# Revisions in State Establishment-based Employment Estimates Effective January 2025

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# Introduction

With the release of the payroll employment estimates for January 2025 in March 2025, nonfarm payroll employment, hours, and earnings data for states and areas were revised to reflect the incorporation of the 2024 benchmarks and the recalculation of seasonal adjustment factors. The revisions affect all not seasonally adjusted data from April 2023 to December 2024, all seasonally adjusted data from January 2020 to December 2024, and select series subject to historical revisions before April 2023. Also effective with the release of January 2025 estimates, the Current Employment Statistics metropolitan statistical area estimates were updated to reflect the delineations based on the 2020 Census. This article provides background information on benchmarking methods, business birth-death modeling, seasonal adjustment of employment data, effects of changes in statistical area delineations, and details of the effects of the 2024 benchmark revisions on state and area payroll employment estimates.

## Summary of benchmark revisions

The average absolute percentage revision across all states for total nonfarm payroll employment is 0.7 percent for September 2024. For September 2024, the range of the revision for total nonfarm payroll employment across all states is from -2.4 percent to 1.8 percent.

Differences in seasonality exist between the population data and the sample-based data in the nonfarm payroll series. These differences are significant enough that the Current Employment Statistics (CES) program must use a two-step seasonal adjustment process to develop its seasonally adjusted data for states and areas.

Given these differences, the benchmark revisions to the not seasonally adjusted September 2024 estimates are most appropriate to assess the reliability of the estimation process for states and areas since that month is 12 months after the latest population data used with the release of the 2023 benchmark. Over a 12-month period, the seasonal differences between the population and the sample-based data will largely be reconciled in the not seasonally adjusted data.

# Benchmark methods

The CES survey, also known as the payroll or establishment survey, is a federal and state cooperative program that provides timely estimates of payroll employment, hours, and earnings for states and areas by sampling the population of employers. Each month, the CES program surveys about 121,000 businesses and government agencies, representing approximately 631,000 individual worksites. In addition, about 900 businesses, representing approximately 3,300 individual worksites, are surveyed in Puerto Rico and the U.S. Virgin Islands. Survey responses provide detailed industry-level data on employment and the hours and earnings of employees on nonfarm payrolls for all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and about 430 metropolitan areas and divisions.[1]

As with data from other sample surveys, CES payroll employment estimates are subject to both sampling and nonsampling errors. Sampling error is an unavoidable byproduct of forming an inference about a population based on a sample. A larger sample tends to reduce the size of sampling error, while high population variance and employment levels tend to increase it. These factors vary across states and industries. Nonsampling error, by contrast, includes all other sources of statistical errors, including in reporting and processing.

[1] Further information on the sample size for each state is available at https://www.bls.gov/sae/additional-resources/current-employment-statistics-sample-by-state.htm.

To control for both sampling and non-sampling error, CES payroll employment estimates are benchmarked annually to employment counts from a census of the employer population. These counts are derived primarily from employment data provided in unemployment insurance (UI) tax reports that nearly all employers are required to file with state workforce agencies. The UI tax reports are collected, reviewed, and edited as part of the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW) program. As part of the benchmark process for benchmark year 2024, census-derived employment counts replace CES payroll employment estimates for all 50 states and the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and about 430 metropolitan areas and divisions for the period from April 2023 to September 2024.

UI tax reports are not collected on a timely enough basis to replace CES payroll estimates for the fourth quarter, October 2024 to December 2024. For this period, estimates are revised using the new September 2024 series level derived from the census employment counts. From those levels, new sample-based estimates are developed that incorporate updated business birth-death factors and new or revised CES microdata.[2]

## Changes to CES published series

### *Special notice regarding changes to statistical area delineations*

On July 21, 2023, the Office of Management and Budget (OMB) announced changes to statistical area delineations based on the application of new data standards from the 2020 Census. Prior to the release of 2024 benchmark data, CES area definitions were derived from the delineations in OMB Bulletin 18-03. Most 2020 statistical area delineations were the same as those derived from the 2010 Census, but there were some changes. Some areas were added, some were dropped, and the definitions of some areas were changed. The updates created time series breaks within some areas. For areas not previously covered by BLS, no historical data are available. To provide consistent time series to its data users, BLS reconstructed both All Employee (AE) and non-AE time series for all areas affected by the revised delineations, including the creation of new time series for new areas. These updated delineations have been released with the 2024 benchmark.

A comprehensive description of areas, area codes, and standards for new delineations provides a broad perspective of statistical area revisions. Lists of areas that experienced compositional changes, areas that were added, and areas that were dropped are available in the Appendix of this article. Below is a summary of changes by statistical area.

### Summary of changes by statistical area

#### Metropolitan Statistical Areas

Under the revised 2020 OMB statistical area delineations, there are a total of 393 MSAs published by CES. Eighty underwent compositional changes, and three were assigned new names and Federal Information Processing Standards (FIPS) codes (with no compositional change). A total of 27 entirely new MSAs were added, and 12 MSAs were dropped.

#### Metropolitan Divisions

There are 37 Metropolitan Divisions (MD) under the new area delineations. Seven underwent compositional changes, and one was assigned a new name and FIPS code. A total of 11 entirely new divisions were added, and two were dropped.

[2] Further information on the monthly estimation methods of the CES program can be found in the *BLS Handbook of Methods* at https://www.bls.gov/opub/hom/sae/.

### New England County and Town Areas

All 21 New England City and Town Areas (NECTAs) were dropped under the new delineations. New England states added 17 MSAs under the new delineations.

### New England City and Town Divisions

All 10 New England City and Town Area Divisions (NDs) were dropped under the new area delineations. New England states added three MDs under the new delineations.

### Non-standard areas

Under the new area delineations, CES will publish data for one nonstandard area (NSA): New York City, NY. Ten nonstandard areas were dropped.

## AE reconstructions

For the all-employee series, data were reconstructed primarily using data available from the Longitudinal Database (LDB) of the Quarterly Census of Employment and Wages (QCEW) program of BLS. The LDB contains establishment-level microdata, along with administrative records of state, county, township, ownership (federal, state, or local government or private), and industry (based upon the 2022 North American Industry Classification System, or NAICS). These microdata records were mapped by county or county equivalent code at the 6-digit NAICS level according to the 2020 OMB delineations. Monthly microdata were aggregated to publication levels back to 1990 (or the earliest record available) using the most recent administrative records for state, county (or township), NAICS, and ownership.

In the case of revised delineations where counties or townships were either being added or dropped, data for the added or dropped counties or townships were reconstructed and added or dropped from the existing area. This methodology allowed for the use of previously benchmarked data and any prior adjustments to the series whose records were no longer available. For areas never covered by BLS, time series were entirely reconstructed.

