# CES National Benchmark Article

BLS Establishment Survey National Estimates Revised to Incorporate March 2025 Benchmarks

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# Summary of the revisions

With the release of January 2026 data on February 11, 2026, the Bureau of Labor Statistics (BLS) introduced its annual revision to national estimates of employment, hours, and earnings from the Current Employment Statistics (CES) monthly survey of nonfarm establishments.

The March 2025 benchmarked, seasonally adjusted employment level for total nonfarm employment is 158,377,000. The not seasonally adjusted benchmarked employment level is 157,540,000.

Compared with the sample-based, seasonally adjusted published estimate for March 2025, total nonfarm employment had a revision of -898,000 or -0.6 percent. The not seasonally adjusted total nonfarm employment estimate was revised by -861,000 or -0.5 percent.

Table 1 presents revised total nonfarm employment data on a seasonally adjusted basis for January 2025 through December 2025. The revised data for April 2025 forward incorporate the effect of applying the rate of change measured by the sample to the new benchmark employment level, as well as updated net birth-death model forecasts and new seasonal adjustment factors. Revisions to November and December also reflect the incorporation of additional sample receipts. For more information about the methodology of benchmarking in the CES program, see Benchmark in the Calculations section of the CES Handbook of Methods.

*Table 1. Differences in seasonally adjusted levels and over-the-month changes, total nonfarm employment, January to December 2025 (in thousands)*

| 2025 | Levels | | | Over-the-month Changes | | |
|---|---|---|---|---|---|---|
| | As Revised | As Previously Published | Difference | As Revised | As Previously Published | Difference |
| January | 158,268 | 159,053 | -785 | -48 | 111 | -159 |
| February | 158,310 | 159,155 | -845 | 42 | 102 | -60 |
| March | 158,377 | 159,275 | -898 | 67 | 120 | -53 |
| April | 158,485 | 159,433 | -948 | 108 | 158 | -50 |
| May | 158,498 | 159,452 | -954 | 13 | 19 | -6 |
| June | 158,478 | 159,439 | -961 | -20 | -13 | -7 |
| July | 158,542 | 159,511 | -969 | 64 | 72 | -8 |
| August | 158,472 | 159,485 | -1,013 | -70 | -26 | -44 |
| September | 158,548 | 159,593 | -1,045 | 76 | 108 | -32 |
| October | 158,408 | 159,420 | -1,012 | -140 | -173 | 33 |
| November | 158,449 | 159,476 | -1,027 | 41 | 56 | -15 |
| December[(p)] | 158,497 | 159,526 | -1,029 | 48 | 50 | -2 |

**Footnotes**
[(p)] Preliminary

# Overview

Establishment survey benchmarking is done each year to align employment estimates from the survey with employment counts derived primarily from the administrative file of employees

covered by Unemployment Insurance (UI). All employers covered by UI laws are required to report employment and wage information to the appropriate state UI agency four times per year. The UI data are obtained and edited by each state's Labor Market Information agency. They are tabulated and published through the BLS Quarterly Census of Employment and Wages (QCEW) program. Both the QCEW and CES categorize their data using the North American Industry Classification System (NAICS). About 97 percent of total nonfarm employment within the scope of the establishment survey is covered by UI and is available to the CES program via QCEW records.

An employment count for the remaining 3 percent is constructed from other sources, primarily records from the Railroad Retirement Board and U.S. Census Bureau data from County Business Patterns and the Annual Survey of Public Employment and Payroll. This 3 percent is referred to as noncovered employment. The combination of QCEW and noncovered employment data make up the benchmark level. The full benchmark employment level developed for March replaces the March sample-based estimate for each basic cell.

The total annual revision is the difference between the benchmark level for a given March and the published March sample-based employment estimate. The overall accuracy of the establishment survey is usually gauged by the size of the benchmark revision, which is often regarded as a proxy for total survey error. Typically, the total revision is equal to the benchmark revision. However, in years with historical reconstructions, affected CES series are re-estimated prior to benchmarking. The benchmark revision, in these cases, is the difference between the benchmark level and the newly reconstructed sample-based estimate. The benchmark revision is the difference between two independently derived employment counts, each subject to its own error sources.

To create a continuous time series between the new March benchmark level and historical sample-based data from the prior March benchmark level, employment estimates for the months between the most recent March benchmark and the previous year's benchmark are adjusted using a linear "wedge-back" procedure. This procedure assumes that the total estimation error accumulated at a steady rate since the last benchmark. For the 9 months following the March benchmark (also called the post-benchmark period), BLS applies previously derived over-the-month sample changes to the revised March level to get the revised estimates. New net birth-death model forecasts are also calculated and applied during post-benchmark estimation. More information on benchmarks in the CES program is available in Benchmark in the Calculation section of the CES Handbook of Methods.

## Benchmark level adjustments to taxi and limousine services

During benchmark processing, the CES program found a substantial increase in first quarter 2025 QCEW employment for taxi and limousine services (NAICS 485300). CES concluded that the additional employment for this industry should not be used in CES benchmarking at this time, pending further research. The inclusion of the QCEW data would have increased the benchmark for taxi and limousine services (43-485300) by approximately 83,200. The final benchmark revision to CES not seasonally adjusted all employees for taxi and limousine services (43-485300) was 10,400.

# Seasonally adjusted estimates

BLS seasonally adjusts 5 years of CES data with each annual benchmark for all industries and directly estimated data types. However, reconstructed series are seasonally adjusted over their revised time spans if the revised timespan is greater than 5 years. More information about seasonal adjustment of CES series is available on the CES Seasonal Adjustment webpage.

