated draws, seed 20260930. Each occupation's published mean wage and employment is drawn from a normal distribution with the survey's published relative standard error, independently across occupations and years. May 2012 and May 2020 estimates share no sample panels. The 95 percent interval is the middle 95 percent of the draws. A change "rose" if its interval lies above zero, "fell" if below, and is "flat", not measurably changed, if it includes zero.

Four sensitivity checks were fixed in advance. They are reported and never used for the verdict. They use the median wage in place of the mean, each comparator separately, an employment-weighted comparator mean, and the slope of relative pay over the nine May releases from 2012 to 2020. A relative test detects only a shortage that raised dietitian pay more than the comparators'. After the review, descriptive checks were added, among them leaving out one comparator at a time, summaries that do not depend on the median, the change to May 2019, correlated errors and broader benchmarks (Appendix A). They test nothing.

Descriptive measures are reported as published, untested.

2.5 Verification

A validity gate tests each number in the text, tables and appendices, other than years, dates, times, labels and codes. It passes a number if it equals some value in the deposited results or a registered constant, whether quoted from a source or set by the design, and it does not scan the reference list, figure legends or alt text. It also checks the front matter, references and house style, and negative controls plant errors to show that it catches

them. The code, the derived tables, the plan and its timestamp, and the verification sheet are deposited (Data availability).

2.6 Ethics

The study used only published aggregate statistics and involved no human participants, so institutional review board review was not required.

3. Results

3.1 RQ1: interest

Spending on nutrition products and supplement use rose. Mean household spending on nonprescription vitamins was $51 in 2012 and $131 in 2022, a rise of 101.5 percent in 2025 dollars, against 29.2 percent for household health care spending. Vitamins went from 1.43 to 2.24 percent of household health spending. The series jumps 44 percent in nominal dollars from 2016 to 2017, and the series used here, from the Bureau's public data interface, carries no standard error. From 2023 it publishes a redefined line, vitamins and supplements, at $110 in 2023 and $134 in 2024; the two lines are not joined (Table 3).

Adult use of any dietary supplement in the past 30 days rose from 53.8 percent in 2013 to 2014 to 60.2 percent in August 2021 to August 2023. The middle cycles were 55.9 percent in 2015 to 2016 and 58.5 in 2017 to March 2020. The last cycle asked the questions in a telephone dietary interview rather than in the home interview, a change NCHS notes.[20]

The other two measures of interest did not rise with these: dietetics' share of all PubMed records fell from 0.35 to 0.23 percent between 2012 and 2024, and page views fell for every Wikipedia article with a full series from 2016 to 2025. Both reflect indexing and how people reach Wikipedia as much as interest (Appendix C).

3.2 RQ2: need

The prevalence of obesity and diabetes was higher in the latest survey cycle than in 2011 to 2012; for diabetes, the published intervals of the two cycles overlap. Age-adjusted obesity among adults was 34.9 percent (standard error 1.4) in 2011 to 2012, 37.7 in 2013 to 2014, 39.6 in 2015 to 2016, 42.4 in 2017 to 2018 and 40.3 (standard error 1.9) in August 2021 to August 2023.[21] NCHS reports no significant change from 2013 to 2014 through August 2021 to August 2023.[22] Age-adjusted total diabetes was 12.5 percent in 2011 to 2012, 13.0 in 2013 to 2014, 14.9 in 2015 to 2016, 14.8 in 2017 to March 2020 and 14.3 in August 2021 to August 2023, with 95 percent confidence intervals of 9.9 to 15.5 for the first and 12.1 to 16.7 for the last.[23] NCHS reports a rise from 1999 to 2000 through August 2021 to August 2023 and no significant difference between the last two cycles. Crude prevalence of chronic kidney disease stages 1 to 4, summed from the published stage estimates, was 12.3 percent in 2009 to 2012 and 13.7 percent in 2013 to 2016 and in 2017 to March 2020.[24]

3.3 RQ3: paid demand

Paid work for dietitians grew at a middle pace (Table 2, Figure 2). From May 2012 to May 2025, dietitian employment grew 33.2 percent, from 58,240 to 77,570, against a comparator median of 41.2 percent; dietitians ranked fifth of the seven occupations. The dietitian mean wage fell 2.1 percent in 2025 dollars, from $78,763 to $77,130, while the median of the comparators' changes was -4.6 percent, so dietitians ranked third. The dietitian wage bill grew 30.4 percent in 2025 dollars, against 33.4 percent, ranking fourth. Over the H1 window, May 2012 to May 2020, dietitian employment grew 13.9 percent, about 1.6 percent a year, against 17.7 percent for the comparator median; with dietetic technicians added, as the forecast counted them, jobs grew about 1.4 percent a year.

Relative pay moved within a narrow band. It was between 73.7 and 75.3 percent in every May release from 2012 to 2019, 76.8 in 2020, and between 76.2 and 77.9 from 2021 to 2025 (Figure 1). From May 2012 to May 2025 it rose 2.0 points (0.7 to 3.4), a descriptive change outside the tested window, across the survey's 2021 change of method; with each comparator left out in turn, that change ranged from -1.1 to 5.0 points (Appendix Table A2). Against broader benchmarks the dietitian mean wage lost ground: from 122.7 to 116.5 percent of the all-occupation mean between May 2012 and May 2019, and from 76.4 to 74.7 percent of the healthcare practitioner and technical group's mean between May 2012 and May 2020.

For context only, Medicare fee-for-service allowed charges for the nutrition therapy codes, summed over published cells, were $13,405,259 in 2025, a lower bound, 31.8 percent below their 2019 peak in constant 2025 dollars; Report 3 finds nothing in those series that supports an inference about demand or access.[27]

3.4 RQ4: what the 2012 forecast measured

The 2012 forecast's demand was a projection of service use anchored on the existing workforce. Its model assumed that in 2010 the supply of credentialed practitioners was in equilibrium with demand for dietetics services.[3] That demand covered services by all dietetics practitioners, credentialed or not; in its scenarios, the article puts credentialed practitioners' share of 2010 dietetics services at about 64 percent. Demand then grew with service-use rates by age from federal health care surveys, population projections, insurance expansion under the Affordable Care Act and income, and, for food and nutrition management and for consultation and business, with industry sales and payrolls. In all, demand grew by more than 3 percent a year, against 1.1 percent a year for credentialed supply. A search of its text found no dietitian wage or vacancy measure among the demand inputs.

The article calls its clinical projections "market-based demand", based on historical use of dietetics services, and none of its quantified demand drivers is a measure of prevalence.[3] In the plan's terms the forecast's demand was not need: it was closest to paid demand, counted as services used at past prices rather than as what employers pay. The plan's condition for a forecast of need therefore does not apply, and H1 is read as written. The

article's equilibrium assumption and its 64 percent credentialed share do not sit easily together; this report quotes both. The task force said that excess demand "may result in higher incomes during the next decade", and the article's authors wrote that higher earnings are "probable under increasing demand scenarios";[3] either is the prediction H1 checks.

3.5 RQ5: the test

The result counts against H1. The dietitian mean annual wage was 75.3 percent of the comparator median in May 2012 ($56,170 against $74,565) and 76.8 percent in May 2020 ($64,150 against $83,535). The change, 1.5 points, has a 95 percent interval of -0.4 to 3.4, so relative pay did not change measurably; the rule set in advance calls this flat (Table 1). Relative employment was also flat: dietitian employment grew 13.9 percent against the comparators' median of 17.7 percent, a difference of -3.8 points with an interval of -9.0 to 2.3. Because both measures were flat, the joint reading fixed in advance names no explanation. As point estimates, slower relative employment with a small relative pay gain is the pattern the plan assigns to supply falling with demand steady; neither can be told from zero.

The result is sensitive to which occupations form the comparison, and every measurable rise traces to chiropractors. From May 2012 to May 2020 the dietitian nominal mean wage grew 14.2 percent, against 13.0 to 14.8 percent for physical therapists, occupational therapists, speech-language pathologists and respiratory therapists, 17.8 percent for registered nurses and 5.4 percent for chiropractors. The middle pair of comparators was speech-language pathologists and occupational therapists in 2012, and speech-language pathologists and chiropractors in 2020. With each comparator left out in turn, a descriptive check added after review, the median of the other five gives one of two answers (Appendix Table A2). Leaving out registered nurses, speech-language pathologists or respiratory therapists makes chiropractors the 2020 median, and the change is 3.0 points, with the lower end of the interval at 0.1, which the rule would call a rise in relative pay. Leaving out physical therapists, occupational therapists or chiropractors gives -0.2 points, flat. On basic intervals, which suit these near-tied medians better, only two of the three sets rise. Summaries that do not depend on which comparator sits in the middle show no measurable change: the ratio to the comparators' geometric mean rose 0.7 points (-0.8 to 2.1). The six-comparator result, on the series' own set fixed before this report, is the test; the checks show how near the rule's threshold it lies.

Of the sensitivity checks fixed in advance, only the comparison with chiropractors alone shows a rise (Appendix Table A1). On median wages the ratio moved from 81.2 to 81.0 percent. Against an employment-weighted comparator mean it fell from 81.5 to 79.6 percent. Against registered nurses alone, relative pay fell (-2.5 points, -4.0 to -1.0). Against chiropractors it rose (5.9 points, 2.0 to 9.9). Against the other four it was flat. The slope across the nine May releases from 2012 to 2020 was 0.08 points a year.

4. Discussion

4.1 Principal findings

RQ5: on the comparison fixed in advance, relative pay did not change measurably from May 2012 to May 2020, which counts against H1; with three of the six comparators left out in turn, chiropractors became the median and the change would have counted as a rise. RQ4: the 2012 forecast projected service use, which it called market-based demand, with no dietitian wage or vacancy measure, so H1 is read as written; its task force said excess demand may result in higher incomes. RQ3: dietitians sat in the middle of the seven occupations on employment, real wage and wage bill. RQ2: obesity and diabetes prevalence were higher in the latest cycle than in 2011 to 2012, the diabetes difference within overlapping intervals, and kidney disease showed no clear change. RQ1: household vitamin spending and supplement use rose, while dietetics' share of research output and Wikipedia page views fell.

4.2 Comparison with prior research

The 2012 forecast and the companion reanalysis both pointed to supply lagging demand.[3,4] On the federal wage survey, relative pay did not rise measurably by 2020 on the comparison fixed in advance, as a shortage of paid labor would predict. Ratliff and colleagues found that registered nurses had the smallest real wage growth of the health care occupations they examined over 2012 to 2023.[13] Even so, dietitians lost ground against registered nurses over 2012 to 2020 here. The 2026 projections rest on a baseline gap that an employer survey informed but did not size.[6] This report measures neither shortage; it asks whether pay moved as one would predict. For scale, closing a gap of the forecast's size through pay alone would take a far larger relative rise than the 4.5 percent the interval allows, unless supply and demand were very elastic (Appendix C); Spetz and Given estimated that closing a projected nurse shortage would take inflation-adjusted wage growth of 3.2 to 3.8 percent a year.[28]

4.3 Alternative explanations

One explanation is that the shortfall never developed. Jobs in SOC 29-1031 grew about 1.6 percent a year over 2012 to 2020, or about 1.4 percent with dietetic technicians added, between the forecast's 1.1 percent for credentialed supply and its more than 3 percent for demand, which neither confirms nor rules out a shortfall; the counts also differ, jobs in an occupation code against credentialed practitioners, and registry counts were not set against the forecast's supply path. Demand may have grown less than projected: the forecast assumed insurance expansion under the Affordable Care Act, and in June 2012, after it was published, the Supreme Court made the law's Medicaid expansion optional for states.[29] Pointing the other way, a large majority of employers in the Commission's 2025 survey, five years after the test window, reported positions they were unable to fill.[6] A second explanation is a shortage that shows as vacancies and caseload rather than raises, the dynamic shortage Arrow and Capron described, in which pay follows rising demand only with a lag;[30] where employers set wages or payment is bundled, that would fit both flat relative pay and unfilled positions. A shortage shared with the comparators would not move relative pay, though the dietitian real mean wage rose only 1.3 percent over 2012 to 2020 and fell against all occupations through May 2019.

Other features of the market help explain why dietitian pay is low but would explain a flat relative path only if they changed over 2012 to 2020: employer wage-setting power, found in one hospital market for nurses[8] but little in nurses' relative wages across markets;[9,10] a rising share of women, associated with lower pay;[11] and licensing, associated with higher pay, which is separate from the registered dietitian credential, a private certification.[12] None of these, nor unionization, which the plan listed, was measured over the window, and how payment rules treat inpatient nutrition care was not examined. The design cannot separate these explanations.