In addition to the use of LDB data for microdata aggregation, BLS reconstructions accounted for scope differences between the QCEW and CES programs. Employment available from the LDB covers approximately 97 percent of CES employment, with the remaining being non-covered employment (NCE). Since NCE data are out of scope for the QCEW program, the LDB data could not be used. Moreover, historical NCE data are not constructed by county but rather by area. Therefore, NCE data had to be extrapolated from known relationships to derive county-NAICS level data.[3]

## Non-AE reconstructions

There were two types of reconstructions for non-AE series – new areas and pre-existing areas. New areas have no CES-based non-AE history. Beginning with 2011, total private hours and earnings histories were created for the new areas. Pre-existing areas with revised delineations were reconstructed to accommodate the compositional changes.

All reconstructed series were created using existing sample data and the current methods for calculating non-AE series. To rebuild the history prior to 2011, the monthly average of the ratio of the reconstructed

[3] Further information on non-covered employment in the CES program can be found in the *BLS Handbook of Methods* at https://www.bls.gov/opub/hom/sae/calculation.htm#noncovered-employment.

series to the previously published series from January 2011 to September 2024 was calculated using available sample data. That monthly average ratio was then applied to the previously published history to develop reconstructed histories, including December 2010.

### *Special notice regarding Colorado employment and wages data*

On November 20, 2024, the Quarterly Census of Employment and Wages (QCEW) suspended publication of industry and substate data for Colorado due to data quality concerns with the second-quarter 2024 data. These data quality concerns were due to ongoing issues with the modernization of the state's unemployment insurance (UI) system. Because the QCEW microdata are fundamentally a byproduct of state UI systems, QCEW data quality is sensitive to changes in these systems. The QCEW program resumed publication of Colorado data with the third-quarter 2024 release on February 19, 2025.

During the 2023 benchmark, BLS replaced Colorado's sample-based estimates from April 2022 through June 2023 with administrative data derived from QCEW. BLS calculated employment levels for July 2023 through September 2023 by using the over-the-month percent changes of the estimates for those months because the preliminary version of third-quarter 2023 QCEW Colorado data available at the deadline for establishing the CES benchmark levels showed unusual movements.[4]

As a result, for the 2024 benchmark, BLS replaced Colorado's sample-based estimates from April 2023 through June 2023 and July 2024 through September 2024 with administrative data derived from QCEW. BLS calculated employment levels for July 2023 through June 2024 by using the over-the-month percent changes of the estimates for those months and a standard wedge methodology to address the break between the resulting June 2024 level and the July 2024 level derived from QCEW. Normal estimation procedures, including using new or revised microdata and updated birth-death factors, were resumed for October 2024 through December 2024. This process was also used for the Colorado metropolitan statistical areas.

All summary statistics for revisions presented in this article, including those in table 1 and table 2 (industry), table 4 (areas), exhibit 2, and the appendix, include Colorado or metropolitan areas within the state. Benchmark revisions for Colorado for March, September, and December 2024 are presented in table 3 and the appendix but should be interpreted with caution.

## Net business birth-death modeling

Sample-based estimates are adjusted each month by a statistical model designed to reduce a primary source of nonsampling error: the inability of the sample to capture employment growth generated by new business formations on a timely basis. There is an unavoidable lag between an establishment opening for business and its appearance in the sample frame. Because new firm births generate a portion of employment growth each month, additional methods are used to estimate this growth.

Earlier research indicated that, while both the business birth and death portions of total employment are generally significant, the net contribution is relatively small and stable. To account for this net birth-death portion of total employment, BLS uses an estimation procedure with two components. The first component excludes employment losses due to business deaths from sample-based estimation to offset the missing employment gains from business births. This is incorporated into the sample-based estimation procedure not by reflecting sample units going out of business but rather imputing to them the same

[4] More information about the 2023 benchmark is available at https://www.bls.gov/sae/publications/benchmark-article/archives/annual-benchmark-article-2024.pdf.

employment trend as the other continuing firms in the sample. This step accounts for most of the birth and death changes to employment.[5]

The second component is an autoregressive integrated moving average (ARIMA) time series model designed to estimate the residual birth-death change to employment not accounted for by the imputation. To develop the history for modeling, the same handling of business deaths as described for the CES monthly estimation is applied to the population data. Establishments that go out of business have employment imputed for them based on the rate of change of the continuing units. The employment associated with continuing units and the employment imputed from deaths are aggregated and compared to actual population levels. The differences between the two series reflect the actual residual of births and deaths over the past 5 years. The historical residuals are converted to month-to-month differences and used as input series to the modeling process. Models for the residual series are then fit and forecasted using X-13ARIMA-SEATS software. The residuals exhibit a seasonal pattern and may be negative for some months. This process is performed at the national level and for each individual state. Finally, differences between forecasts of the nationwide birth-death factors and the sum of the states' birth-death factors are reconciled through a ratio-adjustment procedure, and the factors are used in monthly estimation of payroll employment in 2025. The updated birth-death factors are also used as inputs to produce the revised estimates of payroll employment for October 2024 to December 2024.

## Seasonal adjustment

CES state and area payroll employment data are seasonally adjusted by a two-step process.[6] BLS uses the X-13ARIMA-SEATS program to remove the seasonal component of employment time series. This process uses the seasonal trends found in census-derived employment counts to adjust historical benchmark employment data while also incorporating sample-based seasonal trends to adjust sample-based employment estimates. These two series are independently adjusted and then spliced together at the benchmark month (in this case September/October 2024).[7] By accounting for the differing seasonal patterns found in historical benchmark employment data and the sample-based employment estimates, this technique yields improved seasonally adjusted series with respect to analysis of month-to-month employment change.[8]

The aggregation method of seasonally adjusted data is based upon the availability of underlying industry data. For all 50 states, the District of Columbia, and Puerto Rico, the following series are sums of underlying industry data: total private, goods producing, service providing, and private service providing. The same method is applied for the U.S. Virgin Islands except for goods producing and private service providing, which are independently seasonally adjusted because of data limitations. For all 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, data for manufacturing; trade, transportation, and utilities; financial activities; education and health services; leisure and hospitality; and government are aggregates wherever exhaustive industry components are available; otherwise, these industries' employment data are directly seasonally adjusted. In a very limited number of cases, the not

[5] Technical information on the estimation methods used to account for employment in business births and deaths is available at https://www.bls.gov/web/empsit/cesbd.htm.
[6] Research from the Dallas Federal Reserve has shown that CES benchmarked population data exhibits a seasonal pattern different from the sample-based estimates. See Berger, Franklin D. and Keith R. Phillips (1994), "Solving the Mystery of the Disappearing January Blip in State Employment Data," Federal Reserve Bank of Dallas, Economic Review, April, 53-62., available at https://www.dallasfed.org/~/media/documents/research/er/1994/er9402d.pdf.
[7] The two-step seasonal adjustment process is explained in detail by Scott, Stuart; Stamas, George; Sullivan, Thomas; and Paul Chester (1994), "Seasonal Adjustment of Hybrid Economic Time Series," available at https://www.bls.gov/osmr/research-papers/1994/pdf/st940350.pdf.
[8] A list of all seasonally adjusted employment series is available at https://www.bls.gov/sae/additional-resources/list-of-published-state-and-metropolitan-area-series/home.htm.

seasonally adjusted data for mining and logging; construction; manufacturing; trade, transportation, and utilities; financial activities; education and health services; leisure and hospitality; and government do not exhibit enough seasonality to be adjusted; in those cases, the not seasonally adjusted data are used to sum to higher level industries. The seasonally adjusted total nonfarm data for all metropolitan statistical areas (MSAs) and metropolitan divisions are not calculated through aggregation but are derived directly by applying the seasonal adjustment procedure to the not seasonally adjusted total nonfarm level.[9]

BLS uses concurrent seasonal adjustment for CES state and area data. This method uses all available estimates, including those for the current month, in developing sample-based seasonal factors.[10] Concurrent sample-based seasonal factors are created every month for the current month's preliminary estimates, as well as the previous month's final estimates. Outlier detection is a regular part of the monthly seasonal adjustment process.