Table 2 presents revised employment data on a seasonally adjusted basis for March 2025 by major industry sector. The revision to seasonally adjusted total nonfarm employment is -898,000.

*Table 2. Seasonally adjusted employment revisions for major industry sectors, March 2025 (in thousands)*

| CES Industry Code | CES Industry Title | As Revised | As Previously Published | Differences | |
| --- | --- | --- | --- | --- | --- |
| | | | | Amount | Percent |
| 00-000000 | Total nonfarm | 158,377 | 159,275 | -898 | -0.6 |
| 05-000000 | Total private | 134,818 | 135,682 | -864 | -0.6 |
| 06-000000 | Goods-producing | 21,559 | 21,691 | -132 | -0.6 |
| 07-000000 | Service-providing | 136,818 | 137,584 | -766 | -0.6 |
| 08-000000 | Private service-providing | 113,259 | 113,991 | -732 | -0.6 |
| 10-000000 | Mining and logging | 620 | 624 | -4 | -0.6 |
| 20-000000 | Construction | 8,273 | 8,303 | -30 | -0.4 |
| 30-000000 | Manufacturing | 12,666 | 12,764 | -98 | -0.8 |
| 31-000000 | Durable goods | 7,854 | 7,907 | -53 | -0.7 |
| 32-000000 | Nondurable goods | 4,812 | 4,857 | -45 | -0.9 |
| 40-000000 | Trade, transportation, and utilities | 28,792 | 29,101 | -309 | -1.1 |
| 41-420000 | Wholesale trade | 6,062.0 | 6,176.7 | -114.7 | -1.9 |
| 42-000000 | Retail trade | 15,457.5 | 15,585.8 | -128.3 | -0.8 |
| 43-000000 | Transportation and warehousing | 6,671.7 | 6,742.1 | -70.4 | -1.1 |
| 44-220000 | Utilities | 600.4 | 596.8 | 3.6 | 0.6 |
| 50-000000 | Information | 2,867 | 2,938 | -71 | -2.5 |
| 55-000000 | Financial activities | 9,201 | 9,238 | -37 | -0.4 |
| 60-000000 | Professional and business services | 22,457 | 22,583 | -126 | -0.6 |
| 65-000000 | Private education and health services | 27,132 | 27,123 | 9 | [1] |
| 70-000000 | Leisure and hospitality | 16,823 | 16,976 | -153 | -0.9 |
| 80-000000 | Other services | 5,987 | 6,032 | -45 | -0.8 |
| 90-000000 | Government | 23,559 | 23,593 | -34 | -0.1 |

**Footnotes**
[1] Absolute revision is less than 0.05 percent.

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# Not seasonally adjusted estimates

Benchmark employment levels for March are compared to CES estimates that have not been seasonally adjusted to calculate the new March employment level. Twenty-one months of not seasonally adjusted CES estimates for all data types are revised based on this new March level,

prior to seasonal adjustment. Revisions to not seasonally adjusted CES estimates are described below.

## Not seasonally adjusted revisions

Table 3 presents the not seasonally adjusted employment revisions for March 2025 by major industry sector. The total revision to not seasonally adjusted total nonfarm employment is -862,000.

*Table 3. Not seasonally adjusted total employment revisions for major industry sectors, March 2025 (in thousands)*

| CES Industry Code | CES Industry Title | Benchmark | Estimate | Differences | |
|---|---|---|---|---|---|
| | | | | Amount | Percent |
| 00-000000 | Total nonfarm | 157,540 | 158,402 | -862 | -0.5 |
| 05-000000 | Total private | 133,646 | 134,491 | -845 | -0.6 |
| 06-000000 | Goods-producing | 21,284 | 21,404 | -120 | -0.6 |
| 07-000000 | Service-providing | 136,256 | 136,998 | -742 | -0.5 |
| 08-000000 | Private service-providing | 112,362 | 113,087 | -725 | -0.6 |
| 10-000000 | Mining and logging | 615 | 619 | -4 | -0.7 |
| 20-000000 | Construction | 8,049 | 8,071 | -22 | -0.3 |
| 30-000000 | Manufacturing | 12,620 | 12,714 | -94 | -0.7 |
| 31-000000 | Durable goods | 7,831 | 7,882 | -51 | -0.7 |
| 32-000000 | Nondurable goods | 4,789 | 4,832 | -43 | -0.9 |
| 40-000000 | Trade, transportation, and utilities | 28,554 | 28,862 | -308 | -1.1 |
| 41-420000 | Wholesale trade | 6,040.6 | 6,153.6 | -113 | -1.9 |
| 42-000000 | Retail trade | 15,301.8 | 15,429.1 | -127.3 | -0.8 |
| 43-000000 | Transportation and warehousing | 6,612.3 | 6,683.7 | -71.4 | -1.1 |
| 44-220000 | Utilities | 599.5 | 595.7 | 3.8 | 0.6 |
| 50-000000 | Information | 2,856 | 2,921 | -65 | -2.3 |
| 55-000000 | Financial activities | 9,145 | 9,180 | -35 | -0.4 |
| 60-000000 | Professional and business services | 22,220 | 22,351 | -131 | -0.6 |
| 65-000000 | Private education and health services | 27,231 | 27,222 | 9 | [1] |
| 70-000000 | Leisure and hospitality | 16,406 | 16,558 | -152 | -0.9 |
| 80-000000 | Other services | 5,950 | 5,993 | -43 | -0.7 |
| 90-000000 | Government | 23,894 | 23,911 | -17 | -0.1 |

**Footnotes**
[1] Absolute revision is less than 0.05 percent.

Benchmarks for more detailed industries are available on the CES detailed industry tables webpage.