May 2020 is the highest relative pay in the H1 window, and the whole rise arrives in that release. In May 2019, relative pay was below its 2012 level on the six-comparator median (-0.7 points, -2.3 to 1.3) and on every leave-one-out set (Appendix Table A1), and the slope through May 2019 was -0.11 points a year. The May 2020 estimates include one panel collected during the pandemic, and response rates for the November 2019 and May 2020 panels were lower in some areas.[17]

4.4 Implications

The kind of demand cited matters. On this evidence, dietitian pay did not rise measurably relative to comparable occupations from 2012 to 2020, years in which household vitamin spending and supplement use rose. For workforce planning, the 2012 forecast projected service use, not what employers would pay, and the higher incomes the article said may result did not appear in relative pay on the comparison fixed here. A measure of paid demand, such as vacancies, hiring or billed services, could be tested against pay.

4.5 Limitations

The federal wage survey is not built for comparisons over time, and the Bureau of Labor Statistics does not encourage the use of OEWS data for time-series analysis. The verdict depends on the comparator set (section 3.5). SOC 29-1031 is not the credential: registered dietitians working as managers or faculty are coded elsewhere, and dietetic technicians were in the forecast but not in the test. If uncredentialed nutritionist jobs grew as a share of the code, or registered dietitians moved into manager codes, the code's mean could misstate registered dietitians' pay growth in either direction; the Academy's compensation surveys, a credential-specific source, were not used as a cross-check. The survey also leaves out self-employment, which Report 10 shows some dietitians hold as a second job.[31] The flat verdict rests on the plan's assumption that the occupations' sampling errors are independent within a year. They share establishments, so the errors are probably positively correlated, which would narrow the intervals: at a correlation of 0.5 the interval would run from -0.1 to 3.1, at 0.7 its lower end is about zero, and at 0.9 it is above zero (Appendix Table A1). The survey's wages also leave out overtime, shift differentials and nonproduction bonuses, which can move before base pay in a shortage. The interval rules out a relative rise of more than 3.4 points, about 4.5 percent of the 2012 ratio; a rise of 2.7 points would have been detected four times in five. The author may have seen the relative-wage series before the plan was frozen. Appendix C lists further limitations.

4.6 What would settle the open question

A direct measure of paid demand would settle more: vacancy and hiring rates, time-to-fill for dietitian positions and billed dietitian services across payers, each tracked over time against comparable occupations. The 2026 projections could be checked the same way as their years come due.

5. Conclusion

On the comparison fixed in advance, the dietitian shortage forecast in 2012 did not appear as measurably rising relative pay by 2020. The dietitian mean wage stayed at about three-quarters of the comparator median and grew about as fast as four comparators, more slowly than registered nurses' and faster than chiropractors'. The result lies near the rule's threshold: it would have counted as a rise when chiropractors became the median or at a within-year error correlation of 0.9, and its lower end is about zero at 0.7, though summaries that do not depend on the median show no change. The forecast projected service use, and a search of its text found no dietitian wage input; the higher incomes the article said may result did not appear in relative pay by 2020. The design cannot separate a shortage that never developed from one that did not reach pay.

Data availability

Every source used in this report is public. The wage survey files are Bureau of Labor Statistics publications. The nine retrieved for this report came from the Internet Archive's captures of bls.gov, with each capture's address, retrieval time and SHA-256 hash recorded; the five held from earlier reports of this series carry their capture times in their file names. The deposit carries the fourteen wage files, the code that reads them and runs the PubMed, Wikipedia and OpenAlex searches, the derived series, the results, the figure code, the frozen plan and its timestamp, this report's text and the verification sheet, with a SHA-256 hash for every file except the manifest that lists them, at 10.5281/zenodo.23569515 (version 1.1; version 1.0 10.5281/zenodo.23061152; concept DOI 10.5281/zenodo.23061150). The price-index data for 2012 to 2021 are the output of the one logged request to the Bureau's data service that `pull_descriptive.py` makes: the script asked for 2012 to 2025, the Bureau cut the request to ten years, and the file is named for the years it holds. No code or request log is deposited for the price index for 2022 to 2025, the expenditure series, the NCHS and CDC values (read in a browser) or the Crossref reference checks; their results are, with the times they were read. The NCHS and CDC tables and the 2012 article are cited, not redistributed.

Dates and times are in Coordinated Universal Time. Sources revised on a schedule are identified by the date they were read: September 30, 2026, for the NCHS and CDC pages, the price index, the expenditure series, PubMed and the Wikipedia page views; September 15, 2026, for the Mathematica report; and, for the wage files, the capture time in each file name and the retrieval time listed in the retrieval table (Appendix B).

How this report was checked

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed. AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate tested each number in the text, tables and appendices, other than years, dates, times, labels and codes. It passed a number if it equaled some value in the deposited files or a registered constant, whether quoted from a named source or set by the design. It did not scan the reference list, figure legends or alt text. Altogether it ran 380 checks on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten. Appendix A sets out the plan, its timestamp and the analysis in detail.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figures and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

Corrections

Corrections to this report are dated, labelled and appended below, never made silently. Each correction names what was wrong, where the wrong figure came from, who identified it, and whether the argument survives. The version history for the series is in the series Introduction.

No corrections have been issued to version 1.0 as of the release date.

Correction, version 1.1, October 22, 2026. The report said that the Bureau of Labor Statistics "cautions against" comparing the wage survey over time. This was in section 4.5 and in the source line printed inside Figure 1. It did not match the Bureau's words. The Bureau's frequently asked questions say that the Bureau "does not encourage the use of OEWS data for time-series analysis". They add that users who make such comparisons are cautioned to note the comparability issues and data limitations. The same page says that the survey methodology is "less useful for looking at changes over time". The text and the figure's source line now use the Bureau's words. The Bureau's page refuses scripted requests, so the wording was read in Internet Archive captures of September 3 and 21, 2026. An AI fact-check that the author directed found the error on September 30, 2026. No finding changes, and the argument is unaffected.

Correction, version 1.1, October 22, 2026. The report described its data record inexactly in eight places. It said the validity gate matched every number in the text, other than years and identifiers, to a deposited value or a registered constant. The gate skips dates, times, labels and codes as well as years. Its test is whether each number equals some deposited value or registered constant, not whether it is the value for its sentence. The key figures are also checked one by one. It does not scan the reference list, figure legends or alt text. It said the deposit held the code that reads every source, and a request log for the descriptive pull. The code and the logged request cover the price index for 2012 to 2021 only. No code or request log is deposited for the price index for 2022 to 2025, the expenditure series, the NCHS and CDC values or the Crossref checks. It described the wage files' retrieval records incompletely. The May 2019 file's record is in Report 1's data record. The May 2024 file had none in this record. Three files had a time only. It called Report 1's two employment counts a series. Version 1.1 of the data record adds the retrieval records that exist, a note on the plan, a corrected timestamp note, the gate's own record of its last run, the record of its negative controls and a corrected README. The text now says what the record holds. A read-only AI audit that the author directed found these errors on October 2, 2026. No finding changes, and the argument is unaffected.

Updated October 22, 2026: the 0.7 row of Appendix Table A1 (0.01 to 3.00) is one random seed's result. Across 200 other seeds the lower end of its interval averages about zero. The text now says "about zero" where it said "just above zero". Sentences that said the 2012 task force "expected" higher incomes now follow the article's own words. The article's 78 percent figure for 2020 is given beside its 75 percent figure, and one sum in Appendix C is now about 6.5, not about 6.4. The declaration of interests was updated and now discloses more. Its last clause now says that no product or service of Vitae Arete LLC is described or cited in the analysis or findings. It also now discloses his Academy workgroup seat. The statement on the use of artificial intelligence now includes searching and screening the literature. The status note and the section on how the report was checked now print 380 checks, up from 328. None of this changes a finding.

Glossary

- **Age-adjusted.** Standardized to a fixed population age mix, so that survey cycles can be compared as the population ages.
- **Comparator median.** The median of the six comparator occupations' values in a year; with six values, the mean of the third and fourth.
- **Flat.** The rule set in advance for a change whose 95 percent interval includes zero: not measurably changed.
- **Interest.** In this report, public spending on, use of and attention to nutrition, with research output, measured as in section 2.3.
- **Leave-one-out.** A check that drops one comparator at a time and takes the median of the other five.
- **Need.** In this report, the prevalence of conditions a dietitian treats.
- **Paid demand.** In this report, what employers and payers pay for dietitians' time, observed through employment, wages and wage bill.
- **Relative standard error.** The standard error of an estimate as a percentage of the estimate, published by the wage survey for each occupation.
- **Wage bill.** Employment times mean annual wage.

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Tables

Table 1. H1: dietitian pay and employment relative to six clinical occupations, May 2012 and May 2020.

Measure	May 2012	May 2020	Change, points (95 percent interval)	State
Relative pay: dietitian mean wage as a percentage of the comparator median	75.3	76.8	1.5 (-0.4 to 3.4)	Flat
Dietitian mean annual wage	$56,170	$64,150	not applicable	not applicable
Comparator median mean annual wage	$74,565	$83,535	not applicable	not applicable

Measure	May 2012	May 2020	Change, points (95 percent interval)	State
Relative employment: dietitian growth minus comparator median growth, 2012 to 2020	not applicable	not applicable	-3.8 (-9.0 to 2.3)	Flat

Occupational Employment and Wage Statistics national estimates. Intervals from 10,000 simulated draws using the published relative standard errors (seed 20260930). Changes are computed from unrounded values. H1 is supported only if relative pay rose; flat relative pay counts against it. The comparator median's middle pair was speech-language pathologists and occupational therapists in 2012, and speech-language pathologists and chiropractors in 2020.

Table 2. Employment and mean annual wage, May 2012, May 2020 and May 2025, seven occupations.

Occupation (SOC)	Employment 2012	Employment 2020	Employment 2025	Mean wage 2012	Mean wage 2020	Mean wage 2025
Dietitians and nutritionists (29-1031)	58,240	66,330	77,570	$56,170	$64,150	$77,130
Physical therapists (29-1123)	191,460	220,870	267,330	$81,110	$91,680	$105,280
Registered nurses (29-1141)	2,633,980	2,986,500	3,379,720	$67,930	$80,010	$101,420
Occupational therapists (29-1122)	105,540	126,610	162,450	$76,400	$87,480	$101,280
Speech-language pathologists (29-1127)	121,690	148,450	183,390	$72,730	$83,240	$98,170
Chiropractors (29-1011)	27,740	34,760	39,630	$79,550	$83,830	$90,520
Respiratory therapists (29-1126)	116,960	131,890	139,790	$57,200	$65,640	$87,300

Nominal dollars, as published. National, all industries. SOC: Standard Occupational Classification.

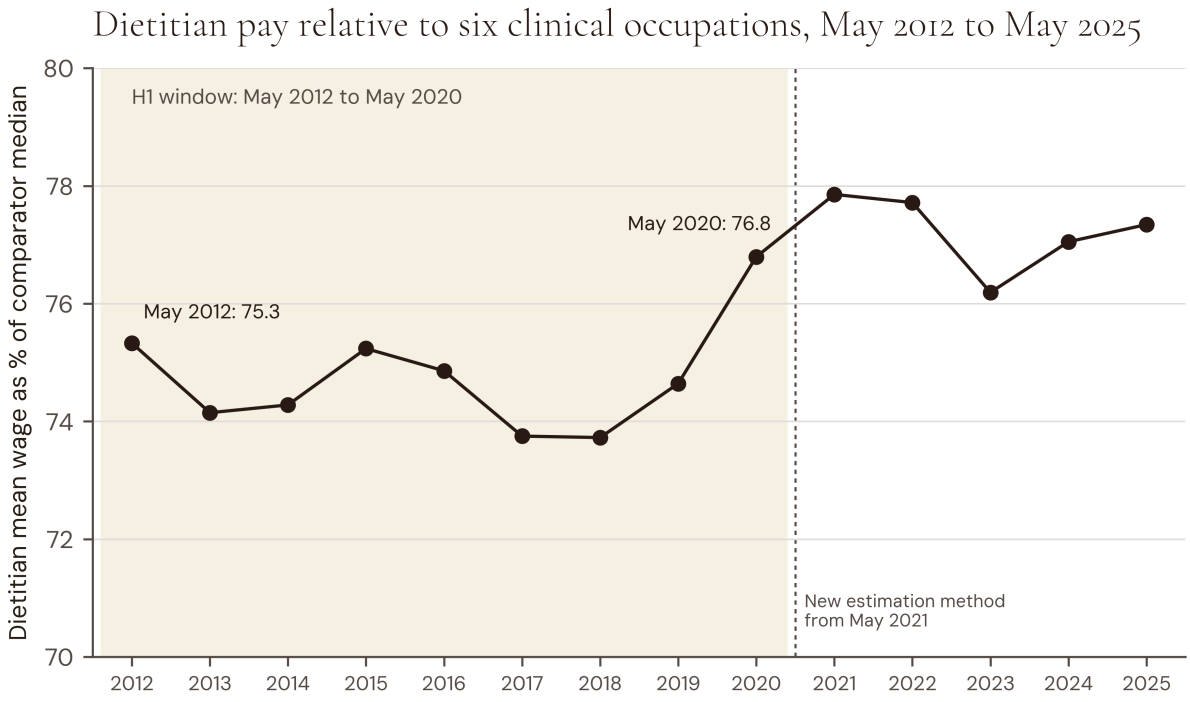
Table 3. Need and interest measures.