### *Variable survey intervals*

BLS uses special model adjustments to control for survey interval variations, sometimes referred to as the 4 vs. 5-week effect, for all nonfarm seasonally adjusted series. Although the CES survey reference period is always the pay period including the 12th day of each month, inconsistencies arise because there are sometimes 4 and sometimes 5 weeks between the weeks including the 12th day in a given pair of months. In highly seasonal industries, these variations can affect the magnitude of seasonal hires or layoffs that have occurred at the time the survey is taken.[11]

### *Prior adjustments*

BLS incorporates prior adjustments as part of the seasonal adjustment process. Unlike the use of seasonal outliers, prior adjustments remove the effect (rounded to hundreds) of a known nonseasonal event from the not seasonally adjusted data before running X-13ARIMA-SEATS. This is done to ensure that nonseasonal events, such as decennial census hiring or strikes, are not included in the calculation of the seasonal factors. Once the seasonal factors are calculated, they are applied to the not seasonally adjusted data used as inputs. Then the prior adjustments that were removed before running X-13ARIMA-SEATS are incorporated to create the seasonally adjusted estimates. Seasonal outliers will continue to be made where there is insufficient information to determine a prior adjustment.

### *Outlier detection in seasonal adjustment*

Outlier detection is a regular part of the monthly seasonal adjustment process. When performing outlier detection, BLS uses a rule where, for all time series, data points over a certain critical value are designated as outliers.[12]

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[9] A list of BLS-published areas is available at https://download.bls.gov/pub/time.series/sm/sm.area.
[10] Technical information on concurrent seasonal adjustment for CES state and area data can be found at https://www.bls.gov/sae/seasonal-adjustment/implementation-of-concurrent-seasonal-adjustment-for-ces-state-and-area-estimates.htm.
[11] More information on the presence and treatment of calendar effects in CES data is explained by Cano, Stephanie; Getz, Patricia; Kropf, Jurgen; Scott, Stuart; and George Stamas (1996), "Adjusting for a Calendar Effect in Employment Time Series," available at https://www.bls.gov/osmr/research-papers/1996/pdf/st960190.pdf.
[12] For a list of outliers identified during the concurrent seasonal adjustment process, see https://www.bls.gov/sae/seasonal-adjustment/#outliers.

### *Area updates*

As a result of (a) the BLS update in the 2024 benchmark to official 2020 area delineations and (b) limitations in data availability associated with the two-step process for seasonal adjustment, it was necessary for BLS to adjust its methodology for seasonally adjusting select areas.

Historically, when incorporating new area delineations, BLS has not been able to publish seasonally adjusted data for new areas or areas with large compositional changes due to an inability to produce historical sample-based estimates.[13] For the 2024 benchmark, BLS researched the incorporation of historical simulations in conjunction with existing sample-based histories to allow for the publication of more seasonally adjusted series. The way sample-based estimates are used differs depending on the nature of the individual area changes.

For areas that absorbed other, previously estimated areas, or areas that broke out into multiple areas where the component areas had available sample estimates, new sample histories were created by either adding or subtracting the changing portion of the area. For areas that had either very small compositional changes and/or had very similar population seasonality, predecessor areas were used to calculate sample-based histories. For areas that were new or had very different seasonal patterns from their predecessor area, simulated sample histories were used. In some cases where simulations were deemed inadequate, BLS will suppress these areas on a seasonally adjusted basis. The areas that will not be published seasonally adjusted are listed below in Exhibit 1.

**Exhibit 1. Areas where seasonally adjusted data are not published in benchmark year 2024**

| Area FIPS Code | Area Title |
|---|---|
| 11180 | Ames, IA |
| 11200 | Amherst Town-Northampton, MA |
| 12700 | Barnstable Town, MA |
| 14580 | Bozeman, MT |
| 30500 | Lexington Park, MD |
| 31740 | Manhattan, KS |
| 41780 | Sandusky, OH |
| 45900 | Traverse City, MI |

# Benchmark revisions

## Revisions by industry

As noted earlier, the average absolute percentage revision across all states for total nonfarm payroll employment is 0.7 percent for September 2024. For September 2024, the range of the revision for total nonfarm payroll employment across all states is from -2.4 percent to 1.8 percent. (See table 1.)

Historical and current benchmark revisions for March and current revisions for December at both the state and industry level are included in the appendix.

Absolute level revisions provide further insight on the magnitude of benchmark revisions. Absolute level revisions are measured as the absolute difference between the sample-based estimates of payroll employment and the benchmark levels of payroll employment for September 2024. A relatively large benchmark revision in terms of percentage can correspond to a relatively small benchmark revision in terms of level due to the amount of employment in the industry.

[13] The X-13 ARIMA-SEATS software used by BLS requires a minimum of 3 years of data to process a time series.

**Table 1. Average absolute percentage differences between state employment estimates and benchmarks by industry, not seasonally adjusted, September 2019–September 2024 (all values in percent)**

| Industry[1] | Sep. 2019 | Sep. 2020 | Sep. 2021 | Sep. 2022 | Sep. 2023 | Sep. 2024 |
|---|---|---|---|---|---|---|
| | | | | | | |
| Total nonfarm | 0.5 | 1.1 | 0.9 | 0.7 | 0.7 | 0.7 |
| Mining and logging | 4.7 | 7.7 | 4.5 | 4.0 | 4.4 | 4.9 |
| Construction | 2.9 | 3.5 | 3.1 | 3.2 | 2.6 | 2.9 |
| Manufacturing | 1.4 | 2.8 | 1.8 | 1.7 | 1.7 | 1.9 |
| Trade, transportation, and utilities | 1.2 | 2.1 | 1.1 | 1.6 | 0.9 | 1.0 |
| Information | 2.8 | 4.1 | 5.0 | 3.8 | 4.9 | 3.6 |
| Financial activities | 1.6 | 2.5 | 1.9 | 2.6 | 2.2 | 1.8 |
| Professional and business services | 1.9 | 2.5 | 2.4 | 2.2 | 2.5 | 1.6 |
| Education and health services | 1.2 | 1.6 | 1.7 | 1.3 | 1.5 | 1.5 |
| Leisure and hospitality | 1.6 | 5.2 | 3.4 | 2.0 | 1.6 | 1.7 |
| Other services | 1.9 | 5.3 | 3.5 | 2.9 | 3.7 | 2.1 |
| Government | 1.0 | 1.5 | 1.0 | 0.8 | 0.9 | 1.1 |
| | | | | | | |
| Total nonfarm: | | | | | | |
| Range | -2.1 to 0.9 | -4.4 to 3.4 | -1.2 to 3.4 | -2.0 to 3.1 | -1.8 to 1.8 | -2.4 to 1.8 |
| Mean | -0.3 | -0.5 | 0.7 | 0.4 | -0.1 | -0.5 |
| Standard deviation | 0.6 | 1.4 | 1.0 | 0.8 | 0.8 | 0.8 |

[1] Industry summary statistics are only representative of data for those states where the industry is published at the statewide level. Benchmark data for Puerto Rico and the U.S. Virgin Islands are not included in these summary statistics.