Table 4 below shows the recent history of not seasonally adjusted total nonfarm percent and level benchmark revisions. Over the prior 10 years, the annual benchmark revision at the total nonfarm level has averaged 0.2 percent (in absolute terms), with an absolute range of less than 0.05 percent to 0.4 percent.

The differences listed in table 4 and beyond reflect the error due to normal benchmarking procedures after the incorporation of reconstructions. Those years are footnoted.

*Table 4. Percent and level differences between nonfarm employment benchmarks and estimates by industry supersector (thousands), March 2015 to 2025*

| CES Industry Code | CES Industry Title | Type | 2015[1] | 2016 | 2017[2] | 2018[3] | 2019[4] | 2020 | 2021 | 2022[5] | 2023 | 2024[6] | 2025[7] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00-000000 | Total nonfarm | Percent | -0.1 | -0.1 | 0.1 | [8] | -0.3 | -0.1 | [8] | 0.3 | -0.1 | -0.4 | -0.5 |
| | | Level | -172 | -81 | 135 | -16 | -489 | -121 | -7 | 506 | -187 | -598 | -861 |
| 05-000000 | Total private | Percent | -0.2 | -0.1 | 0.1 | -0.1 | -0.4 | -0.1 | -0.2 | 0.5 | -0.2 | -0.5 | -0.6 |
| | | Level | -232 | -151 | 133 | -104 | -505 | -184 | -256 | 607 | -249 | -635 | -844 |
| 10-000000 | Mining and logging | Percent | -2.2 | -3.2 | -4.6 | -1.1 | -2.1 | -4 | -11.5 | -3.1 | [8] | -1.6 | -0.7 |
| | | Level | -19 | -22 | -30 | -8 | -15 | -27 | -63 | -18 | [8] | -10 | -4 |
| 20-000000 | Construction | Percent | 0.6 | 0.7 | 0.8 | 0.6 | -0.1 | [8] | -0.6 | 0.9 | 0.6 | -0.4 | -0.3 |
| | | Level | 39 | 47 | 52 | 44 | -4 | 2 | -41 | 70 | 44 | -32 | -22 |
| 30-000000 | Manufacturing | Percent | -0.1 | 0.5 | 0.1 | -0.1 | [8] | -0.6 | -0.3 | 0.2 | -0.3 | -0.5 | -0.7 |
| | | Level | -12 | 58 | 15 | -18 | -4 | -75 | -42 | 22 | -44 | -65 | -94 |
| 40-000000 | Trade, transportation, and utilities | Percent | [8] | -0.4 | 0.3 | -0.3 | -0.4 | 0.1 | 1.1 | 0.1 | -0.1 | -0.3 | -1.1 |
| | | Level | -5 | -110 | 75 | -77 | -117 | 24 | 307 | 32 | -35 | -88 | -308 |
| 41-420000[9] | Wholesale trade | Percent | -0.7 | -1.1 | -0.4 | -0.9 | -0.7 | -0.8 | -0.4 | 1.7 | 0.8 | -0.5 | -1.9 |
| | | Level | -41.3 | -66.6 | -21.2 | -54.4 | -38.6 | -48 | -23.6 | 101.1 | 49.8 | -28.8 | -113 |
| 42-000000[9] | Retail trade | Percent | -0.2 | -0.8 | 0.1 | -0.6 | -1 | -0.5 | 0.4 | -1.6 | 0.3 | -0.8 | -0.8 |
| | | Level | -23.5 | -118.2 | 15.4 | -96.4 | -150.8 | -78.3 | 57.9 | -252.2 | 42.6 | -125.7 | -127.3 |
| 43-000000[9] | Transportation and warehousing | Percent | 1.4 | 1.7 | 1.6 | 1.4 | 1.4 | 2.6 | 4.5 | 2.6 | -2.2 | 1 | -1.1 |
| | | Level | 65.3 | 83.5 | 79.8 | 72.7 | 75.8 | 148.9 | 270.1 | 170.1 | -145.1 | 64.8 | -71.4 |
| 44-220000[9] | Utilities | Percent | -0.8 | -1.6 | 0.2 | 0.3 | -0.7 | 0.2 | 0.5 | 2.4 | 3.1 | 0.2 | 0.6 |
| | | Level | -4.7 | -8.7 | 1 | 1.8 | -4.1 | 1.1 | 2.8 | 13.3 | 17.5 | 1.3 | 3.8 |
| 50-000000 | Information | Percent | -1.6 | -0.1 | 2.5 | 2.1 | 1.2 | 0.5 | 3 | 2.7 | -1.2 | -2.1 | -2.3 |
| | | Level | -44 | -2 | 70 | 59 | 35 | 14 | 84 | 80 | -36 | -63 | -65 |
| 55-000000 | Financial activities | Percent | -0.1 | [8] | 0.1 | -0.1 | 0.8 | 0.3 | -0.7 | 1.1 | 0.6 | -0.8 | -0.4 |
| | | Level | -9 | -4 | 7 | -12 | 68 | 25 | -64 | 94 | 55 | -76 | -34 |
| 60-000000 | Professional and business services | Percent | -0.6 | -0.6 | -1.3 | -0.4 | -0.8 | -0.6 | 1 | 1 | -0.5 | -1.7 | -0.6 |
| | | Level | -110 | -125 | -270 | -72 | -159 | -123 | 218 | 230 | -113 | -380 | -131 |
| 65-000000 | Private education and health services | Percent | [8] | -0.4 | 0.3 | [8] | -0.4 | -0.2 | 0.5 | -0.3 | -0.2 | 0.5 | [8] |
| | | Level | -7 | -83 | 70 | 5 | -95 | -47 | 125 | -69 | -46 | 143 | 9 |
| 70-000000 | Leisure and hospitality | Percent | -0.3 | 0.7 | 0.8 | [8] | -1.1 | 0.2 | -4.4 | 1.1 | -0.2 | -0.7 | -0.9 |
| | | Level | -45 | 102 | 126 | -4 | -170 | 31 | -572 | 161 | -29 | -116 | -152 |
| 80-000000 | Other services | Percent | -0.4 | -0.2 | 0.3 | -0.4 | -0.8 | -0.1 | -3.9 | 0.1 | -0.8 | 0.9 | -0.7 |
| | | Level | -20 | -12 | 18 | -21 | -44 | -8 | -208 | 5 | -45 | 52 | -43 |
| 90-000000 | Government | Percent | 0.3 | 0.3 | [8] | 0.4 | 0.1 | 0.3 | 1.1 | -0.5 | 0.3 | 0.2 | -0.1 |
| | | Level | 60 | 70 | 2 | 88 | 16 | 63 | 249 | -101 | 62 | 37 | -17 |