Measure	Earlier value	Later value	Source
Total diabetes, adults, age-adjusted	12.5 percent (9.9 to 15.5), 2011 to 2012	14.3 percent (12.1 to 16.7), August 2021 to August 2023	NCHS Data Brief 516
Obesity, adults, age-adjusted	34.9 percent (2011 to 2012)	40.3 percent (August 2021 to August 2023)	NCHS Health E-Stat 111
Chronic kidney disease stages 1 to 4, adults, crude	12.3 percent (2009 to 2012)	13.7 percent (2017 to March 2020)	CDC Kidney Disease Surveillance System
Any dietary supplement in past 30 days, adults	53.8 percent (2013 to 2014)	60.2 percent (August 2021 to August 2023)	NCHS Data Brief 561
Nonprescription vitamins, mean household spending	$51 (2012)	$131 (2022)	Consumer Expenditure Survey
Vitamins and supplements (redefined line)	$110 (2023)	$134 (2024)	Consumer Expenditure Survey

Each value as published, with its survey period; diabetes with its 95 percent confidence interval. The kidney disease figure sums the published crude estimates for stages 1 to 4. NCHS: National Center for Health Statistics; CDC: Centers for Disease Control and Prevention. Supplement use in the latest cycle was collected by a changed method, as the source notes.

Figure legends

Figure 1. Dietitian pay relative to six clinical occupations, May 2012 to May 2025. The dietitian annual mean wage as a percentage of the median of the six comparators' annual mean wages, by May release. The shaded window is H1's, May 2012 to May 2020; the dotted line marks the survey's change of estimation method with May 2021. Source and basis are printed inside the image.

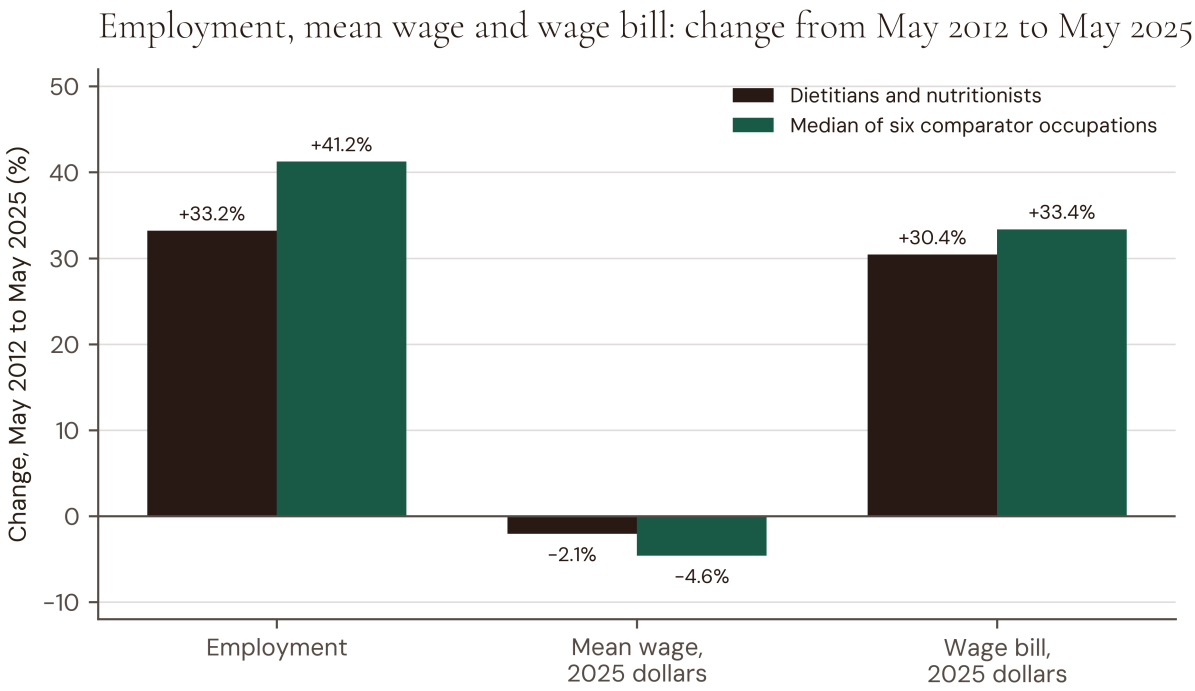


Source: US Bureau of Labor Statistics, Occupational Employment and Wage Statistics, national estimates, May 2012 to May 2025 (files from the Internet Archive's captures of bls.gov). Dietitians and nutritionists (SOC 29-1031) annual mean wage as a percentage of the median of six occupations' annual mean wages: physical therapists, registered nurses, occupational therapists, speech-language pathologists, chiropractors and respiratory therapists. Nominal wages; the ratio needs no deflator. The Bureau does not encourage the use of OEWS data for time-series analysis; its estimation method changed with May 2021 (dotted line). H1 compares May 2012 with May 2020 only.

Figure 1

Alt text: The dietitian mean wage stayed between about 74 and 75 percent of the comparator median from May 2012 to May 2019, reached about 77 percent in May 2020, and stayed between about 76 and 78 percent through May 2025.

Figure 2. Employment, mean wage and wage bill: change from May 2012 to May 2025, dietitians and the median of six comparator occupations. Mean wage and wage bill in 2025 dollars. Source and basis are printed inside the image.



Source: US Bureau of Labor Statistics, Occupational Employment and Wage Statistics, national estimates, May 2012 and May 2025; Consumer Price Index for All Urban Consumers (CUUR0000SA0), annual averages; the 2025 average rests on eleven months, as no October 2025 index was published. Wage bill: employment times mean annual wage. The comparator bar is the median of the six occupations' changes (physical therapists, registered nurses, occupational therapists, speech-language pathologists, chiropractors, respiratory therapists). Descriptive; no test.

Figure 2

Alt text: From May 2012 to May 2025, dietitian employment grew about 33 percent against about 41 percent for the comparators' median, the dietitian mean wage fell about 2 percent in real terms against about 5 percent, and the dietitian wage bill grew about 30 percent against about 33 percent.

Appendix A. Methods and verification in detail

The plan and its timestamp. The plan and argument sheet was drafted on the evening of September 29, 2026, US Eastern time. It was frozen on September 30, 2026, at 01:37 UTC, before any of the May 2012, 2013, 2014, 2016, 2017, 2018, 2020, 2021 or 2022 wage files had been downloaded and before any descriptive series was pulled. Its SHA-256 hash was timestamped by FreeTSA at 01:37:58 GMT (serial 0x08AA7281). The token verifies with openssl against FreeTSA's published certificates.

Queries and titles. The PubMed queries combined Medical Subject Headings (MeSH), each confirmed to exist before counting. Dietetics was "Nutrition Therapy", "Dietetics" or "Nutritionists"; nutrition broadly, "Diet, Food, and Nutrition". Physical therapy was "Physical Therapy Modalities", "Physical Therapists" or "Physical Therapy Specialty"; occupational therapy, "Occupational Therapy" or "Occupational Therapists". Speech-language pathology was "Speech-Language Pathology" or "Speech Therapy"; respiratory therapy, "Respiratory Therapy". Nursing was "Nursing" or "Nurses"; chiropractic, "Chiropractic" or "Manipulation, Chiropractic". All sixteen headings existed. The Wikipedia articles were Nutrition, Dietitian and Dietary supplement, paired with Physical therapy, Occupational therapy, Speech-language pathology, Respiratory therapist, Nursing and Chiropractic.

Table A1. H1 sensitivity checks and descriptive additions, relative pay.

Check	Start	End	Change, points (95 percent interval)
S1. Median wage in place of the mean, 2012 to 2020	81.2	81.0	-0.2 (no interval published)
S2. Against physical therapists, 2012 to 2020	69.3	70.0	0.7 (-0.5 to 2.0)
S2. Against registered nurses, 2012 to 2020	82.7	80.2	-2.5 (-4.0 to -1.0)
S2. Against occupational therapists, 2012 to 2020	73.5	73.3	-0.2 (-1.6 to 1.2)
S2. Against speech-language pathologists, 2012 to 2020	77.2	77.1	-0.2 (-1.9 to 1.5)
S2. Against chiropractors, 2012 to 2020	70.6	76.5	5.9 (2.0 to 9.9)
S2. Against respiratory therapists, 2012 to 2020	98.2	97.7	-0.5 (-2.2 to 1.3)

Check	Start	End	Change, points (95 percent interval)
S3. Employment-weighted comparator mean, 2012 to 2020	81.5	79.6	-2.0 (no interval)
S4. Slope over nine May releases, 2012 to 2020, points a year	not applicable	not applicable	0.08 (no interval; adjacent releases share panels)
Added after the review: all six comparators, 2012 to 2025	75.3	77.3	2.0 (0.7 to 3.4)
Added after the review: all six comparators, May 2012 to May 2019	75.3	74.6	-0.7 (-2.3 to 1.3)
Added after the review: leave-one-out medians, May 2012 to May 2019	not applicable	not applicable	-1.2 or -0.2 (no interval)
Added after the review: H1 change, within-year error correlation 0.3	75.3	76.8	1.5 (-0.2 to 3.3)
Added after the review: H1 change, within-year error correlation 0.5	75.3	76.8	1.5 (-0.1 to 3.1)
Added after the review: H1 change, within-year error correlation 0.7	75.3	76.8	1.5 (0.01 to 3.00)
Added after the review: H1 change, within-year error correlation 0.9	75.3	76.8	1.5 (0.2 to 2.9)
Added after the review: ratio to the comparators' geometric mean, 2012 to 2020	78.0	78.7	0.7 (-0.8 to 2.1)
Added after the review: mean of the six pairwise log changes, percent, 2012 to 2020	not applicable	not applicable	0.8 (-1.0 to 2.7)
Added after the review: median of the six pairwise log changes, percent, 2012 to 2020	not applicable	not applicable	-0.2 (-1.8 to 1.6)
Added after the review: dietitian mean wage as a percentage of the all-occupation mean, May 2012 to May 2019	122.7	116.5	-6.1 (no interval)
Added after the review: dietitian mean wage as a percentage of the healthcare practitioner and technical group's mean, May 2012 to May 2020	76.4	74.7	-1.7 (no interval)

Changes are computed from unrounded values, so a change can differ by 0.1 from the difference of the rounded start and end (S3). The correlation rows draw all seven occupations' errors with the stated within-year correlation, years independent, same seed (`analysis/A05_results/r9_posthoc.py`). Each of those rows is one run of that seed. The lower end of the 0.7 row, 0.01, belongs to the seed: across 200 other seeds it averages -0.004 (range -0.064 to 0.047) and is above zero in 91; at 0.9 it is above zero in all 200 (0.097 to 0.186), and at 0.5 below zero in all 200 (-0.203 to -0.078). Those 200-seed figures come from `analysis/A05_results/r9_corr_seed_check.py`, which version 1.1 of the data record adds. The geometric-mean, pairwise and benchmark rows, the May 2019 interval and the power figures come from `analysis/A05_results/r9_posthoc_round2.py`; the all-occupation benchmark stops at May 2019 because the May 2020 all-occupation mean rose with the pandemic's loss of lower-paid jobs.

Table A2. Relative pay against the median of five comparators, each comparator left out in turn (added after review; descriptive).

Comparator left out	May 2012	May 2020	Change 2012 to 2020, points (95 percent interval)	State	Change 2012 to 2025, points (95 percent interval)	State
Physical therapists	77.2	77.1	-0.2 (-1.7 to 2.4)	Flat	1.3 (-0.2 to 2.9)	Flat
Registered nurses	73.5	76.5	3.0 (0.1 to 4.7)	Rose	5.0 (3.6 to 6.5)	Rose
Occupational therapists	77.2	77.1	-0.2 (-1.7 to 2.4)	Flat	1.3 (-0.2 to 2.9)	Flat
Speech-language pathologists	73.5	76.5	3.0 (0.1 to 6.0)	Rose	2.6 (1.3 to 4.1)	Rose
Chiropractors	77.2	77.1	-0.2 (-1.9 to 1.5)	Flat	-1.1 (-2.5 to 0.5)	Flat
Respiratory therapists	73.5	76.5	3.0 (0.1 to 4.7)	Rose	2.6 (1.3 to 4.1)	Rose

Same simulation and seed as H1, with a fresh generator for each set (`analysis/A05_results/r9_posthoc.py`). Values nearly tie in a median of five, so the percentile intervals are off-centre: on basic intervals the speech-language-pathologist set is flat (-0.03 to 5.9) and the registered-nurse and respiratory-therapist sets still rise (1.3 to 5.9). With five comparators the median is the third value. Leaving out any one of the three higher-paid comparators leaves speech-language pathologists as the median in both years; leaving out any one of the three lower-paid comparators moves the median from occupational therapists in 2012 to chiropractors in 2020.