The following example demonstrates the necessity of considering both percentage revision and level revision when evaluating the magnitude of a benchmark revision in an industry. The average absolute percentage benchmark revisions across all states for information and for professional and business services are 3.6 percent and 1.6 percent, respectively, for September 2024. However, for the same month, the average absolute level revision across all states for the information industry is 1,700, while the average absolute level revision across all states for the professional and business services industry is 5,600. (See table 2.) Relying on a single measure to characterize the magnitude of benchmark revisions in an industry can lead to an incomplete interpretation.

**Table 2. Average absolute level differences between state employment estimates and benchmarks by industry, not seasonally adjusted, September 2019–September 2024 (all values payroll employment)**

| Industry[1] | Sep. 2019 | Sep. 2020 | Sep. 2021 | Sep. 2022 | Sep. 2023 | Sep. 2024 |
|---|---|---|---|---|---|---|
| | | | | | | |
| Total nonfarm | 13,400 | 27,400 | 24,700 | 16,600 | 20,200 | 19,900 |
| Mining and logging | 700 | 1,100 | 700 | 600 | 600 | 600 |
| Construction | 3,100 | 3,500 | 3,600 | 3,400 | 4,000 | 3,800 |
| Manufacturing | 2,900 | 4,400 | 3,100 | 3,600 | 2,700 | 3,600 |
| Trade, transportation, and utilities | 4,700 | 7,700 | 5,400 | 6,400 | 5,700 | 5,300 |
| Information | 1,300 | 1,600 | 2,200 | 1,700 | 2,500 | 1,700 |
| Financial activities | 1,900 | 3,100 | 3,200 | 3,500 | 4,200 | 2,400 |
| Professional and business services | 5,900 | 7,700 | 6,400 | 9,400 | 9,800 | 5,600 |
| Education and health services | 4,700 | 5,600 | 6,600 | 4,400 | 6,300 | 6,200 |
| Leisure and hospitality | 4,500 | 13,300 | 9,900 | 5,700 | 4,400 | 5,500 |
| Other services | 1,800 | 5,100 | 3,100 | 2,700 | 3,500 | 2,200 |
| Government | 3,400 | 4,600 | 3,900 | 3,400 | 3,800 | 3,700 |
| | | | | | | |
| Total nonfarm: | | | | | | |
| Range | -85,200 to 37,300 | -148,000 to 63,400 | -31,600 to 221,300 | -18,800 to 108,400 | -273,000 to 34,200 | -170,900 to 51,400 |
| Mean | -8,100 | -15,400 | 20,300 | 11,800 | -11,600 | -15,100 |
| Standard deviation | 21,500 | 39,300 | 44,600 | 21,600 | 43,400 | 33,400 |

[1] Industry summary statistics are only representative of data for those states where the industry is published at the statewide level. Benchmark data for Puerto Rico and the U.S. Virgin Islands are not included in these summary statistics

## Revisions by state

For September 2024, nonfarm payroll employment was revised downward in 39 states and the District of Columbia and upward in 11 states. (See table 3 or map 1.)

**Table 3. Percent differences between nonfarm payroll employment benchmarks and estimates by state, not seasonally adjusted, September 2019–September 2024 (all values in percent)**

| State | Sep. 2019 | Sep. 2020 | Sep. 2021 | Sep. 2022 | Sep. 2023 | Sep. 2024 |
|---|---|---|---|---|---|---|
| Alabama | -1.0 | -1.4 | -0.2 | 1.3 | 0.7 | -1.0 |
| Alaska | 0.1 | -1.2 | 1.8 | 0.1 | 1.8 | -0.7 |
| Arizona | 0.3 | -1.1 | 0.2 | 0.4 | 1.1 | -1.8 |
| Arkansas | -0.5 | 0.8 | 1.3 | 1.8 | -0.6 | -0.4 |
| California | -0.5 | -0.9 | 1.3 | 0.6 | -1.5 | -1.0 |
| Colorado | 0.2 | -1.2 | 0.9 | -0.6 | 1.4[2] | -1.3[3] |
| Connecticut | -0.7 | -1.0 | 0.7 | 0.2 | (1) | -0.1 |
| Delaware | -0.7 | 3.4 | (1) | 2.6 | -0.4 | 0.3 |
| District of Columbia | -0.2 | -2.0 | 0.3 | -0.1 | -1.8 | -0.7 |
| Florida | -0.9 | -1.1 | 1.7 | 0.2 | -0.1 | -0.3 |
| Georgia | -0.2 | -2.0 | 0.4 | 0.1 | -0.4 | -0.4 |
| Hawaii | -1.0 | -4.4 | 2.8 | 1.2 | -0.6 | 0.2 |
| Idaho | 0.2 | 0.5 | 2.0 | 0.8 | -0.9 | -1.4 |
| Illinois | -1.2 | -0.9 | 0.4 | -0.3 | -0.7 | -0.1 |
| Indiana | -0.1 | -1.5 | 0.9 | 0.4 | -0.9 | -1.3 |
| Iowa | -0.5 | 0.1 | -0.1 | -0.7 | 0.4 | -0.6 |
| Kansas | -1.1 | -0.8 | -1.2 | 1.3 | -0.3 | -0.6 |
| Kentucky | -1.0 | 0.7 | 1.1 | 0.3 | -0.3 | -0.4 |
| Louisiana | -0.4 | -3.1 | 0.9 | -0.3 | -1.0 | 1.1 |
| Maine | 0.6 | 2.1 | 1.5 | -0.1 | 0.1 | 0.2 |
| Maryland | (1) | -1.6 | -0.4 | -0.7 | -0.6 | 1.8 |
| Massachusetts | (1) | -0.2 | 0.6 | -0.4 | -1.8 | -0.9 |
| Michigan | -0.4 | 1.5 | 0.9 | 0.3 | 0.6 | -0.1 |
| Minnesota | 0.5 | -0.4 | -0.9 | 0.3 | -0.1 | -0.4 |
| Mississippi | -1.0 | -1.0 | 0.4 | 1.7 | 0.9 | (1) |
| Missouri | -0.7 | -0.2 | 0.1 | 0.5 | -0.1 | -2.4 |
| Montana | 0.1 | 0.8 | 2.8 | 1.2 | 0.3 | -2.2 |
| Nebraska | -0.7 | -1.0 | -1.2 | -0.5 | 0.7 | -1.5 |
| Nevada | -1.0 | -3.0 | 3.4 | 3.1 | -0.8 | -0.3 |
| New Hampshire | -0.8 | 2.0 | 0.9 | 0.9 | -0.1 | -1.5 |
| New Jersey | 0.2 | -0.6 | 1.4 | 0.4 | -0.2 | -0.3 |
| New Mexico | -0.1 | -2.1 | 1.0 | 0.2 | 0.5 | 0.1 |
| New York | -0.1 | -0.5 | 1.7 | 0.6 | 0.1 | (1) |
| North Carolina | (1) | 1.2 | 1.7 | 0.4 | 0.2 | -0.4 |
| North Dakota | 0.6 | -0.2 | 0.4 | -0.1 | 0.1 | -0.4 |
| Ohio | -0.3 | 1.2 | 0.1 | 0.8 | -0.6 | -0.4 |
| Oklahoma | 0.7 | -0.8 | -0.2 | 1.2 | 1.6 | -0.4 |
| Oregon | -0.3 | (1) | 0.4 | -0.9 | -1.3 | 0.2 |
| Pennsylvania | 0.3 | (1) | 0.6 | 0.4 | -1.0 | -0.9 |
| Rhode Island | (1) | -1.0 | 0.7 | -0.1 | 1.8 | -0.2 |
| South Carolina | 0.7 | -1.5 | -0.1 | 0.8 | 0.4 | -1.0 |
| South Dakota | -1.5 | 0.2 | 1.4 | 0.1 | -0.4 | 0.2 |
| Tennessee | 0.3 | -0.2 | 0.8 | 0.4 | -0.6 | 1.2 |
| Texas | -0.2 | -1.1 | (1) | 0.4 | -0.5 | -0.8 |
| Utah | -0.3 | -1.2 | -0.1 | 0.9 | 0.4 | -0.8 |
| Vermont | -0.1 | 0.8 | 0.5 | 0.5 | 0.5 | -1.4 |
| Virginia | 0.9 | -0.4 | 0.4 | 0.3 | 0.5 | (1) |
| Washington | -0.6 | -0.7 | -0.9 | 0.6 | -0.9 | -0.2 |
| West Virginia | -2.1 | 0.3 | -0.2 | -2.0 | 1.0 | -0.3 |
| Wisconsin | -0.3 | 1.7 | 0.3 | 0.9 | -0.1 | (1) |
| Wyoming | 0.3 | -0.6 | 1.7 | -0.2 | -0.3 | -0.2 |