**Footnotes**

(1) With the 2015 benchmark, CES reconstructed the national employment series 65-624120, services for the elderly and persons with disabilities back to January 2000. CES previously reconstructed this series with the 2013 benchmark; however, between the 2013 and 2015 benchmark, a better source of information for the employment within NAICS 62412 for the state of California was found. The inclusion of the reconstructed series resulted in total nonfarm and total private employment that was 27,000 less than the originally published March 2015 estimate level. The difference between the benchmarked and originally published March 2015 estimate level is -199,000 or -0.1 percent. This table displays March 2015 data after accounting for the decrease of 27,000 from the reconstructed series. Similarly, for the private education and health services supersector, this table displays March 2015 data after incorporating the reconstructed series. For more information about this reconstruction, see the Reconstruction section of the [2015 CES Benchmark Article](#).

(2) With the 2017 benchmark, CES reconstructed the national employment series 60-561613, security guards and patrols and armored car services back to October 2016 to correct a microdata error. The inclusion of the reconstructed series resulted in total nonfarm and total private employment that was 3,000 more than the originally published March 2017 estimate level. The difference between the benchmarked and originally published March 2017 estimate level is 138,000 or 0.1 percent. This table displays March 2017 data after accounting for the increase of 3,000 from the reconstructed series. Similarly, for the professional and business services supersector, this table displays March 2017 data after incorporating the reconstructed series. For more information, see the Reconstructions section in the [2017 CES Benchmark Article](#).

(3) With the 2018 benchmark, CES reconstructed several national employment series. A recoding effort in the QCEW resulted in about 336,000 in employment in wholesale trade agents and brokers (41-425120) moved into other series within the wholesale trade, retail trade, transportation and warehousing, and professional and business services major industry sectors. Affected basic-level series were reconstructed for their entire history, generally back to January 1990. Additionally, a reclassification of a state employer to private ownership caused a shift of about 17,000 in employment from the CES series other state government (90-922999) into services for the elderly and persons with disabilities (65-624120). Affected basic-level series were reconstructed from March 2018 back to January 2018. For more information about this reconstruction, see the Reconstruction section in the [2018 CES Benchmark Article](#).

(4) With the 2019 benchmark, CES reconstructed some national employment series in transportation to correct an error in rail transportation (43-482000), which had resulted in 16,000 in employment being double counted. The reconstruction removed the doubled-counted employment and affected aggregates of rail transportation, up to and including total nonfarm, back to January 1990. While the difference between the benchmarked and originally published March 2019 estimate level is -505,000, or -0.3 percent, this table displays March 2019 data after accounting for the removal of 16,000 from the published series. For more information, see the Reconstructions section in the [2019 CES Benchmark Article](#).

(5) With the 2022 benchmark, CES reconstructed several national employment series. A recoding effort in the QCEW resulted in about 68,000 in employment in electronic shopping and mail-order houses (42-454100) being moved into corporate, subsidiary, and regional managing offices (60-551114). Affected series were reconstructed for their entire history going back to January 1990. Additionally, the CES program found that some QCEW employment microdata submitted for services for the elderly and persons with disabilities (NAICS 624120) was erroneously reported for the first quarter of 2022. CES imputed the March 2022 level for this industry, and the new level was approximately 83,000 greater than the originally reported QCEW level. For more information, see the Reconstructions and Adjustments to population data sections in the [2022 CES Benchmark Article](#).

(6) With the 2024 benchmark, CES reconstructed several national employment series. A recoding of establishments in the QCEW resulted in about 50,000 in employment in computer and peripheral equipment manufacturing (31-334100) being moved into corporate, subsidiary, and regional managing offices (60-551114). Affected series were reconstructed for their history going back to January 2005. For more information, see the Reconstructions section in the [2024 CES Benchmark Article](#).

(7) With the 2025 benchmark, CES did not include approximately 83,200 in QCEW employment in the benchmark revision amount for taxi and limousine services (43-485300). For more information, see the Benchmark level adjustments to taxi and limousine services section in the [2025 CES Benchmark Article](#). CES also removed some

employment from the monetary authorities-central bank (55-521000) industry and put it in commercial banking (55-522110). The change involved ratio adjusting the industries back to 1990 and re-estimating CES series forward from new March 2024 benchmark amounts. For more information, see the Reconstructions section in the [2025 CES Benchmark Article](#).