Deviations from the plan. First, the plan said the four frame papers it named (Katz and Murphy; Staiger, Spetz and Phibbs; Levanon, England and Allison; Kleiner and Krueger) would be read in full before citing. They were read at the level of their published abstracts, and each is cited only for what its abstract states. Second, the plan listed research output and page views with the other interest measures in the results. After review, their full series were moved to Appendix C with their caveats, because both are prone to artefacts; they remain measures of interest, and section 3.1 summarizes them. Third, the plan said that Report 1, Appendix L prints the dietitian employment series from May 2019, so that the May 2020 employment count was already in print. Appendix L prints two counts, 67,670 for May 2019 and 77,570 for May 2025, and a search of the text of Report 1, version 1.0, found no May 2020 count. The plan is frozen and stays as written; a dated note on this statement is in the data record (version 1.1).

Changes after review. The first draft took obesity from NCHS Data Brief 508, whose series begins in 2013 to 2014; the plan asked for the latest NCHS publication giving adult obesity from 2011 to 2012, which is Health E-Stat 111, and the text now uses it. The three pay records the plan named for screening were screened after review; two have no abstract in PubMed. A fourth record, which a reviewer found, was also screened (section 1.3). A first revision classed the forecast's demand as need and applied the plan's condition for that case; the second fact-check showed the article calls its projections market-based demand from historical service use, and the classification was corrected.

Appendix B. Data

The deposit holds: the fourteen national wage files and the reader for them, with the source address, retrieval time and SHA-256 hash of each of the nine retrieved for this report, and the Internet Archive's capture index for the May 2013 file (for the five held from earlier reports, see the next paragraph); the simulation and H1 code with its output; the pull of the PubMed counts, the Wikipedia page views and the price index for 2012 to 2021, with its request log; the price index for 2022 to 2025 and the expenditure series as retrieved, with their read times and without a request log; the need and interest source records with the figures read from each; the results scripts and their outputs, including the descriptive additions made after the review; the figure code; the frozen plan and its timestamp token, with a dated note on one statement in the plan (added in version 1.1 of the data record); this report's text; and the verification sheet. The author's notes on the 2012 article, and the abstracts read in the search, are not deposited, because they quote copyrighted text.

The nine wage files not already held were retrieved on September 30, 2026, from the Internet Archive's captures of the bls.gov originals, with each capture's address, retrieval time and SHA-256 hash recorded; the five held from earlier reports carry their capture times in their file names. Their retrieval records are partial: a time for May 2015 and May 2025; a time and an address for May 2023 and May 2024 (two headers files added in version 1.1 of the data record hold the addresses and, for May 2024, the time); and, for May 2019, the address, time and hash in Report 1's data record (concept DOI 10.5281/zenodo.21792265, file R1_data/T08/DOWNLOADS.csv, which is in version 2.3.0 and in version 2.4.0). `analysis/A01_oews/RETRIEVAL_RECORDS_v1.1.csv`, also added in version 1.1, lists all fourteen files, and the Mathematica report, which is not deposited, with what was recorded for each. The May 2013 file used has the same content digest as every capture of that file from July 2014 onward except one, from August 2018. All seven occupations carry the same code and title in all fourteen files. Older panels' wages are adjusted to each reference period. The May 2019 and May 2020 estimates used a hybrid of the 2010 and 2018 occupation classifications, and the model-based estimation method that began with May 2021 falls within the 2012 to 2025 series but after the H1 endpoints.

Appendix C. Detail moved from the main text

The search. PubMed, September 30, 2026. P1: dietitians, dietetics or nutritionists with wages, salaries, compensation or earnings, and with demand, supply, shortage or labor market, 9 records. P2: dietitians or dietetics with workforce, and with demand, supply, projections or shortage, 37 records. P3: dietitians or dietetics with wages, salaries, compensation or pay, 164 records. Every title was read. P4: allied health or health occupations with relative wage or labor demand terms, 2 records, both read on their abstracts, among them Walton and colleagues. OpenAlex, the same day: O1 to O4 returned 621, 199, 205 and 17,067 records, and the top 50 of each were screened on titles. The thirteen closest PubMed records, all nine from P1, two from P2 and both from P4, were screened on their abstracts. After review, the three pay records the plan named were screened: Loushine and Vaden's comparison of entry-level salaries, and the Academy's compensation survey summaries for 2011 and 2024, which have no abstract in PubMed and on their titles report pay within the profession. So was Karni and Seibert's survey, a P3 record a reviewer flagged. Among the records screened, apart from Walton and colleagues, none sets a measure of demand against relative pay over time.

Research output. PubMed records indexed to dietetics rose 5.6 percent from 2012 to 2024, from 3,763 to 3,974, while all PubMed records rose 59.6 percent. The dietetics count was 5,066 in 2020 and 3,231 in 2023, a fall that may reflect changes in indexing. The paired fields rose 46.2 percent (physical therapy), 48.7 percent (occupational therapy), 64.2 percent (speech-language pathology) and 27.6 percent (respiratory therapy) over 2012 to 2024, while nursing fell 27.0 percent and chiropractic 23.9 percent. Records on nutrition broadly rose 29.4 percent. Dietetics fell from 0.35 to 0.23 percent of all records. The 2025 count for dietetics, still being indexed, was 4,458.

Attention. From 2016 to 2025, Wikipedia page views fell 77.9 percent for Nutrition, 69.5 percent for Dietitian and 43.4 percent for Dietary supplement. They fell 63.2 percent for Physical therapy, 72.7 for Occupational therapy, 69.5 for Respiratory therapist, 76.3 for Nursing and 21.1 for Chiropractic. The speech-language pathology article moved to a new title in April 2021, so no change is computed for it.

Scale. A rough textbook benchmark: closing a gap of the forecast's size, supply meeting 75 percent of demand, through pay alone would take a relative rise of about 33 percent if the supply and demand elasticities summed to one, 15 percent if they summed to two and 7.5 percent at four. The H1 interval rules out a rise of more than about 4.5 percent of the 2012 ratio, which only a sum above about 6.5 would fit (about 5.6 at 78 percent met). At the article's baseline figure of 78 percent met, the same three rises would be about 28, 13 and 6.4 percent, and the interval's ceiling of about 4.5 percent stays below all three. The benchmark assumes constant elasticities and a single market; it is context, not a test.

Further limitations. The comparator set is the series' own, chosen before this report; a different set would give a different median, as the leave-one-out check shows (Appendix Table A2). The published relative standard errors cover sampling error only. The survey's wages exclude overtime pay, shift differentials and nonproduction bonuses.[17] Older panels' wages are adjusted to each reference period, which can damp relative change. The survey covers only chiropractors paid a wage or salary. Occupation means mix industry, region and experience, and no adjustment was made for shifts among them. PubMed indexing changes over time, the Wikipedia series reflects how people reach Wikipedia, and the vitamin line was redefined in 2023. Medicare figures describe fee-for-service claims only. The 2012 forecast counted registered dietitians and dietetic technicians together, while the wage survey counts jobs in one occupation code.

Report 10

How many dietitians hold a second job? Multiple jobholding among US dietitians and nutritionists, January 2020 to August 2026

The Dietetics Workforce Reports, Report 10, version 1.1 *A research report series from Vitae Arete LLC*

These reports are self-published and are not journal publications; see the status note.

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Released. September 30, 2026, version 1.0. Version 1.1, October 22, 2026, appends dated corrections (see Corrections); no number or finding changed.

Suggested citation. Fee J. How many dietitians hold a second job? Multiple jobholding among US dietitians and nutritionists, January 2020 to August 2026. The Dietetics Workforce Reports, Report 10, version 1.1. Orlando, FL: Vitae Arete LLC; October 22, 2026. doi: 10.5281/zenodo.23568974.

In brief

What it asks. How many employed dietitians and nutritionists in the United States hold more than one job, how that compares with other healthcare practitioners, and what the second jobs are.

What it finds. In a check on 2020 to 2022, set before those years were read, dietitians' rate (7.50 percent) was not measurably higher than other healthcare practitioners' (6.66 percent). Pooled over January 2020 to August 2026, a figure that includes years the author saw before the plan was frozen, 10.3 percent of employed dietitians and nutritionists held more than one job (95 percent interval 7.0 to 13.6), against 6.9 percent of other healthcare practitioners. That gap sits in 2024 to 2026, and whether its interval clears zero depends on the variance method; in every year a handful of people carry much of the estimate. About half of the second jobs were also in dietetics, mostly as wage and salary work.

What it adds. Searches of PubMed and OpenAlex on September 30, 2026, found no study of multiple jobholding among US dietitians or nutritionists; the one related record, from Russia, reports a staffing measure rather than a rate. This report gives an estimate from the federal survey, on the federal definition, with intervals that account for the survey's design.

Status of this report

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed. AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate checked that every number in the text, other than years, dates, times, labels, codes and three printed ranges, occurs among the values in the deposited files or the registered constants from named sources, and checked the main results sentence by sentence; it ran 342 checks on the final text, and the author reviewed the results, sources and text. The analysis plan was frozen, that is, fixed and timestamped so that any later change would show, before the 2020 to 2022 files were downloaded. The first of two clarifications of the variance method was added after those files were counted and before any rate was computed; by then the author had seen unweighted monthly counts for some months (Appendix A). The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten.

What this report asks

This report asks a measurement question: the share of employed dietitians and nutritionists in the United States who held more than one job in a given week between January 2020 and August 2026. It compares that share with registered nurses, other healthcare practitioners and all employed people. The source is the Current Population Survey, the monthly federal household survey behind the national unemployment rate. It asks every employed person whether they had more than one job in the reference week, usually the week containing the 12th of the month.

It does not ask why dietitians hold second jobs. The survey records jobs held in one week, not reasons, earnings from the second job or the hours a person would prefer. Nothing here says that pay causes second jobs.

Key findings

- **The check on 2020 to 2022, set before those years were read, found no measurable difference.** On the survey's direct question, the measure fixed in the plan, dietitians' rate was 7.50 percent and other healthcare practitioners' 6.66 percent. The difference, 0.84 points, has an interval of -2.54 to 4.22, so the hypothesis that dietitians' rate was higher in those years is not supported.

- **Pooled over 2020 to 2026, about one in ten employed dietitians and nutritionists held more than one job, an average of two different periods.** The pooled share was 10.3 percent (95 percent interval 7.0 to 13.6), against 6.9 percent (6.6 to 7.2) for other healthcare practitioners, 5.8 percent (5.4 to 6.3) for registered nurses and 4.96 percent (4.89 to 5.02) for all employed people. The pooled figure includes years the author saw before the plan was frozen and tests nothing. The 3.4-point difference from other practitioners (0.1 to 6.7) keeps its direction under other defensible variance methods, but under three of six its interval includes zero (Appendix Table A2).
- **The gap sits in 2024 to 2026, and every year rests on few people.** Split after the review, at a break chosen after the annual series had been seen, the dietitian rate was 7.5 percent in 2020 to 2023, not measurably different from other practitioners' 6.7 percent, and 14.2 percent in 2024 to 2026. The author had seen estimates for 2023 to 2026 before the plan was frozen. Each year, the survey's dietitians holding more than one job were 18 to 29 people, and five of them carried 49 to 63 percent of that year's weighted count, the survey's estimate of how many dietitians held second jobs. Leaving out the five most heavily weighted people lowers every year's rate, early years included, and with a band adjusted for seven years no annual difference from other practitioners excludes zero. No trend is claimed.
- **About half of the second jobs were also in dietetics, mostly as wage and salary work.** The survey asked 67 dietitians about their second jobs, in 81 person-month records. In 36 records, from 29 people, the second job was in dietetics (52 percent weighted; person-clustered interval 36 to 67 percent), and 22 of those 36 were wage and salary jobs. Across all second jobs, 41 percent (weighted) were self-employment, incorporated or not; 31 percent were unincorporated, the Bureau's self-employed category. The weighted median was 10 usual hours a week at the other jobs.

Plain-language summary

Some dietitians work more than one job: a hospital position and a private practice, for example. This report counts how many, using the federal survey that measures employment every month.

From 2020 to 2023, about one employed dietitian or nutritionist in thirteen held more than one job in a given week, not measurably different from other healthcare practitioners. The plan, set before 2020 to 2022 were examined, predicted a higher rate for those years; it was not measurably higher.

The rate was higher from 2024, but those years rest on only 20 to 30 dietitians with a second job each year, a few of whom carry much of the estimate, and the author saw them before setting the test. No trend is claimed. Over the whole period about one in ten held more than one job, though with fewer than 200 dietitians surveyed a year the true figure could be anywhere from about 7 to 14 in 100.

Among the dietitians asked about their second jobs, about half of those jobs were more dietetics work, mostly for another employer, and about two in five were the person's own business. Most took 10 hours a week or fewer.

The sentence to repeat: about one working dietitian in thirteen held a second job in a given week in 2020 to 2023, not measurably more than other healthcare practitioners; a higher rate since 2024 rests on a few dozen people.

Abstract

Background. Multiple jobholding has been measured for nurses and other health workers, but searches on September 30, 2026, found no such measurement for US dietitians or nutritionists.