(1) Less than +/- 0.05 percent

[2] Revisions for Colorado are included in this table. Users are cautioned given the unusual movements in the Colorado QCEW data. See the changes to CES published series section in the 2023 benchmark article for more information.
[3] Revisions for Colorado are included in this table. Users are cautioned given the unusual movements in the Colorado QCEW data. See the changes to CES published series section above for more information.

The distribution of percent revisions for March 2024, September 2024, and December 2024 can be found in exhibit 2. Quintiles are representative of 20 percent of the range of state benchmark revisions. For example, 20 percent of the revisions are -1.3 or less for September 2024 while 100 percent of the revisions are equal to or less than 1.8 percent.

**Exhibit 2. Distribution of state percent revisions, March 2024, September 2024, and December 2024 (all values in percent)**

| Percentiles of Percent Revisions | March 2024 | September 2024 | December 2024 |
|---|---|---|---|
| 20th percentile..... | -0.5 | -1.3 | -1.1 |
| 40th percentile..... | -0.2 | -0.6 | -0.6 |
| 60th percentile..... | 0.1 | -0.3 | -0.2 |
| 80th percentile..... | 0.3 | (1) | 0.1 |
| 100th percentile..... | 3.2 | 1.8 | 2.1 |

(1) Less than +/- 0.05 percent

## Revisions by metropolitan statistical area

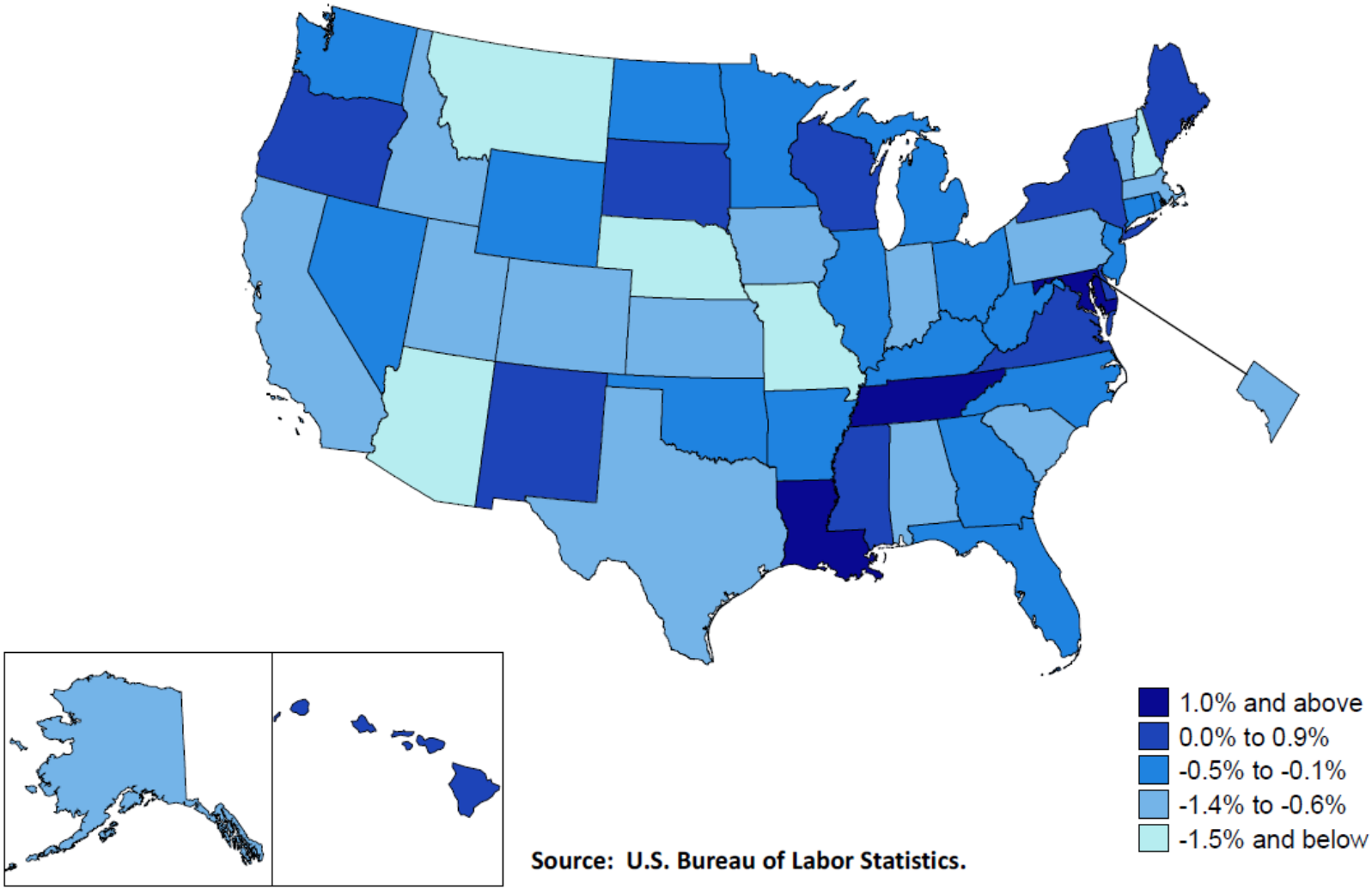
For all MSAs published by the CES program, the total nonfarm percentage revision for September 2024 ranged from -17.7 percent to 4.2 percent, with an average absolute percentage revision of 1.3 percent across all published MSAs. (See table 4.) For comparison, at the statewide level, the range was from -2.4 percent to 1.8 percent, with an average absolute revision of 0.7 percent for September 2024. (See table 1.) In general, both the range of percentage revisions and the average absolute percentage revision increase as the amount of employment in an MSA decreases. Metropolitan areas with 1 million or more employees during September 2024 had an average absolute revision of 0.9 percent, while metropolitan areas with fewer than 100,000 employees had an average absolute revision of 1.5 percent. (See table 4.)