(8)    Absolute revision is less than 0.05 percent or less than 500 employees.

(9)    Indented series are part of trade, transportation, and utilities.

# Benchmark revision effects for other data types

Benchmarking also affects the series for production and nonsupervisory employees (PE) and women employees (WE). There are no benchmark employment levels for these series; they are revised by preserving ratios of employment for the particular data type to the all employee (AE) level prior to benchmarking, and then applying these ratios to the revised all employee level. These figures are calculated at the basic cell level and then aggregated to produce the summary estimates. Average weekly hours (AWH), average hourly earnings (AHE), and, in manufacturing industries, average weekly overtime hours (AWOH) are not benchmarked; they are estimated solely from reports supplied by survey respondents at the basic estimating cell level. New employment benchmarks can additionally affect indirectly estimated data types. For more information on indirectly estimated data types, see Derivative data in the Calculations section of the CES Handbook of Methods.

Table 5 lists directly estimated data types and their common abbreviations. Directly estimated data types except for AE are collectively called non-AE data types.

*Table 5. Directly estimated data types*

| Data Type | Abbreviation |
|---|---|
| All employees | AE |
| Production and nonsupervisory employees | PE |
| Women employees | WE |
| Average weekly hours of all employees | AE AWH |
| Average hourly earnings of all employees | AE AHE |
| Average weekly overtime hours of all employees | AE AWOH |
| Average weekly hours of production and nonsupervisory employees | PE AWH |
| Average hourly earnings of production and nonsupervisory employees | PE AHE |
| Average weekly overtime hours of production and nonsupervisory employees | PE AWOH |

The aggregate industry levels of the hours and earnings series are derived as a weighted average. AE and PE estimates for basic cells act as weights for their respective hours and earnings estimates for broader industry groupings. Adjustments of AE estimates to new benchmarks may alter the implicit weights used for both AE and PE hours and earnings, which, in turn, may change the estimates for both AE and PE hours and earnings at higher levels of aggregation.

Generally, new employment benchmarks have little effect on hours and earnings estimates for major industry groupings. To influence the hours and earnings estimates of a broader industry group, employment revisions must be relatively large and must affect industries that have hours or earnings averages that are substantially different from those of other industries in their broader group.

Table 6 and table 7 provide information on the not seasonally adjusted levels of major industry sector hours and earnings series resulting from the March 2025 benchmark. At the total private level, there was no change in average weekly hours estimates for AE and PE from the previously

published level. Total private average hourly earnings increased by 6 cents for AE and 5 cents for PE from the previously published level.

Benchmark effects on hours and earnings for more detailed industries are available in the CES detailed industry tables.

*Table 6. Effect of March 2025 benchmark revisions to all employee average weekly hours and average hourly earnings estimates, major industry sectors*

| CES Industry Code | CES Industry Title | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|
| | | Estimated | Revised | Difference | Estimated | Revised | Difference |
| 05-000000 | Total private | 34.5 | 34.5 | 0 | $36.22 | $36.28 | $0.06 |
| 06-000000 | Goods-producing | 40 | 40 | 0 | 36.81 | 36.83 | 0.02 |
| 08-000000 | Private service-providing | 33.5 | 33.5 | 0 | 36.09 | 36.15 | 0.06 |
| 10-000000 | Mining and logging | 44.2 | 44.2 | 0 | 40.59 | 40.52 | -0.07 |
| 20-000000 | Construction | 39 | 39 | 0 | 39.1 | 39.11 | 0.01 |
| 30-000000 | Manufacturing | 40.4 | 40.4 | 0 | 35.21 | 35.24 | 0.03 |
| 31-000000 | Durable goods | 41 | 41 | 0 | 37.39 | 37.43 | 0.04 |
| 32-000000 | Nondurable goods | 39.4 | 39.4 | 0 | 31.5 | 31.5 | 0 |
| 40-000000 | Trade, transportation, and utilities | 34 | 34 | 0 | 30.75 | 30.72 | -0.03 |
| 41-420000 | Wholesale trade | 39.5 | 39.5 | 0 | 38.34 | 38.29 | -0.05 |
| 42-000000 | Retail trade | 29.7 | 29.7 | 0 | 25.24 | 25.23 | -0.01 |
| 43-000000 | Transportation and warehousing | 38.1 | 38.1 | 0 | 31.29 | 31.3 | 0.01 |
| 44-220000 | Utilities | 42.2 | 42.2 | 0 | 52.48 | 52.43 | -0.05 |
| 50-000000 | Information | 37.8 | 38 | 0.2 | 51.88 | 52.01 | 0.13 |
| 55-000000 | Financial activities | 38.5 | 38.5 | 0 | 47.34 | 47.38 | 0.04 |
| 60-000000 | Professional and business services | 36.9 | 36.9 | 0 | 44.23 | 44.23 | 0 |
| 65-000000 | Private education and health services | 33 | 32.9 | -0.1 | 35.11 | 35.27 | 0.16 |
| 70-000000 | Leisure and hospitality | 25.8 | 25.8 | 0 | 22.8 | 22.78 | -0.02 |
| 80-000000 | Other services | 32.1 | 32.1 | 0 | 32.71 | 33.06 | 0.35 |