Objective. To estimate how many employed dietitians and nutritionists hold more than one job, against comparison groups, and to describe the second jobs.

Methods. Measurement study of the Current Population Survey basic monthly files, January 2020 to August 2026 (79 months; no October 2025). Employed persons by main-job occupation, on the Bureau of Labor Statistics definition of a multiple jobholder, validated against the published series. 95 percent intervals from the Bureau's variance functions. One hypothesis was frozen and timestamped before the 2020 to 2022 files were downloaded: that dietitians' rate, on the survey's direct question, exceeded other healthcare practitioners' in those years.

Results. In 2020 to 2022 the difference was 0.84 points (interval -2.54 to 4.22), so the hypothesis was not supported. Pooled over 2020 to 2026, including years seen before the freeze, 10.3 percent of employed dietitians and nutritionists held more than one job (95 percent interval 7.0 to 13.6), against 6.9 percent of other healthcare practitioners (difference 3.4 points, interval 0.1 to 6.7), a descriptive figure whose interval includes zero under three of six alternative variance methods. The gap sat in 2024 to 2026. About half of the second jobs were in dietetics; two in five were self-employment, incorporated or not. The measure matched the published rate in 78 of 79 months.

Conclusions. About one in ten employed dietitians and nutritionists held a second job over 2020 to 2026, but the difference from other healthcare practitioners rests on 2024 to 2026, seen before the plan was frozen and resting on few people; the check on 2020 to 2022 found no gap.

Keywords: dietetics workforce; multiple jobholding; second jobs; self-employment; Current Population Survey; healthcare workforce

Disclosures

Declaration of conflicting interest

The author is a registered dietitian nutritionist practicing at AdventHealth Celebration, Celebration, Florida, and is therefore a member of the occupation whose multiple jobholding this report measures. Alongside that employment he owns Vitae Arete LLC, so he is himself a dietitian with work outside his main job, the arrangement this report counts. Vitae Arete LLC publishes this report series and offers fee-based nutrition

counseling, including by telehealth to clients in Florida, and nutrition consulting to employers; the company also develops workforce-data tools for the dietetics profession and publishes commentary on dietetics workforce policy. He has written nutrition guides on oncology nutrition and on nutrition during weight-loss medication therapy, which are sold online and through commercial retailers, and he offers a version of the latter for license to medical practices. He earns income from his books, and would earn a margin on any supplements ordered through his Fullscript practitioner dispensary, which has had no orders to date. He has published commentary, and has submitted other manuscripts, on the dietetics workforce and has advocated for changes in dietetics workforce and Medicare payment policy. He has presented to his employer's leadership a proposal on dietitian compensation that draws on Occupational Employment and Wage Statistics data. In a national workforce memorandum posted on his company's website, he proposed a federal Nutrition Health Professional Shortage Area designation and loan-forgiveness pathways for dietitians serving in underserved areas; the findings reported here do not bear on those proposals. This report was prepared independently and does not represent the views of AdventHealth; no employer data or nonpublic data were used. He has shared workforce analyses with the Academy of Nutrition and Dietetics, provided informal, uncompensated input on workforce matters, including to an Academy workforce task force, and has an abstract on dietitian compensation accepted for presentation at the Academy's 2026 Food & Nutrition Conference & Expo; he holds no paid position with and has received no funding from the Academy or its affiliated bodies. In October 2026 he accepted a volunteer seat on the Academy's Professional Pipeline Task Force workgroup on improving affordability and return on investment, which meets from November 2026. His employer, AdventHealth, is paying for his attendance at the Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) 2026. He is a member of the Academy and of its Oncology Nutrition dietetic practice group. He has precepted students in his employer's accredited dietetic internship, a supervised-practice program in dietetics, since 2023, as part of that employment and without separate payment. He is enrolled in a university study of AI in scientific research, drawn from applicants to Anthropic's AI for Science program, whose participants are entered in a lottery for Claude credits or a subscription; Anthropic makes Claude, the AI tool used in this work (Use of artificial intelligence). Beyond the relationships disclosed above, he has no financial relationship with any entity that could gain or lose from these findings, and apart from this report series no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report.

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1. Introduction

1.1 The problem

How many dietitians hold more than one job has not been measured in this series, and the searches in section 1.3 found no study that measured it for US dietitians. Studies of other workers link second jobs to low wages or hours in the main job, financial need, job dissatisfaction and the chance to gain skills.[1–3] The answer matters to anyone who counts the dietetics workforce by main job. This report does not test whether pay explains second jobs; section 4.4 sets out what second jobs mean for the series' pay comparisons.

1.2 What is known

The closest studies concern nurses and other health workers. Baughman, Stanley and Smith used the same federal survey for 2010 to 2019. They found that 6.23 percent of licensed practical and registered nurses, and 6.41 percent of personal care and nursing aides, held second jobs, rates about a third higher than other workers'. For aides, lower wages and fewer hours in the main job went with a higher chance of a second job; for nurses, fewer hours mattered more.[1] In an administrative census of Ontario nurses, Drost and colleagues found that about 19 percent of registered nurses in long-term care homes held more than one job before the pandemic.[4] A survey of 924 Belgian nurses, with its own definition, found 38.3 percent holding more than one job, with financial need and job dissatisfaction the main reasons given.[2] In 29 public hospitals in two South African provinces, Matiwane, Blaauw and Rispel found that 38.7 percent of rehabilitation therapists had held more than one job in the previous year, most often in private practice.[5] In labor economics, Panos, Pouliakas and Zangelidis found evidence that British workers may use second jobs to gain skills and as a stepping-stone to new careers, including self-employment.[3] Lalé reported that the US multiple-jobholding rate fell from a peak of 6.8 percent in 1995 to 5.0 percent by the end of 2013.[6]

1.3 The gap

A search of PubMed on September 30, 2026, combined dietitians, nutritionists or dietetics with multiple jobs, moonlighting, second jobs, side businesses or secondary employment, in titles and abstracts. It returned no records. Searches of OpenAlex the same day found no study that measured multiple jobholding among US dietitians; the two larger ones returned 362 and 1,018 records, of which the top 25 of each, by relevance, were screened on titles. A later OpenAlex search of titles and abstracts, for dietitian terms with multiple-job terms, returned six records. One, a 2025 Russian study of staffing for obesity care, reported a "secondary employment coefficient" of 1.4 for dieticians in outpatient care in 2023.[7] That is a staffing measure, not a share of people holding more than one job, and it describes Russia, so it is set aside. The studies in section 1.2 came from the first of two broader PubMed searches, two of the OpenAlex searches and, for Lalé's, the author's own reading, confirmed at Crossref (Appendix C).

1.4 Purpose, research questions and hypothesis

The purpose of this study is to estimate, from the Current Population Survey, the share of employed dietitians and nutritionists who hold more than one job, against comparison groups, with design-based uncertainty, and to describe the second jobs.

- **RQ1 (the rate; descriptive).** What share of employed dietitians and nutritionists held more than one job from January 2020 to August 2026, against registered nurses, other healthcare practitioners and all employed people?

- **RQ2 (the 2020 to 2022 check).** Was the dietitian rate higher than the rate for other healthcare practitioners in 2020 to 2022, years not read when the plan was frozen?
- **RQ3 (the second jobs; descriptive).** What are the second jobs: occupation, self-employment and usual hours?
- **RQ4 (validation).** Does the all-employed rate computed here match the rate the Bureau of Labor Statistics publishes?

Hypothesis H1 (RQ2). In 2020 to 2022, the dietitian multiple-jobholding rate exceeds the rate for other healthcare practitioners. H1 is supported if the 95 percent interval for the difference lies above zero, not supported if it includes zero, and counts against the hypothesis if it lies below zero. RQ1, RQ3 and RQ4 have no hypothesis; they describe or check. No trend is claimed, because no trend test was set before the data were read.

1.5 Significance

Dietetics leaders, program directors and working dietitians can use the rate to see how common outside work is in the profession. Researchers comparing dietitian pay with other professions' can see how much work a single-job comparison leaves out.

1.6 Scope and key terms

- **Multiple jobholder.** In the Bureau of Labor Statistics definition, a person who had two or more jobs in the survey reference week, at least one of them a wage and salary job. That covers two or more wage and salary jobs, self-employment together with a wage and salary job, or unpaid family work together with a wage and salary job. Self-employed people with several businesses, and people with several unpaid family jobs, are not counted. In most of its estimates the Bureau counts the incorporated self-employed among wage and salary workers.[8] A dietitian with a hospital job and a private practice therefore counts.
- **Dietitians and nutritionists.** Census occupation code 3030 (Standard Occupational Classification 29-1031) on the person's main job, the job with the most hours; it includes nutritionists without the dietitian credential. People who work in dietetics only in a second job are outside this group.
- **Other healthcare practitioners.** Census codes 3000 to 3550, healthcare practitioners and technical occupations, excluding 3030. The group includes physicians, pharmacists and nurses as well as the allied health professions.
- **Person-month record.** One person interviewed in one month. The survey interviews a household for up to eight months, so records are not people.

2. Methods

2.1 Design and reporting

A measurement study from federal household-survey microdata, reported with reference to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guideline for cross-sectional studies, with one hypothesis frozen before its data were downloaded. The plan was written on the evening of September 29, 2026, US Eastern time, before any January 2020 to December 2022 file had been downloaded. It was frozen on September 30, 2026, at 00:55 UTC, then hashed and timestamped by the FreeTSA time-stamping authority (Appendix A). Two later clarifications of the variance method, for H1 and for the descriptive intervals, and one deviation, on the measure for the descriptive questions, were also hashed and timestamped; that each came before the estimates it governs rests, for the deviation, on the author's record (Appendix A). The author had already seen feasibility estimates for January 2023 to August 2026; those estimates were not used to test H1.

2.2 Data and population

The data are the Current Population Survey basic monthly public-use files for January 2020 to August 2026, retrieved from the Census Bureau on September 30, 2026.[9] The survey was not conducted in October 2025, because of a federal government shutdown, and those data were not collected afterward,[10] so 79 monthly files are used. Each year's record layout was read before that year's files were counted, including the revised layout issued in May 2024. The universe is employed civilians aged 16 and over, weighted by the composite weight the Bureau uses for its published estimates. People are grouped by the occupation of their main job, coded from 2020 to the 2018 Census occupation system. The files hold 2,979 person-month records of dietitians and nutritionists, from 834 people, 118 of whom held more than one job in at least one month. The survey reaches fewer than 200 dietitians a year: 156 to 186 a year from 2020 to 2025.

2.3 Measures

The outcome is holding more than one job in the reference week, on the Bureau's definition. The public file carries this as a recode in which the value 2 marks a multiple jobholder.

The frozen plan named a different measure, the survey's direct question on holding more than one job, labelled "Do you have more than one job?" in the record layout. RQ4 showed that the direct question counts more people than the Bureau's definition, because it includes combinations the definition excludes (section 3.4). A dated deviation therefore uses that definition for the descriptive questions, as the plan's key terms already did. H1 keeps the direct question, and the Bureau-definition result is reported beside it. The Bureau's definition gives a pooled dietitian rate of 10.32 percent and the direct question 10.40 percent.

The occupation of the second job is collected only in the outgoing rotation months, the fourth and eighth interviews of each household; so is its class of worker, except for people whose main job is unincorporated self-employment. RQ3's occupation and class-of-worker figures therefore use the outgoing rotation records only. Usual hours at the other jobs are asked every month; they are reported for the outgoing rotation records, to match, and for all months.

2.4 Analysis

Rates are weighted shares. Pooled rates are ratios over all published months. Annual rates divide the year's average monthly weighted count of multiple jobholders by its average monthly weighted employment; 2025 averages its eleven published months and 2026 its first eight.

The plan named three ways to compute intervals, in order of preference: Census replicate weights, the Bureau's generalized variance functions, or a person-clustered bootstrap. The Census Bureau's folders of basic monthly files for 2020 to 2026 hold no replicate-weight files (searched September 30, 2026), so the variance functions are primary.[9,11] They give a standard error from an estimate's size and base. The Bureau publishes parameters for employment by broad occupation group (table PF-13), but none were found in tables PF-1 to PF-16 for multiple-jobholder rates by occupation. The parameters for the national multiple-jobholder rate are therefore used, following the Bureau's formula for borrowing from one rate for another. That borrowing assumes the dietitian group's design effect is about the same as that of all employed people, which cannot be checked here, and the Bureau advises using, among candidate series, the parameters that give the highest standard error. Of the three rate rows available (all persons, men, women), the all-persons row gives the widest intervals and is used; borrowing from the employment series in table PF-13, a level-to-rate conversion the Bureau describes for when no similar rate exists, gives wider ones (Appendix Table A2). How years are combined, including a covariance of adjacent years taken from the factor for changes, is this report's construction rather than a documented Bureau method (Appendix A). A person-clustered bootstrap (2,000 replicates, seed 20260929), which resamples people rather than records, is a sensitivity check; it ignores the survey's strata and clusters. Appendix Table A2 shows how the pooled difference moves under other choices, including borrowing from the employment series in table PF-13.