**Table 4. Benchmark revisions for nonfarm employment in metropolitan areas for September 2024, not seasonally adjusted**

| Measure[1] | All MSAs | MSAs grouped by level of total nonfarm employment | | | |
|---|---|---|---|---|---|
| | | Less than 100,000 | 100,000 to 499,999 | 500,000 to 999,999 | 1 million or more |
| Number of MSAs…….. | 279 | 142 | 105 | 9 | 23 |
| Average absolute percentage revision…….. | 1.3 | 1.5 | 1.2 | 0.8 | 0.9 |
| Range……. | -17.7 to 4.2 | -17.7 to 4.2 | -4.4 to 2.8 | -1.5 to 0.8 | -1.9 to 2.3 |
| Mean..... | -0.6 | -0.8 | -0.5 | -0.5 | -0.1 |
| Standard deviation……..... | 1.9 | 2.3 | 1.4 | 0.8 | 1.1 |

[1] The areas included in this table are only unchanged MSAs. MSAs that experienced compositional changes, areas that are new in the 2020 delineations, areas that have been dropped from the 2020 delineations, areas that experienced FIPS code changes (and no compositional change), and NECTAs that have been dropped from the 2020 delineations have been excluded.

**Map 1. Percent differences between nonfarm payroll employment benchmarks and estimates by State, September 2024**




**Source: U.S. Bureau of Labor Statistics.**

# Appendix

**Table A1. Average absolute percentage differences between state employment estimates and benchmarks by industry, not seasonally adjusted, March 2019–March 2024 and December 2024 (all values in percent)**

| Industry[2] | Mar. 2019 | Mar. 2020 | Mar. 2021 | Mar. 2022 | Mar. 2023 | Mar. 2024 | Dec. 2024 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Total nonfarm | 0.4 | 0.5 | 0.8 | 0.7 | 0.5 | 0.5 | 0.6 |
| Mining and logging | 3.4 | 4.1 | 4.1 | 4.1 | 4.1 | 4.0 | 5.2 |
| Construction | 3.5 | 2.2 | 2.6 | 2.6 | 2.4 | 2.6 | 3.1 |
| Manufacturing | 1.3 | 1.3 | 1.3 | 1.5 | 1.2 | 1.6 | 2.1 |
| Trade, transportation, and utilities | 0.8 | 0.9 | 1.1 | 1.1 | 0.8 | 0.7 | 0.9 |
| Information | 2.3 | 3.0 | 3.8 | 3.5 | 2.8 | 3.3 | 3.8 |
| Financial activities | 1.5 | 1.4 | 1.6 | 1.9 | 2.0 | 1.5 | 1.8 |
| Professional and business services | 1.6 | 1.3 | 1.9 | 2.2 | 1.6 | 1.2 | 1.7 |
| Education and health services | 1.0 | 1.1 | 1.5 | 1.1 | 1.2 | 0.9 | 1.5 |
| Leisure and hospitality | 1.3 | 1.8 | 2.0 | 1.6 | 1.4 | 1.5 | 2.0 |
| Other services | 1.8 | 2.2 | 2.9 | 2.2 | 2.7 | 2.2 | 2.3 |
| Government | 0.6 | 0.7 | 0.7 | 0.7 | 0.6 | 0.8 | 1.3 |
| | | | | | | | |
| Total nonfarm: | | | | | | | |
| Range | -2.1 to 1.7 | -1.0 to 2.1 | -0.7 to 2.0 | -0.6 to 3.0 | -1.3 to 1.5 | -1.6 to 3.2 | -2.7 to 2.1 |
| Mean | 0.1 | 0.3 | 0.7 | 0.6 | 0.1 | (1) | -0.4 |
| Standard deviation | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.7 | 0.8 |

(1) Less than +/- 0.05 percent

[2] Industry summary statistics are only representative of data for those states where the industry is published at the statewide level. Benchmark data for Puerto Rico and the U.S. Virgin Islands are not included in these summary statistics.

**Table A2. Average absolute level differences between state employment estimates and benchmarks by industry, not seasonally adjusted, March 2019–March 2024 and December 2024 (all values payroll employment)**

| Industry[1] | Mar. 2019 | Mar. 2020 | Mar. 2021 | Mar. 2022 | Mar. 2023 | Mar. 2024 | Dec. 2024 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Total nonfarm | 8,200 | 12,900 | 23,900 | 17,700 | 13,600 | 11,700 | 17,600 |
| Mining and logging | 300 | 400 | 500 | 400 | 300 | 500 | 600 |
| Construction | 2,900 | 2,500 | 2,600 | 2,800 | 3,100 | 3,400 | 3,800 |
| Manufacturing | 2,100 | 2,200 | 2,200 | 2,700 | 2,000 | 3,200 | 3,700 |
| Trade, transportation, and utilities | 3,100 | 3,500 | 5,400 | 4,900 | 4,900 | 3,400 | 4,300 |
| Information | 1,200 | 1,200 | 1,500 | 1,600 | 1,300 | 1,600 | 2,000 |
| Financial activities | 2,000 | 2,100 | 2,600 | 2,800 | 3,100 | 2,000 | 2,500 |
| Professional and business services | 4,100 | 4,600 | 6,000 | 8,700 | 6,200 | 4,100 | 5,900 |
| Education and health services | 3,800 | 4,300 | 6,000 | 4,100 | 3,900 | 4,100 | 6,700 |
| Leisure and hospitality | 2,600 | 5,100 | 4,600 | 4,100 | 3,500 | 3,600 | 5,500 |
| Other services | 1,500 | 2,700 | 2,500 | 1,800 | 3,000 | 2,200 | 2,300 |
| Government | 2,100 | 2,800 | 2,900 | 2,500 | 2,200 | 3,100 | 4,600 |
| | | | | | | | |
| Total nonfarm: | | | | | | | |
| Range | -35,200 to 30,400 | -29,100 to 92,200 | -34,500 to 193,700 | -11,300 to 143,000 | -192,700 to 37,000 | -56,500 to 89,900 | -102,900 to 60,700 |
| Mean | 1,900 | 8,100 | 20,400 | 16,400 | -1,000 | 1,400 | -9,800 |
| Standard deviation | 11,400 | 18,700 | 38,900 | 25,400 | 30,500 | 20,300 | 28,600 |