*Table 7. Effect of March 2025 benchmark revisions to production and nonsupervisory employee average weekly hours and average hourly earnings estimates, major industry sectors*

| CES Industry Code | CES Industry Title | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|
| | | Estimated | Revised | Difference | Estimated | Revised | Difference |
| 05-000000 | Total private | 33.8 | 33.8 | 0 | $31.13 | $31.18 | $0.05 |
| 06-000000 | Goods-producing | 40.7 | 40.7 | 0 | 32.07 | 32.08 | 0.01 |
| 08-000000 | Private service-providing | 32.7 | 32.7 | 0 | 30.94 | 31 | 0.06 |
| 10-000000 | Mining and logging | 44.5 | 44.5 | 0 | 37.61 | 37.56 | -0.05 |
| 20-000000 | Construction | 39.7 | 39.7 | 0 | 36.6 | 36.6 | 0 |
| 30-000000 | Manufacturing | 41.2 | 41.2 | 0 | 28.9 | 28.91 | 0.01 |
| 31-000000 | Durable goods | 41.6 | 41.6 | 0 | 30.62 | 30.63 | 0.01 |
| 32-000000 | Nondurable goods | 40.6 | 40.6 | 0 | 26.23 | 26.23 | 0 |
| 40-000000 | Trade, transportation, and utilities | 34.1 | 34.1 | 0 | 26.61 | 26.6 | -0.01 |
| 41-420000 | Wholesale trade | 39.4 | 39.4 | 0 | 31.83 | 31.79 | -0.04 |
| 42-000000 | Retail trade | 30.2 | 30.2 | 0 | 21.37 | 21.37 | 0 |
| 43-000000 | Transportation and warehousing | 37.7 | 37.7 | 0 | 29.79 | 29.81 | 0.02 |
| 44-220000 | Utilities | 42.3 | 42.3 | 0 | 46.2 | 46.19 | -0.01 |
| 50-000000 | Information | 36.3 | 36.6 | 0.3 | 42.88 | 43.03 | 0.15 |
| 55-000000 | Financial activities | 38 | 38 | 0 | 37.06 | 37.08 | 0.02 |
| 60-000000 | Professional and business services | 36.8 | 36.8 | 0 | 37.18 | 37.18 | 0 |
| 65-000000 | Private education and health services | 31.9 | 31.9 | 0 | 32.37 | 32.5 | 0.13 |
| 70-000000 | Leisure and hospitality | 24.3 | 24.3 | 0 | 20.13 | 20.11 | -0.02 |
| 80-000000 | Other services | 31 | 31 | 0 | 28.46 | 28.82 | 0.36 |

# Net birth-death revisions

The difference between CES estimates and the population employment results from various sources. Disaggregating it into its components is complex. Both data sources are subject to nonresponse error and reporting error. Additionally, the CES estimates are subject to sampling error and business birth and death modeling error.

The CES sample alone is not sufficient for estimating the total nonfarm employment level because each month, new establishments generate employment that cannot be captured through the sample. There is an unavoidable lag between an establishment opening for business and its appearance on the CES sample frame. The sample frame is built from UI quarterly tax records. These records cover virtually all U.S. employers and include business births, but they only become available for updating the CES sampling frame 7 to 9 months after the reference month. After the births appear on the frame, there is also time required for sampling, contacting, and soliciting cooperation from the establishments, and verifying the initial data provided. In practice, BLS cannot sample and begin to collect data from new establishments until they are at least a year old.

BLS has researched both sample-based and model-based approaches to measuring employment from business births and deaths that have not yet appeared on the UI universe frame. The research demonstrated that sampling for births was not feasible in the very short CES production timeframes, so BLS uses a model-based approach to account for this employment. This model incorporates two components. The first component is an indirect imputation for business deaths. The second component is an autoregressive integrated moving average (ARIMA) time series model designed to estimate the net birth-death employment not accounted for by the imputation from the first component. More information on the CES birth-death model is available in Business births and deaths in the Calculation section of the CES Handbook of Methods.

An analysis of error in the birth-death model and the effect of those errors on CES estimation follows.

# Forecasted vs. actual net birth-death

Only error from the model-based component of CES estimation is directly measurable. Error from this component is measured by comparing the actual net of births and deaths with the model-based forecast that was used in the CES sample-based estimates during the previous benchmark year. Most recently, the data from April 2024 to March 2025 can be measured. As table 8 shows, the actual net birth-death from April 2024 to March 2025 was approximately 117,000 below the forecast used in the CES monthly estimates for the same period.

*Table 8. Differences between forecasted and actual net birth-death, total private, April 2024 to March 2025 (in thousands)*

| Benchmark 2025 | 2024 | | | | | | | | | 2025 | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | |
| Actual Net Birth-Death | 403 | 131 | -32 | 272 | 73 | -199 | 441 | -11 | -132 | -2 | 126 | -85 | 985 |
| Forecast Net Birth-Death | 384 | 189 | 26 | 249 | 70 | -129 | 349 | 12 | -46 | -105 | 136 | -33 | 1,102 |
| Difference | 19 | -58 | -58 | 23 | 3 | -70 | 92 | -23 | -86 | 103 | -10 | -52 | -117 |
| Cumulative Difference | 19 | -39 | -97 | -74 | -71 | -141 | -49 | -72 | -158 | -55 | -65 | -117 | |

# Net birth-death adjustments to the post-benchmark period

From April 2025 to December 2025, also called the post-benchmark period, CES estimates were recalculated for each month based primarily on new benchmark levels and new net birth-death forecasts. Net birth-death forecasts were revised to incorporate information from the most recent year of universe employment counts. Table 9 shows the net birth-death values for the major industry sectors over the post-benchmark period. From April 2025 to December 2025, the net birth-death model cumulatively added 917,000 jobs, compared with 1,160,000 in the previously published April 2025 to December 2025 employment estimates.