H1 is tested on the pooled 2020 to 2022 difference, dietitians minus other healthcare practitioners, by the rule in section 1.4. After the review, the pooled rates were also split at 2020 to 2023 and 2024 to 2026 with the same method, at a break chosen after the annual series had been seen, and the people behind each year's count were counted; these are descriptive and test nothing.

2.5 Verification

A validity gate checks that every number in the text, other than years, dates, times, labels and codes, occurs among the values in the deposited files or the registered constants from named sources. That is a test of membership: a number can pass without sitting in the right sentence, so the gate also checks the main results sentence by sentence. It sets aside the endpoints of three printed ranges of shares, and it does not check the numbers in the reference list, the figure legends or the alt text. The figures in the Corrections section are checked separately against the deposited values. It also checks the front matter, references and house style, and negative controls plant errors to show that it catches them. The analysis code, derived tables, timestamps and verification sheet are deposited (Data availability).

2.6 Ethics

The study used only public-use, de-identified federal survey files and involved no human participants, so institutional review board review was not required.

3. Results

3.1 RQ1: the rate

About one in ten employed dietitians and nutritionists held more than one job. Pooled over January 2020 to August 2026, the share was 10.3 percent (95 percent interval 7.0 to 13.6) for dietitians and nutritionists and 6.9 percent (6.6 to 7.2) for other healthcare practitioners. It was 5.8 percent (5.4 to 6.3) for registered nurses and 4.96 percent (4.89 to 5.02) for all employed people (Table 1). The difference from other healthcare practitioners was 3.4 points (0.1 to 6.7); the bootstrap interval was 0.7 to 6.2. Its direction holds under other defensible variance methods, but its separation from zero does not: with no correlation between years beyond the first, the interval is 0.5 to 6.3; with the yearly factor set as if each person's months within a year were perfectly correlated, -0.7 to 7.5; and borrowing from the professional-and-related employment series in table PF-13, -0.8 to 7.7 (Appendix Table A2). The differences from registered nurses and from all employed people were 4.5 points (1.2 to 7.8) and 5.4 points (2.1 to 8.6).

By year, the dietitian rate was 6.3 percent in 2020, 9.1 in 2021, 7.0 in 2022 and 7.5 in 2023. It was 10.7 in 2024, 15.6 in 2025 and 18.4 in January to August 2026 (Table 2, Figure 1). The rate for other healthcare practitioners ran between 6.3 and 7.7 percent. The annual difference had an interval that included zero in every year from 2020 to 2024. It lay above zero in 2025 (7.9 points, 1.5 to 14.3) and in January to August 2026 (12.1 points, 0.4 to 23.8), but with a band adjusted for seven comparisons no annual difference excludes zero (2025: -0.9 to 16.7).

Split after the review, at a break chosen after the annual series had been seen, the dietitian rate was 7.5 percent (4.4 to 10.7) in 2020 to 2023, against 6.7 percent (6.4 to 7.0) for other practitioners. In 2024 to 2026 it was 14.2 percent (8.3 to 20.1), against 7.2 percent (6.7 to 7.7), a difference of 7.0 points (1.0 to 12.9). The author had seen estimates for 2023 to 2026 before the plan was frozen, so only 2020 to 2022 were unseen. The split the design itself defines, unseen 2020 to 2022 against seen 2023 to 2026, gives differences of 0.9 points (-2.5 to 4.3) and 5.4 points (0.5 to 10.3).

Every year rests on few people. The dietitians holding more than one job were 18 to 29 people in each year, 64 people in 2024 to 2026, and 118 of the 834 dietitians held more than one job in at least one month. In each year the five most heavily weighted of them carried 49 to 63 percent of the weighted count: 63 percent in 2020, 52 in 2025 and 63 in 2026, when two carried 45 percent. Leaving out those five in each year lowers every year's rate, from 6.3 to 2.5 percent in 2020 and from 15.6 to 8.1 percent in 2025, so no single year's figure is firm. Over 2024 to 2026, leaving out the five multiple jobholders with the most weight lowers the rate from 14.2 to 9.7 percent, and doing the same within 2020 to 2023 lowers it from 7.5 to 5.4; leaving out the five most heavily weighted dietitians of any status gives 12.3 percent for 2024 to 2026. Capping weights at the 95th percentile gives 13.4 percent for 2024 to 2026, and the unweighted rate rose too, from 8.5 percent in 2020 to 2023 to 12.9. Over 2020 to 2026, rates were higher in

households' first interviews (14.6 percent) than in later ones (9.7 percent). Second jobs came and went: of the 628 dietitians seen in two or more months, 27 held more than one job in every month and 77 in only some, consistent with Paxson and Sicherman's finding that workers move into and out of second jobs often.[12] No trend was tested.

3.2 RQ2: the 2020 to 2022 check

H1 is not supported. In 2020 to 2022, on the direct question, 7.50 percent of dietitians and nutritionists held more than one job against 6.66 percent of other healthcare practitioners. The difference, 0.84 points, has a 95 percent interval of -2.54 to 4.22, which includes zero (Appendix Table A1). The interval also included zero in every sensitivity version, including the person-clustered bootstrap (-1.93 to 3.98). On the Bureau's definition the figures were 7.50 and 6.59 percent, a difference of 0.91 points (-2.47 to 4.29).

3.3 RQ3: the second jobs

In the outgoing rotation months, 81 person-month records, from 67 people, were of dietitians holding more than one job (Table 3). In 36 of them, from 29 people, the second job was also in dietetics (52 percent weighted); a person-clustered bootstrap puts that share between 36 and 67 percent. Of those 36, 22 were wage and salary jobs, 3 incorporated self-employment and 11 unincorporated self-employment (57, 15 and 28 percent weighted). The other 45 second jobs were spread across other occupation groups, none of them another healthcare practitioner occupation.

By class of worker, 49 of all the second jobs were wage and salary work (59 percent weighted). Another 27 were unincorporated self-employment (31 percent), the Bureau's self-employed category, and 5 were incorporated self-employment (10 percent), which the Bureau counts as wage and salary work. The 32 self-employed records, incorporated or not, came from 28 people; a person-clustered bootstrap puts their weighted share between 26 and 56 percent.

Of the 74 records with a number of hours, the weighted median was 10 usual hours a week at the other jobs, and 59 percent, weighted, reported 10 hours or fewer; 7 records said hours varied. Hours are asked every month, and across all months the figures were close: 276 records with a number, a weighted median of 10 hours and 61 percent at 10 hours or fewer, with 28 saying hours varied. Across all months, 279 of the 304 records of dietitians holding more than one job had a wage and salary main job, and 15 more were incorporated self-employed.

3.4 RQ4: validation against the published series

On the Bureau's definition, the all-employed rate computed here matches the published not seasonally adjusted rate (series LNU02026620) to the decimal place the Bureau prints in 78 of 79 months. The largest gap is 0.05 points, a rounding case in January 2020. The level matches the published count (LNU02026619) within 17 thousand people, and weighted employment matches the published total within 0.5 thousand in every month.[13] The survey's direct question, by contrast, runs above the published rate in every month, by 0.09 to 0.26 points, which is why the Bureau's definition is used for the descriptive questions (section 2.3). The check validates the measure and the weights for all employed people. The Bureau's annual table of multiple jobholders gives rates by age, sex, race, ethnicity and marital status, and counts by full- or part-time status, not figures by occupation,[14] and no occupation-level rate was found to check the dietitian estimates against.

4. Discussion

4.1 Principal findings

RQ2: in the check on 2020 to 2022, dietitians' rate was not measurably higher than other practitioners', so H1 is not supported. RQ1: about one in ten employed dietitians and nutritionists held more than one job over January 2020 to August 2026. The gap over other practitioners sits in 2024 to 2026, which rests on few people, and its pooled interval reaches almost to zero. RQ3: about half of the second jobs were also in dietetics, most of them wage and salary jobs, and about two in five of all second jobs were self-employment, incorporated or not, mostly for 10 hours a week or fewer. RQ4: the Bureau's definition, computed from the public files, reproduces the published rate for all employed people.

4.2 Comparison with prior research

The registered nurse rate here, 5.8 percent over 2020 to 2026, is close to the 6.23 percent Baughman and colleagues found in the same survey over 2010 to 2019. Their group, licensed practical and registered nurses together, and their period differ from these.[1] The all-employed rate, 4.96 percent, is close to the 5.0 percent Lalé reported for the end of 2013.[6] The Belgian and South African estimates come from surveys with their own definitions and reference periods, and are not comparable with a federal reference-week rate.[2,5] That about half of dietitians' second jobs were in dietetics, most of them wage and salary jobs, is consistent with per diem or part-time work for a second employer. That about two in five of all second jobs were self-employment is consistent with private practice alongside employment for some, with Panos and colleagues' evidence that second jobs can be a stepping-stone to self-employment, and with private practice being the most common second job among the South African rehabilitation therapists.[3,5] This report does not test these readings.

4.3 Alternative explanations

Several things the design cannot rule out could produce a higher dietitian rate. The annual samples are small, and a few people carry much of each year's weighted count, as in 2020, when five people carried 63 percent, so a few households can move an annual rate by several points. Per diem clinical work, paid by the shift, may be reported as a second job. Nutritionists without the credential are in the same occupation code. The 2020 survey year was disrupted by the pandemic. From April 2025 to July 2026 the survey phased in a redesigned sample based on the 2020 Census, which the Bureau expected to have a negligible effect on published estimates;[15] the survey's weights are also revised each January to new population controls. The dietitian rise was not checked against either, or against who answered for the household, since the self or proxy field was not extracted. Multiple jobholding rates also differ across local labor markets and fall with market size, which was not examined.[16] Other possible changes in 2024

to 2026 were not examined, among them part-time dietetics work for telehealth nutrition services and the mix of people coded as nutritionists. The rates were not adjusted for sex, age or part-time main jobs, and the two groups may differ on all three. In the Bureau's 2025 annual figures, 91.7 percent of employed dietitians and nutritionists were women, against 75.3 percent of healthcare practitioners. Women held second jobs at a higher rate than men (5.9 against 4.9 percent of the employed).[14,17] Among the dietitians here, women's pooled rate was 10.9 percent and men's 5.3 percent, over 95 men, 12 of whom held more than one job. The comparison group's sex mix was not read from the survey files. As a rough estimate, giving other practitioners the dietitians' share of women raises their rate by about 0.2 points at the all-employed ratio of women's to men's rates, or about 0.7 points at the dietitians' own ratio; either is less than the gap, but either moves the lower end of the pooled difference's interval to or below zero. Sex does not explain the timing either: women made up 86 to 96 percent of the dietitians' weighted records in every year. Part-time main jobs do leave room for a second job. The share of dietitians usually working fewer than 35 hours at their main job rose from 20.5 percent in 2020 to 2023 to 29.1 percent in 2024 to 2026. Their rate was about twice that of dietitians working 35 hours or more in both periods (12.2 against 6.5 percent, then 22.4 against 11.2). Holding the earlier hours mix fixed, the 2024 to 2026 rate would be 13.3 percent rather than 14.2, so the rise appears within both groups. Age was not pulled.

4.4 Implications

Counts of the workforce by main job, as in this survey, include these dietitians but not their second jobs. About half of those second jobs are further dietetics work, so counts of dietetics hours from main jobs alone leave that work out, and workforce surveys that ask about a single employer will undercount dietetics work done outside it. What second jobs mean for pay comparisons depends on the source. The federal wage survey behind the series' comparisons, in which dietitians had the lowest mean annual wage of seven clinical occupations in May 2025 ($77,130), surveys employers.[18-20] Each wage and salary job is reported by its employer, annual pay is the hourly rate times 2,080 hours, a pay rate rather than a person's earnings, and self-employment is not covered.[21] The American Community Survey's wage income, used in Report 4, covers all of a person's wage and salary jobs, whatever their occupation, so wage and salary second jobs are already in it; self-employment income, such as a private practice, is reported separately and is not.[18] None of this says why dietitians hold second jobs; the survey does not ask.

4.5 Limitations

The survey reaches fewer than 200 dietitians a year, so every dietitian rate here has a wide interval. Occupation code 3030 is not the credential. The rate describes jobs held in one week, and household members may answer for one another. Household surveys and employer records disagree most for marginal and nonstandard jobs, the kind many second jobs are.[22] The second job's occupation, and for most people its class of worker, come from a quarter of the interviews, 81 records here. The variance method uses parameters fitted to the national multiple-jobholder rate and assumes they apply to occupation groups; it cannot reflect how concentrated the dietitian counts are in every year. October 2025 is missing and 2026 is a partial year. Appendix C lists further limitations.

4.6 What would settle the open question

Two questions remain open: whether dietitians now hold second jobs more often than other practitioners, and why dietitians hold second jobs. For the first, a test was fixed and timestamped on September 30, 2026, when the Census Bureau's folders listed no file later than August 2026 (Appendix A). It will compare dietitians with other healthcare practitioners in the 2027 files, then with 2028 and 2029 added, counting only households that are in none of the files read here, and it will ask whether the gap is wider than in 2020 to 2022. The survey reaches fewer than 200 dietitians a year, so the test can detect only a large difference. The second needs a survey of credentialed dietitians that asks about every job they hold, their hours and their reasons.