[1] Industry summary statistics are only representative of data for those states where the industry is published at the statewide level. Benchmark data for Puerto Rico and the U.S. Virgin Islands are not included in these summary statistics

**Table A3. Percent differences between nonfarm payroll employment benchmarks and estimates by state, not seasonally adjusted, March 2019–March 2024 and December 2024 (all values in percent)**

| State | Mar. 2019 | Mar. 2020 | Mar. 2021 | Mar. 2022 | Mar. 2023 | Mar. 2024 | Dec. 2024 |
|---|---|---|---|---|---|---|---|
| Alabama | -0.2 | -0.2 | 0.2 | 1.2 | 0.6 | -0.4 | -1.0 |
| Alaska | -0.6 | 0.6 | 1.1 | 0.5 | -0.4 | -1.3 | -0.4 |
| Arizona | 0.4 | 0.2 | 0.8 | 1.6 | 1.2 | 0.8 | -1.3 |
| Arkansas | 0.5 | 1.4 | 0.9 | 1.3 | -0.1 | 0.1 | -0.3 |
| California | (1) | 0.5 | 1.2 | 0.8 | -1.1 | -0.3 | -0.5 |
| Colorado | 0.1 | 0.2 | 0.8 | 0.1 | 0.9 | -0.4[2] | -1.1[2] |
| Connecticut | -0.5 | 0.3 | 0.9 | 1.0 | 0.2 | (1) | -0.1 |
| Delaware | 0.5 | -0.1 | 0.8 | 3.0 | 0.2 | 0.4 | 0.3 |
| District of Columbia | 0.3 | -0.1 | -0.6 | -0.1 | -0.8 | 0.2 | -0.9 |
| Florida | -0.1 | 0.3 | 2.0 | 0.4 | 0.1 | 0.2 | -0.1 |
| Georgia | 0.1 | 0.5 | 0.5 | (1) | 0.2 | 0.1 | -0.1 |
| Hawaii | -0.1 | 0.1 | 2.0 | 1.5 | 0.2 | 0.2 | 0.3 |
| Idaho | 0.4 | 1.0 | 0.3 | 1.3 | -1.3 | -1.6 | -1.1 |
| Illinois | -0.6 | 0.6 | 0.6 | 0.1 | 0.1 | 0.2 | 0.1 |
| Indiana | 0.1 | -0.3 | 0.9 | -0.1 | -0.3 | -0.7 | -1.1 |
| Iowa | -0.1 | 0.8 | 0.6 | 0.5 | -0.1 | -0.3 | -0.8 |
| Kansas | (1) | -0.1 | -0.5 | 0.7 | -0.2 | -0.4 | -0.6 |
| Kentucky | -0.4 | 0.9 | 1.6 | 0.9 | 0.7 | 0.3 | -0.2 |
| Louisiana | 0.5 | 0.5 | 1.4 | (1) | 0.3 | 1.1 | 0.7 |
| Maine | 0.7 | 1.1 | 1.7 | 0.2 | 0.6 | 0.3 | 0.5 |
| Maryland | 0.3 | -0.8 | -0.5 | -0.4 | 0.2 | 3.2 | 2.1 |
| Massachusetts | 0.7 | 0.9 | 1.1 | 0.3 | -1.0 | -0.1 | -0.7 |
| Michigan | -0.1 | -0.2 | 0.5 | 0.3 | 0.5 | 0.1 | -0.1 |
| Minnesota | 0.5 | 0.8 | 0.8 | 0.4 | 0.2 | -0.2 | -0.1 |
| Mississippi | -0.4 | (1) | 0.5 | 0.3 | 0.5 | (1) | -0.1 |
| Missouri | -0.3 | 1.1 | 0.2 | -0.1 | -0.2 | -1.4 | -2.7 |
| Montana | 0.2 | (1) | 1.4 | 0.6 | 0.2 | -1.0 | -1.9 |
| Nebraska | -0.1 | -0.2 | -0.6 | -0.5 | -0.3 | -0.6 | -1.6 |
| Nevada | -0.5 | 2.1 | 1.0 | 2.0 | -1.3 | -0.5 | (1) |
| New Hampshire | 0.2 | 0.5 | 0.2 | 0.7 | -0.4 | -0.4 | -1.0 |
| New Jersey | (1) | 0.8 | 1.5 | 1.4 | 0.1 | -0.2 | (1) |
| New Mexico | 0.3 | -0.4 | 1.0 | -0.5 | 0.3 | 0.1 | 0.2 |
| New York | 0.3 | 0.1 | 0.8 | 0.8 | -0.1 | 0.3 | 0.5 |
| North Carolina | 0.5 | 0.8 | 1.3 | 0.7 | 0.4 | 0.4 | -0.1 |
| North Dakota | 1.2 | (1) | -0.3 | -0.1 | 0.4 | 1.1 | -0.5 |
| Ohio | -0.1 | 0.3 | 0.7 | 0.8 | 0.3 | 0.1 | -0.7 |
| Oklahoma | 0.7 | 0.5 | 0.8 | 0.5 | 1.3 | (1) | -0.5 |
| Oregon | -0.1 | 0.7 | 0.9 | (1) | -0.3 | 0.8 | 0.2 |
| Pennsylvania | 0.3 | 0.2 | 0.7 | 0.9 | -0.3 | (1) | -0.8 |
| Rhode Island | 1.7 | 1.0 | 1.8 | 0.6 | 1.4 | 0.1 | -0.1 |
| South Carolina | 0.2 | -0.7 | 0.5 | 1.2 | 0.4 | -0.6 | -0.6 |
| South Dakota | -1.6 | -0.1 | 0.2 | 1.2 | (1) | -0.2 | 0.4 |
| Tennessee | 0.4 | -0.3 | 0.6 | 0.4 | 0.1 | 1.5 | 1.4 |
| Texas | 0.2 | -0.2 | -0.3 | 0.2 | 0.1 | -0.1 | -0.7 |
| Utah | -0.3 | -1.0 | 0.5 | 0.6 | -0.2 | -0.2 | -1.2 |
| Vermont | 0.6 | 0.6 | -0.4 | 1.4 | 1.2 | 0.1 | -1.3 |
| Virginia | 0.4 | (1) | 0.6 | 0.3 | 0.5 | -0.1 | (1) |
| Washington | -0.7 | -0.1 | -0.7 | 0.8 | -1.0 | -0.4 | (1) |
| West Virginia | -2.1 | 0.3 | (1) | -0.4 | 1.5 | 0.2 | -0.4 |
| Wisconsin | 0.1 | 0.3 | 0.7 | 1.1 | 0.5 | 0.3 | 0.1 |
| Wyoming | 0.1 | 0.3 | 0.7 | -0.6 | 0.1 | -0.1 | -0.4 |

(1) Less than +/- 0.05 percent

[2] Revisions for Colorado are included in this table. Users are cautioned given the unusual movements in the Colorado QCEW data. See the changes to CES published series section above for more information.