*Table 9. Net birth-death forecasts by major industry sector, April to December 2025 (in thousands)*

| CES Industry Code | CES Industry Title | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Cumulative Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-000000 | Mining and logging | 0 | 0 | 0 | -1 | 0 | -1 | 1 | 0 | -1 | -2 |
| 20-000000 | Construction | 34 | 27 | 11 | 7 | 4 | -2 | 20 | -6 | -18 | 77 |
| 30-000000 | Manufacturing | 4 | 6 | -1 | -2 | 3 | 0 | 6 | 2 | -1 | 17 |
| 40-000000 | Trade, transportation, and utilities | 17 | 11 | -7 | 22 | 14 | -9 | 49 | -1 | -10 | 86 |
| 41-420000[1] | Wholesale trade | 4 | 1 | -8 | 5 | 0 | -6 | 15 | 0 | -2 | 9 |
| 42-000000[1] | Retail trade | 12 | 9 | 3 | 11 | 11 | 1 | 23 | -2 | -2 | 66 |
| 43-000000[1] | Transportation and warehousing | 1 | 1 | -2 | 6 | 3 | -4 | 11 | 1 | -6 | 11 |
| 44-220000[1] | Utilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-000000 | Information | 8 | 3 | -3 | 6 | 1 | -4 | 11 | 1 | 0 | 23 |
| 55-000000 | Financial activities | 11 | 4 | -9 | 12 | -3 | -11 | 34 | 0 | 4 | 42 |
| 60-000000 | Professional and business services | 134 | 20 | -43 | 75 | 10 | -45 | 131 | -2 | -37 | 243 |
| 65-000000 | Private education and health services | 65 | 6 | -39 | 67 | 6 | -38 | 80 | 0 | -24 | 123 |
| 70-000000 | Leisure and hospitality | 92 | 90 | 61 | 63 | 23 | -55 | 25 | -24 | -8 | 267 |
| 80-000000 | Other services | 21 | 6 | 1 | 5 | 3 | -5 | 15 | -1 | -4 | 41 |
| **Total private net birth-death forecast** | | 386 | 173 | -29 | 254 | 61 | -170 | 372 | -31 | -99 | 917 |

**Footnotes**
[1] Indented industries are part of trade, transportation, and utilities.

Effective with the release of preliminary January 2026 employment estimates in February, BLS modified the ARIMA-based component of the birth-death model by incorporating current sample information to inform the forecasts. This modification was applied to re-calculated months from April to October 2025, known as the post-benchmark period, as well as to November and December 2025. Starting with January 2026, CES began using birth-death components calculated with this modification for first

preliminary estimates. CES will use the same modified net birth-death forecasts in the two subsequent monthly revisions without further updates. More information about this adjustment is available on the CES birth-death frequently asked questions page.

The sum of net birth-death forecasts for the 7-month post-benchmark period is 185,000 lower than the forecasts used in monthly estimation for the same period. It is 124,000 lower than it would have been had this adjustment not been used. See table 10 below for effects of this birth-death modification on major industry sectors.

In the 2024 post-benchmark period, using this same adjusted birth-death methodology resulted in forecasts that were cumulatively 228,000 less than they otherwise would have been. This reduced the magnitude of the March 2025 benchmark adjustment at the total private level by 229,000.

*Table 10. Comparison of cumulative preliminary, usual post-benchmark, and modified post-benchmark net birth-death forecasts for April to October of 2025 (in thousands)*

| CES Industry Code | CES Industry Title | Forecast | | | Differences | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | | Preliminary | Usual Post-Benchmark | Modified Post-Benchmark | Usual Minus Preliminary | Modified Minus Preliminary | Modified Minus Usual |
| 10-000000 | Mining and logging | 2 | 3 | -1 | 1 | -3 | -4 |
| 20-000000 | Construction | 127 | 114 | 101 | -13 | -26 | -13 |
| 30-000000 | Manufacturing | 29 | 27 | 16 | -2 | -13 | -11 |
| 40-000000 | Trade, transportation, and utilities | 137 | 115 | 97 | -22 | -40 | -18 |
| 41-420000[1] | Wholesale trade | 9 | 12 | 11 | 3 | 2 | -1 |
| 42-000000[1] | Retail trade | 89 | 69 | 70 | -20 | -19 | 1 |
| 43-000000[1] | Transportation and warehousing | 38 | 33 | 16 | -5 | -22 | -17 |
| 44-220000[1] | Utilities | 1 | 1 | 0 | 0 | -1 | -1 |
| 50-000000 | Information | 31 | 26 | 22 | -5 | -9 | -4 |
| 55-000000 | Financial activities | 51 | 52 | 38 | 1 | -13 | -14 |
| 60-000000 | Professional and business services | 305 | 289 | 282 | -16 | -23 | -7 |
| 65-000000 | Private education and health services | 171 | 192 | 147 | 21 | -24 | -45 |
| 70-000000 | Leisure and hospitality | 329 | 311 | 299 | -18 | -30 | -12 |
| 80-000000 | Other services | 50 | 42 | 46 | -8 | -4 | 4 |
| Total private net birth-death forecast | | 1,232 | 1,171 | 1,047 | -61 | -185 | -124 |

**Footnotes**

[1] Indented industries are part of trade, transportation, and utilities.

# Reconstructions

During the 2025 benchmark, CES had one reconstruction that affected two industries: monetary authorities-central banks and commercial banks. The methodology of the reconstruction is described below.