5. Conclusion

In the check set before its data were read, dietitians' multiple-jobholding rate in 2020 to 2022 was not measurably higher than other healthcare practitioners'. Across January 2020 to August 2026, about one in ten employed dietitians and nutritionists held more than one job, and about half of those second jobs were also in dietetics. The pooled gap comes from 2024 to 2026, estimates the author saw before the plan was frozen, and they rest on few people.

Data availability

Every source used in this report is public. The Current Population Survey basic monthly public-use files and record layouts are published by the Census Bureau. The published multiple-jobholder series and the variance parameters are published by the Bureau of Labor Statistics. The monthly survey files are not redistributed, but the deposit does hold public-use survey rows extracted from them, with no state, metro area or county field. For every dietitian person-month (2,979 in all) it holds selected fields as the Census Bureau published them, including the survey's household and person identifiers. For every person-month of the other healthcare practitioners (237,899 in all) it holds a person key built from those identifiers, the composite weight and two flags for multiple jobholding, one on the direct question and one on the Bureau's recode. The deposit also carries the code that downloads and counts the files, the monthly aggregates, the results, the figure code, the frozen plan (with the note below), its timestamps, the follow-up plan frozen on September 30, 2026, for the 2027 to 2029 files, this report's text and the verification sheet, at 10.5281/zenodo.23568977 (version 1.1; version 1.0 10.5281/zenodo.23061164; concept DOI 10.5281/zenodo.23061163).

The deposited copy of the frozen plan leaves out part of its status paragraph, which covers release timing and where the idea arose and does not bear on any hypothesis, measure or analysis rule. The author removed it before deposit, and each removal is marked. The plan's FreeTSA token verifies against the unredacted original, not the deposited copy; the original's SHA-256 is printed in the deposit copy. Readers can therefore verify the two later tokens themselves, and the plan's token only through the author.

Dates and times are in Coordinated Universal Time. Sources revised on a schedule are identified by the date they were read: the survey files and record layouts, the published series, the variance parameters and the Bureau's annual tables were all read on September 30, 2026. The deposit's files date only some of these readings; its README says which.

How this report was checked

This report is self-published and is not a journal publication. Before release the author checked it through an adversarial review he directed. AI review agents read the text separately for statistics, sources, consistency and disclosure. A validity gate checked that every number in the text, other than years, dates, times, labels, codes and three printed ranges, occurs among the values in the deposited files or the registered constants from named sources, and checked the main results sentence by sentence; it ran 342 checks on the final text, and the author reviewed the results, sources and text. The dated verification sheet is deposited with the data. Corrections are dated, labelled and appended; the argument is never silently rewritten. Appendix A sets out the plan, its timestamps, the deviation and the variance method.

Use of artificial intelligence. Claude (Anthropic), a large language model, was used under the author's direction to write and run the code that retrieved, tabulated and checked the data and produced the figure and tables; to check reported figures, quotations and citations against the sources that issued them; to search and screen the literature; to draft and edit text; and to run the review passes described in the status note. The author directed the analyses, reviewed the code output, sources and text, and is responsible for the content.

Corrections

Corrections to this report are dated, labelled and appended below, never made silently. Each correction names what was wrong, where the wrong figure came from, who identified it, and whether the argument survives. The version history for the series is in the series Introduction.

No corrections have been issued to version 1.0 as of the release date.

Correction, version 1.1, October 22, 2026. The data record for version 1.0 (10.5281/zenodo.23061164) had a gap. Its file `analysis/A06_results/r10_text_values.json` contains a block named `persons_by_year`. No script in that archive wrote the block. Run in the order its README gave, the archive's scripts rewrote the file without the block. The validity gate then passed 340 of its 342 checks. The two that failed are the checks on the figure 64, the number of people holding more than one job in 2024 to 2026. The values themselves are correct. Recomputed from the deposited person-month rows, they equal the block exactly. Year by year from 2020 to 2026, the number of people holding more than one job was 18, 25, 19, 19, 29, 25 and 21. It was 64 in 2024 to 2026, 61 in 2020 to 2023 and 118 in all. An AI agent the author directed found the gap on the evening of September 30, 2026, US Eastern time. It found it by rerunning the analysis from the deposited rows. The gap was reproduced on October 1, 2026, from a clean copy of the published archive. Version 1.1 of the data record adds the script that writes the block. No number in the report changes, and the argument is unaffected.

Correction, version 1.1, October 22, 2026. The report described its data record inexactly in six places. It said that the survey files are not redistributed. The data record holds the rows extracted from them: 2,979 dietitian person-months, with selected public-use fields, and 237,899 person-months of the other healthcare practitioners, with a person key, the weight and two flags. It said that the validity gate matched every number to a deposited value. The gate's number test checks only that each number occurs among the deposited values and registered constants, not that it sits in the right sentence, and it sets aside dates, times, labels, codes and three printed ranges as well as years. It gave one reading date for all its sources, but the data record dates only some of the readings. The record's verification sheet also said that the scripts and the gate were run from a clean copy and reproduced the deposited outputs byte for byte. The correction above shows that was not so. The text now says what the record holds. Version 1.1 of the data record corrects the sheet, a timestamp note and a note on a cited study, adds the two small log files that the record pointed to, and its README now says what the survey rows hold and which readings are dated. A read-only AI audit the author directed found these on October 2, 2026. No number or finding changes.

Updated October 22, 2026: the declaration of conflicting interest was corrected and now discloses more, and its last clause now says that no product or service of Vitae Arete LLC is described or cited in the analysis or findings of this report. The statement on the use of artificial intelligence now says that the AI also searched and screened the literature. Code and outputs for the multiple-jobholding rates of six comparable professions and for the hours that main-job counts miss were added to the data record. The gate now passes 342 of 342 when the data record is run in the README's order. No number in the report depends on the added code and outputs. None of this changes a finding.

Glossary

- **95 percent interval.** A range that, under the method's assumptions, would contain the true value in 95 of 100 repetitions of the survey.
- **Bootstrap, person-clustered.** A check on uncertainty that resamples people, with all their monthly records, many times over.
- **Composite weight.** The survey weight the Bureau of Labor Statistics uses for its published labor force estimates.
- **Direct question.** The survey's question on whether a person had more than one job, labelled "Do you have more than one job?" in the record layout; the measure fixed in the plan for H1.
- **Generalized variance function.** A formula the Bureau publishes for estimating the standard error of a survey estimate from its size, using parameters fitted to its published series.
- **Multiple jobholder.** A person with two or more jobs in the reference week, at least one of them a wage and salary job (Bureau of Labor Statistics definition; section 1.6).

- **Outgoing rotation.** The fourth and eighth monthly interviews of a household, in which the survey records extra detail, including the second job's occupation and class of worker (class of worker is also asked every month of people whose main job is unincorporated self-employment).
- **Person-month record.** One person interviewed in one month; the same person can appear in up to eight months.
- **Reference week.** The week, usually the one containing the 12th of the month, that the survey's questions refer to.
- **Self-employed, incorporated and unincorporated.** Working for oneself, in a business that is or is not incorporated. The Bureau's published self-employment figures count only the unincorporated.
- **Wage and salary job.** A job working for an employer, public or private, for pay; in the Bureau's convention this includes people working in their own incorporated business.
- **Weighted.** Counted with each record's survey weight, so that the result represents the population rather than the sample.

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Tables

Table 1. Share of employed people holding more than one job, by main-job occupation group, January 2020 to August 2026.

Group (Census occupation codes)	Bureau definition, percent (95 percent interval)	Direct question, percent	Person-month records	Of which, more than one job
Dietitians and nutritionists (3030)	10.3 (7.0 to 13.6)	10.4	2,979	304
Other healthcare practitioners (3000 to 3550, excluding 3030)	6.9 (6.6 to 7.2)	7.0	237,899	16,559
Registered nurses (3255)	5.8 (5.4 to 6.3)	5.9	82,378	4,905
All healthcare practitioners (3000 to 3550)	6.9 (6.7 to 7.2)	7.0	240,878	16,863
All employed	4.96 (4.89 to 5.02)	5.13	3,722,523	192,594

Weighted by the composite weight; 79 monthly files (October 2025 was not collected). Intervals from the Bureau's generalized variance functions (table PF-16, all-persons row). Records count people once per month interviewed; "more than one job" counts are on the Bureau's definition. The all-employed row is printed to two decimals because its interval is narrow.

Table 2. Share of employed dietitians and nutritionists and of other healthcare practitioners holding more than one job, by year (Bureau definition).

Year	Months	Dietitians and nutritionists, percent (95 percent interval)	Records	People holding more than one job	Other healthcare practitioners, percent (95 percent interval)	Difference, points (95 percent interval)
2020	12	6.3 (2.0 to 10.7)	432	18	6.4 (5.9 to 6.8)	0.0 (-4.4 to 4.3)
2021	12	9.1 (4.0 to 14.2)	472	25	6.4 (5.9 to 6.9)	2.7 (-2.4 to 7.8)
2022	12	7.0 (2.8 to 11.3)	529	19	7.0 (6.5 to 7.5)	0.0 (-4.3 to 4.4)
2023	12	7.5 (2.5 to 12.6)	390	19	7.0 (6.5 to 7.5)	0.6 (-4.5 to 5.6)
2024	12	10.7 (5.4 to 16.0)	500	29	7.4 (6.9 to 8.0)	3.2 (-2.0 to 8.5)
2025	11	15.6 (9.2 to 22.0)	407	25	7.7 (7.1 to 8.2)	7.9 (1.5 to 14.3)
2026, January to August	8	18.4 (6.7 to 30.0)	249	21	6.3 (5.5 to 7.0)	12.1 (0.4 to 23.8)

Annual rates: the year's average monthly weighted count of multiple jobholders over its average monthly weighted employment. Intervals as in Table 1; the 2026 interval uses the quarterly-average factor, which overstates it. Records are all dietitian person-month records; people are distinct dietitians holding more than one job in that year. No trend is tested, and the annual intervals are descriptive, not a test.

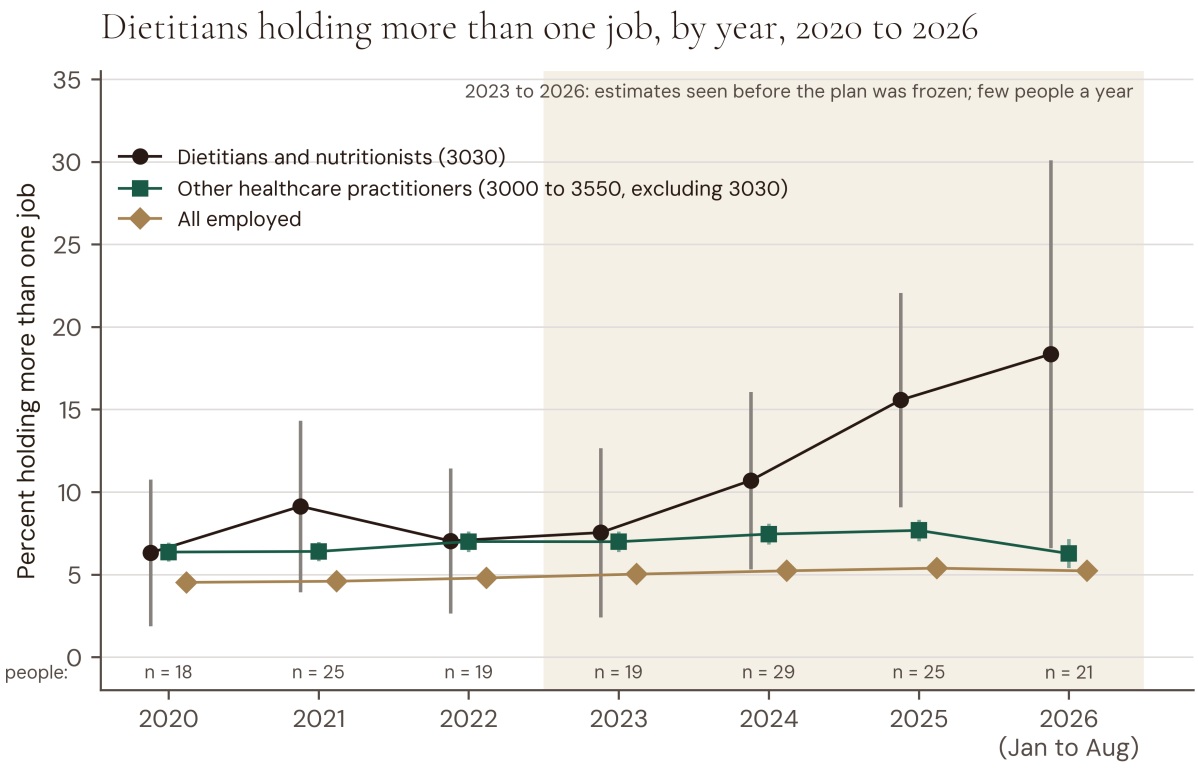
Table 3. The second jobs of dietitians and nutritionists holding more than one job, outgoing rotation months, January 2020 to August 2026 (81 person-month records, 67 people).

Characteristic	Records	People	Weighted percent
Second-job occupation: dietitians and nutritionists (3030)	36	29	52
Second-job occupation: any other occupation	45	not counted	48
Class of worker, second job: wage and salary	49	not counted	59
Class of worker, second job: self-employed (unincorporated 27, incorporated 5)	32	28	41
Usual hours at the other jobs: weighted median (74 records with hours)	10 hours	not applicable	not applicable
Usual hours at the other jobs: 10 or fewer (of 74 with hours)	49	not counted	59

The other occupations were sales and office (13 records), community and social service, education, arts and media (11), management, business and finance (8), service (7), healthcare support (3) and other groups (3). Seven records reported hours that vary. Composite weight; shares within the 81 records. Of the 36 dietetics second jobs, 22 were wage and salary work, 3 incorporated and 11 unincorporated self-employment. The Bureau counts only unincorporated self-employment (27 records, 31 percent weighted) as self-employment, and incorporated self-employment as wage and salary work. Hours are asked every month: across all months, 276 records had a number of hours, with a weighted median of 10 and 61 percent at 10 or fewer.

Figure legends

Figure 1. Dietitians holding more than one job, by year, January 2020 to August 2026. The share of employed dietitians and nutritionists (Census code 3030), other healthcare practitioners (codes 3000 to 3550, excluding 3030) and all employed people holding more than one job in the reference week, on the Bureau of Labor Statistics definition, with 95 percent intervals from the Bureau's generalized variance functions. The row along the bottom gives the number of distinct dietitians holding more than one job each year. The shaded years, 2023 to 2026, are those whose estimates the author saw before the plan was frozen. Annual rates from average monthly counts; 2025 averages its eleven published months and 2026 its first eight. No trend is tested. Source and basis are printed inside the image.



Source: US Census Bureau and Bureau of Labor Statistics, Current Population Survey basic monthly public-use files, January 2020 to August 2026 (79 months; October 2025 was not collected). Employed persons by main-job occupation; multiple jobholder on the Bureau's definition (recode PRSJMS/PRSJMJ = 2), composite weight. Annual rates: average monthly count of multiple jobholders over average monthly employment; 2025 averages its 11 published months and 2026 its first 8. Vertical bars: 95 percent intervals from the Bureau's generalized variance functions (table PF-16). n = distinct dietitians holding more than one job that year; in 2025, five of them carried 52 percent of the weighted count, and in 2026 two carried 45 percent. No trend is tested; only 2020 to 2022 were unseen when the plan was frozen. Dietitians and nutritionists (Census code 3030) include nutritionists without the credential.

Figure 1

Alt text: The share of dietitians holding more than one job was between about 6 and 9 percent each year from 2020 to 2023, close to other healthcare practitioners at about 6 to 7 percent, and higher from 2024, at about 11, 16 and 18 percent, with wide intervals and on 21 to 29 people a year; all employed people held steady at about 5 percent. The years 2023 to 2026, seen before the plan was frozen, are shaded.

Appendix A. Methods and verification in detail

The plan and its timestamps. The plan and argument sheet was written on the evening of September 29, 2026, US Eastern time, and frozen on September 30, 2026, at 00:55 UTC, before any January 2020 to December 2022 file was downloaded. Its SHA-256 hash was timestamped by FreeTSA at 00:56:06 GMT (serial 0x08AA0BD0). Clarification 1, fixing how the generalized variance functions were applied, was timestamped at 01:07:38 GMT (serial 0x08AA281A), after the 2020 to 2022 files had been counted and before any rate had been computed. By then the author had seen, for some months, the pull's progress log, which prints each month's unweighted counts of dietitian records and of those holding more than one job. Deviation 1 and Clarification 2 were timestamped at 01:48:51 GMT (serial 0x08AA8C22). The re-read wrote the monthly aggregates at 01:42, before that token; that no group rate on the Bureau's definition, other than the all-employed rate for RQ4, was computed earlier rests on the author's record, not the timestamp. The plan also carries two wordings of the verdict: its hypothesis section says an interval that includes the comparator rate counts against H1, while its frozen analysis rules call such an interval "not supported". The report uses the second; under the first, the result counts against H1. Every token verifies with openssl against FreeTSA's published certificates. In the deposit, the tokens for Clarification 1 and for Deviation 1 with Clarification 2 verify against the deposited files; the plan's token verifies against the unredacted original, which the author holds and whose SHA-256 the deposit copy prints.

The measures in the files. The Bureau's recode is named PRSJMS in the 2020 to 2022 layouts and PRSJMJ from 2023, at positions 496 to 497; the direct question is PEMJOT. Every field used sits at the same position in all eight layouts read, 2020 to 2026 including the May 2024 revision.

The variance method. For a group's annual average, with y the average monthly weighted employment in the group, p the rate in percent and y_borrow the average monthly total employment (the base of the lending series), the standard error is f times the square root of ((alpha + beta times y_borrow) divided by y, times p times (100 minus p)). Alpha and beta come from table PF-16, "Multiple jobholders, percent of total employed", all persons (alpha -5057.33939158, beta 0.000058530534), and f is its yearly-average factor (0.4945393993); January to August 2026 uses its quarterly-average factor (0.7866825532), which overstates that year's variance. The covariance of adjacent years comes from the factor for changes in

consecutive yearly averages (0.584886803), evaluated at the two years' pooled rate and averaged bases. For dietitians the implied adjacent-year correlations were between 0.28 and 0.32, except 0.75 for 2025 to 2026, where the partial-year factor inflates it; years two apart take the mean adjacent correlation, and years three or more apart take zero, since no household stays in the sample longer than sixteen months. Pooled variances weight each year by its share of the group's summed monthly employment. For H1, the men's and women's rows gave narrower intervals than the all-persons row, which is used as the conservative choice (Table A1).

Table A1. H1: dietitians minus other healthcare practitioners, 2020 to 2022, direct question.

Version	Difference, points	95 percent interval
Primary: all-persons row, conservative year-1-to-year-3 covariance	0.84	-2.54 to 4.22
All-persons row, year-1-to-year-3 covariance zero	0.84	-2.34 to 4.02
Men's row, conservative	0.84	-2.37 to 4.05
Women's row, conservative	0.84	-2.13 to 3.81
Person-clustered bootstrap, 2,000 replicates	0.84	-1.93 to 3.98
Bureau's definition, all-persons row	0.91	-2.47 to 4.29

Table A2. The pooled 2020 to 2026 difference, dietitians minus other healthcare practitioners, under other variance choices (added after review; descriptive).

Variance method	Difference, points	95 percent interval
Primary: table PF-16 all-persons rate row, the report's covariance rules	3.41	0.12 to 6.70
Lag-2 correlation set to zero	3.41	0.52 to 6.30
All correlations between years set to zero	3.41	1.20 to 5.62
Yearly-average factor set to the square root of one-third, as if each person's months within a year were perfectly correlated	3.41	-0.67 to 7.49
Table PF-13, employed in professional and related occupations, borrowed level-to-rate	3.41	-0.84 to 7.66
Table PF-13, employed in management, professional and related occupations, borrowed level-to-rate	3.41	-1.22 to 8.04
Person-clustered bootstrap, 2,000 replicates	3.41	0.75 to 6.17

Level-to-rate borrowing uses the civilian noninstitutional population 16 and over as its base (series LNU00000000), as the Bureau's instructions for that case describe; the Bureau prefers rate-to-rate borrowing where a similar rate exists, as table PF-16's does. The square root of one-third is the yearly-average factor's value if each person's months within a year were perfectly correlated and households were independent; it is not a ceiling, and some factors in the Bureau's tables are larger. H1 under the PF-13 professional-and-related row is 0.84 points (-3.68 to 5.36), still not supported. Code: `analysis/A06_results/r10_posthoc_round2.py`, which also gives person-clustered bootstrap intervals for each year beside the variance functions' (the bootstrap is narrower in every year but 2025) and the rates with the most heavily weighted people left out.

The re-read. The first count of 2020 to 2022 recorded only the direct question. After RQ4, with the author's approval, all 79 monthly files were read again with the Bureau's recode added; the re-read reproduced the first count exactly for the direct question. The recode is a strict subset of the direct question: over all employed records, 7,167 person-month records answering yes were not multiple jobholders on the Bureau's definition, and no record was counted by the recode that had answered no.

The follow-up plan. A plan for a further test was frozen on September 30, 2026, and its SHA-256 hash was timestamped by FreeTSA at 13:47:14 GMT (serial 0x08B16716). The Census Bureau's folder for 2026, read at 12:40 UTC that day, listed no basic monthly file later than August 2026, and a request for its 2027 folder returned HTTP 404. The plan fixes two hypotheses for the files of 2027 to 2029: H2, that dietitians' rate on the Bureau's definition exceeds other healthcare practitioners'; and H3, that the difference exceeds the 2020 to 2022 difference of 0.91 points on the Bureau's definition (Table A1; 0.84 on the direct question). It counts only rotation groups that entered the sample in September 2026 or later, because 38 of the 96 rotation-group-months of 2027 belong to households already in the files read here. It is read at three looks (2027; 2027 and 2028; 2027 to 2029), from 99.5, 99.5 and 96 percent intervals, and the verdict is the last look's. By its design calculations, the last look would support H2 with probability about 0.79 if the rates seen for 2024 to 2026 were the truth, and about 0.32 if the pooled rates were. A separate AI review agent acting as methods referee, directed by the author, read the draft plan twice before it was frozen. The plan, its token and its design calculations are in the deposit.

What the checking could not reach. The generalized variance functions assume that the lending series' design effect applies to occupation groups. The person identifier used for the bootstrap and for counting people (household identifier, household number and line number) was not checked against age and sex across months.

Appendix B. Data

The deposit holds: the download-and-count scripts for 2020 to 2022 and for 2020 to 2026; the eight record layouts and the parser that read them; the monthly aggregates on both measures for five groups; the public-use person-month rows (for dietitians, selected fields of each record, including the survey's household and person identifiers; for other healthcare practitioners, a person key built from those identifiers, the weight and two flags); the published series read from the Bureau's data interface, and the values read from its annual tables 11 and 36; the variance parameters as retrieved, and a listing of the Census folders showing no replicate-weight files; the H1 test, the results scripts and the post-review descriptive checks, with their outputs; the figure code; the frozen plan, clarifications and deviation with their timestamp tokens (the plan in its redacted deposit copy, as stated under Data availability); the follow-up plan frozen on September 30, 2026, with its timestamp token, its design calculations and the folder listing read at the freeze; this report's text; the verification sheet and the addendum for version 1.1; the gate and the records of its runs; and the comparator extension in `analysis/A07_comparators/`, with its code, its outputs and the person-month rows of six other professions.

Appendix C. Detail moved from the main text

The search. PubMed, September 30, 2026, at 00:52 UTC: (dietitian*[tiab] OR nutritionist*[tiab] OR dietetic*[tiab]) AND ("multiple job*"[tiab] OR moonlight*[tiab] OR "second job*"[tiab] OR "side business"[tiab] OR "secondary employment"[tiab]) returned 0 records. Two broader PubMed queries, on multiple jobholding among nurses and health workers and on multiple jobholding by occupation or in the Current Population Survey, returned 34 and 12 records; the Drost, Vleminckx and Matiwane studies came from the first. After review, a methods referee pointed to the multiple-jobholding literature in labor economics, from which Paxson and Sicherman, Hirsch, Husain and Winters, and Abraham and colleagues are cited. Three OpenAlex queries the same day returned 4, 362 and 1,018 records; the 4, and the top 25 of each larger set by OpenAlex relevance, were screened on titles, and the Baughman and Panos studies came from them. Lalé's article was not returned by these searches; the author added it, and its details were confirmed at Crossref. An OpenAlex search of titles and abstracts at 02:46 UTC, for dietitian or dietician terms with multiple-job terms, returned six records; the only related one is the Russian staffing study in section 1.3.

The direct question. On the survey's direct question, the pooled rates were 10.40 percent for dietitians and nutritionists, 6.97 for other healthcare practitioners, 5.86 for registered nurses and 5.13 for all employed people; the difference from other healthcare practitioners was 3.44 points (0.14 to 6.74).

Further limitations. The occupation of the main job is the respondent's report, coded by the Census Bureau. Proxy responses by another household member are included, as in the Bureau's published estimates. Other healthcare practitioners are dominated by registered nurses and other large occupations; the six comparators of the other reports in this series, and smaller professions where private practice is common, were not compared one at a time. The composite weight is designed for monthly labor force estimates, and its use for shares within small occupation groups follows common practice rather than a published Bureau method. The outgoing-rotation weight was not used as a check on the second-job figures. The monthly survey files were downloaded, counted and not kept; the pull log records each file's size but not its hash, so a rerun downloads them afresh.