## Monetary authorities-central banks and commercial banking

With the 2024 benchmark, some employment was reclassified and moved out of monetary authorities-central banks (NAICS 521000) and into commercial banking (NAICS 522110). CES data was not reconstructed to address the reclassification at the time, leading to a break in the monetary authorities-central banks time series from April 2023 to March 2024. Commercial banking is a large enough industry that a break was not apparent in its data despite the moved employment. This reconstruction to address the break used pre-benchmark March 2024 as a starting point to move employment, hours, and earnings from monetary authorities-central banks (CES industry code 55521000) and into commercial banking (55522110) and its summary levels, depository credit intermediation (55522100) and credit intermediation and related activities (55522000) using a ratio adjustment.

Once the un-benchmarked data were reconstructed back to 1990, April 2023 to March 2024 were wedged to updated benchmark 2024 levels. These levels were originally calculated using all reports assigned to NAICS 521000 in March 2024. However, this reconstruction involves limiting the reports to only those reports from the 12 central banks and their branches. Other EINs within NAICS 521000 were moved to NAICS 522110 for the benchmark level calculations. Finally, the post-benchmark and intervening monthly estimates were calculated forward from these new levels to build complete time series. New March 2025 levels for monetary authorities-central banks were based on only reports from the 12 central banks and their branches; all other reports were included in the 2025 benchmark for commercial banking.

*Historical ratio adjustment*
Using Q1 2024 Quarterly Census of Employment and Wages data, employment records in monetary authorities-central banks that were not associated with one of the 12 central banks were flagged. These units were used to create a ratio of employment that should be moved from 55521000 into 55522110. Approximately 9.8 percent of the employment originally included in 55521000 was moved to 55522110 from January 1990 to March 2024. For the months from April 2024 to March 2025, employment was reconstructed using the original CES sample links and net birth-death forecasts for both series. Note that for 55521000, CES was already using data from only central banks in the sample links and using birth-death forecasts that are functionally zero, so CES sample and birth-death calculations did not require adjustments.

Only all employees data are published for 55521000, but other data types are produced and were used to move other employment, hours, and earnings data from 55521000 and into 55522110. To do that, the ratio was applied to CES AE, PE, and WE estimates from March 2024 for the history of the series back to 1990 to determine the amount to take out of 55521000. These employment amounts were then added to the employment of 55522110 to get the new totals.

The amount of total hours to move into 55522110 was calculated by multiplying the amount of employment moving out of 555210000 by the AWH for that industry. Total earnings to move out of 55521000 was calculated by multiplying the total hours moving to 55522110 by AHE for 55521000. These formulas apply to both AE and PE hours and earnings. The parts of total hours and total earnings moved were summed with the original total hours and total earnings for 55522110. Those new total hours and total earnings were then averaged using the new employment levels for 55522110. The AWH and AHE for 55522110, therefore, did change due to the reconstruction. More information about the calculation of CES employment, hours, and earnings estimates is available in the Handbook of Methods under Monthly Estimation.

### *Recalculating the 2024 benchmark for affected industries*
To align our reconstructed series with the data published with the 2024 benchmark, the series were wedged from April 2023 to March 2024 using March 2024 population numbers that only included the reports associated with monetary authorities-central banks. The benchmark values for these industries are slightly different from the original benchmark levels because they only contain units that should have been associated with NAICS 521000.

The wedge amount is the difference between our reconstructed March 2024 estimate and the March 2024 benchmark value created using only the correct units for NAICS 521000. The wedge amount after reconstructing the CES series and updating the benchmark level for monetary authorities-central banks was -800 in employment. For commercial banks, it was 11,900 in employment.

The wedge was applied to each series in the same manner as a normal wedge during a given benchmark. The total for March was divided by 12, and 1/12 was added to April 2023, 2/12 to May 2023, 3/12 to June, and so on until 11/12 were added to February, and the full amount to March 2024. Other data types were adjusted for the wedge of AE data in accordance with normal benchmarking procedures.

Finally, data were brought forward from the new March 2024 levels to the March 2025 estimates. To do this, existing CES over-the-month change links were applied starting from the new March 2024 level and net birth-death forecasts for subsequent months were added. Each subsequent month's value was calculated using the same process.

The reconstructed, re-wedged, and re-estimated monetary authorities-central banks and commercial banks industries were then used to calculate benchmark revisions for use in the 2025 benchmark. The 2025 benchmarks only include the units associated with the 12 central banks and their branches. All other processing of the 2025 benchmarks for these industries followed normal procedures. However, because of this reconstruction, the CES estimate at the total nonfarm level was 1,000 less than previously published for March 2025. This means that the benchmark revision was 1,000 smaller than it otherwise would have been. Table 3 above shows the difference between the benchmark and the previously published estimate. Table 4 shows the effect of the benchmark revision after accounting for this reconstruction.

## Changes to the CES published series

There are no changes to the current CES series structure due to sample coverage or disclosure review with the benchmark release in February 2026. For more about our usual annual review of series, see the Handbook of Methods under *Coverage* and *Confidentiality*.

## Availability of revised data

LABSTAT, the BLS public database, contains all historical employment, hours, and earnings data revised as a result of this benchmark, including both not seasonally adjusted and seasonally adjusted data. The data can be accessed from the CES National Databases webpage.

Previously published data are available on both a not seasonally adjusted and seasonally adjusted basis for all CES industries down to the 3-digit level from the CES Vintage Data Information webpage. CES vintage data are typically updated in early March following the annual benchmark revision.

Benchmarks for detailed industries can be found in the CES detailed industry tables.

# Table of figures

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