**Table A4. Benchmark revisions for nonfarm employment in metropolitan areas for March 2024, not seasonally adjusted**

| Measure[2] | All MSAs | MSAs grouped by level of total nonfarm employment | | | |
|---|---|---|---|---|---|
| | | Less than 100,000 | 100,000 to 499,999 | 500,000 to 999,999 | 1 million or more |
| Number of MSAs……. | 279 | 142 | 105 | 9 | 23 |
| Average absolute percentage revision……. | 1.1 | 1.3 | 1.0 | 0.6 | 0.8 |
| Range…… | -17.9 to 4.8 | -17.9 to 4.8 | -3.6 to 4.7 | -0.8 to 1.4 | -1.0 to 3.8 |
| Mean…..... | -0.1 | -0.3 | -0.1 | (1) | 0.3 |
| Standard deviation……..... | 1.8 | 2.2 | 1.3 | 0.8 | 1.1 |

(1) Less than +/- 0.05 percent

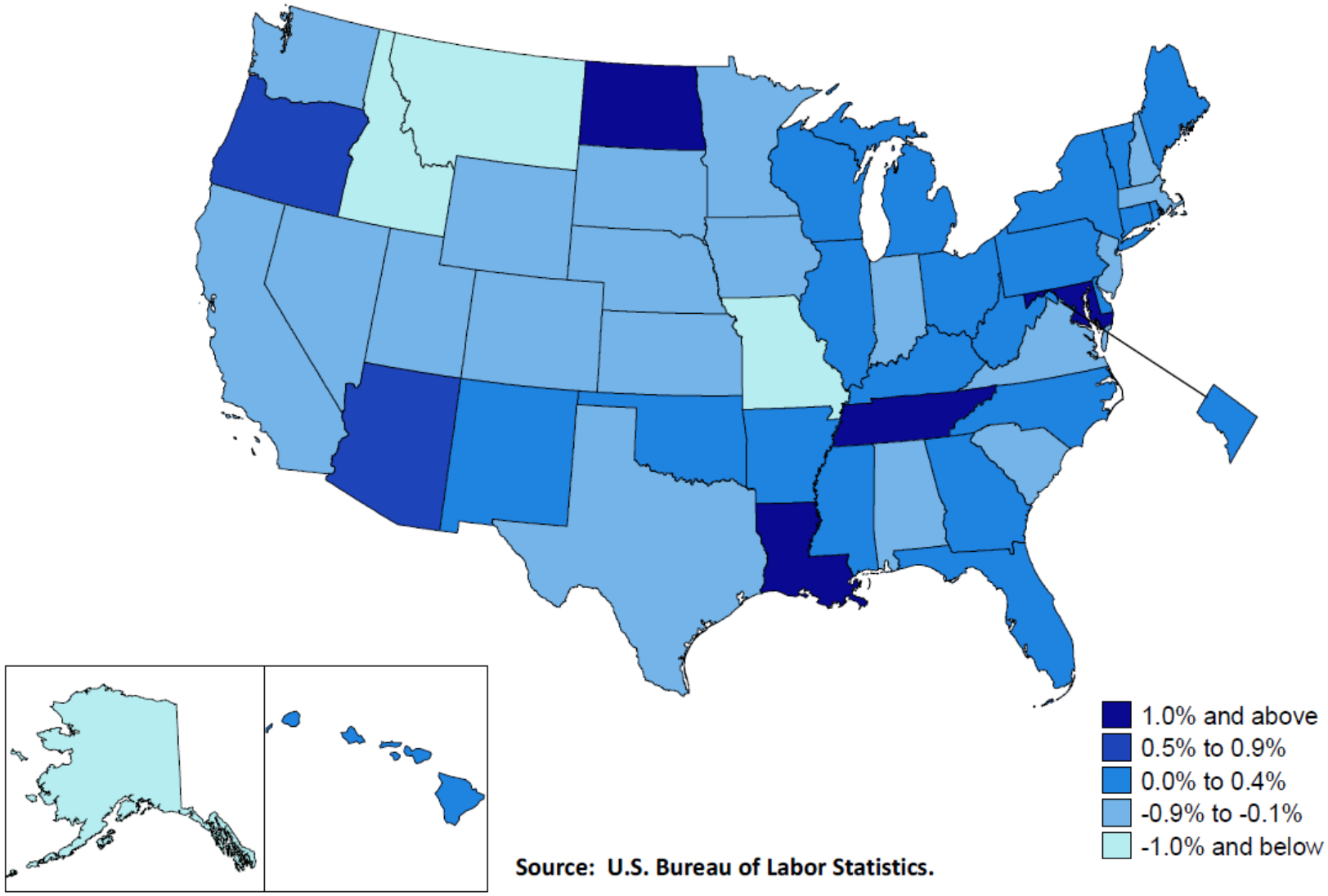
[2] The areas included in this table are only unchanged MSAs. MSAs that experienced compositional changes, areas that are new in the 2020 delineations, areas that have been dropped from the 2020 delineations, areas that experienced FIPS code changes (and no compositional change), and NECTAs that have been dropped from the 2020 delineations have been excluded.

**Table A5. Benchmark revisions for nonfarm employment in metropolitan areas for December 2024, not seasonally adjusted**

| Measure[1] | All MSAs | MSAs grouped by level of total nonfarm employment | | | |
|---|---|---|---|---|---|
| | | Less than 100,000 | 100,000 to 499,999 | 500,000 to 999,999 | 1 million or more |
| Number of MSAs…….. | 279 | 142 | 105 | 9 | 23 |
| Average absolute percentage revision…….. | 1.3 | 1.5 | 1.1 | 1.0 | 0.7 |
| Range……. | -18.4 to 4.5 | -18.4 to 4.5 | -4.2 to 2.5 | -2.4 to 1.0 | -1.7 to 2.5 |
| Mean..... | -0.5 | -0.7 | -0.4 | -0.4 | 0.1 |
| Standard deviation……..... | 1.9 | 2.3 | 1.4 | 1.2 | 1.0 |

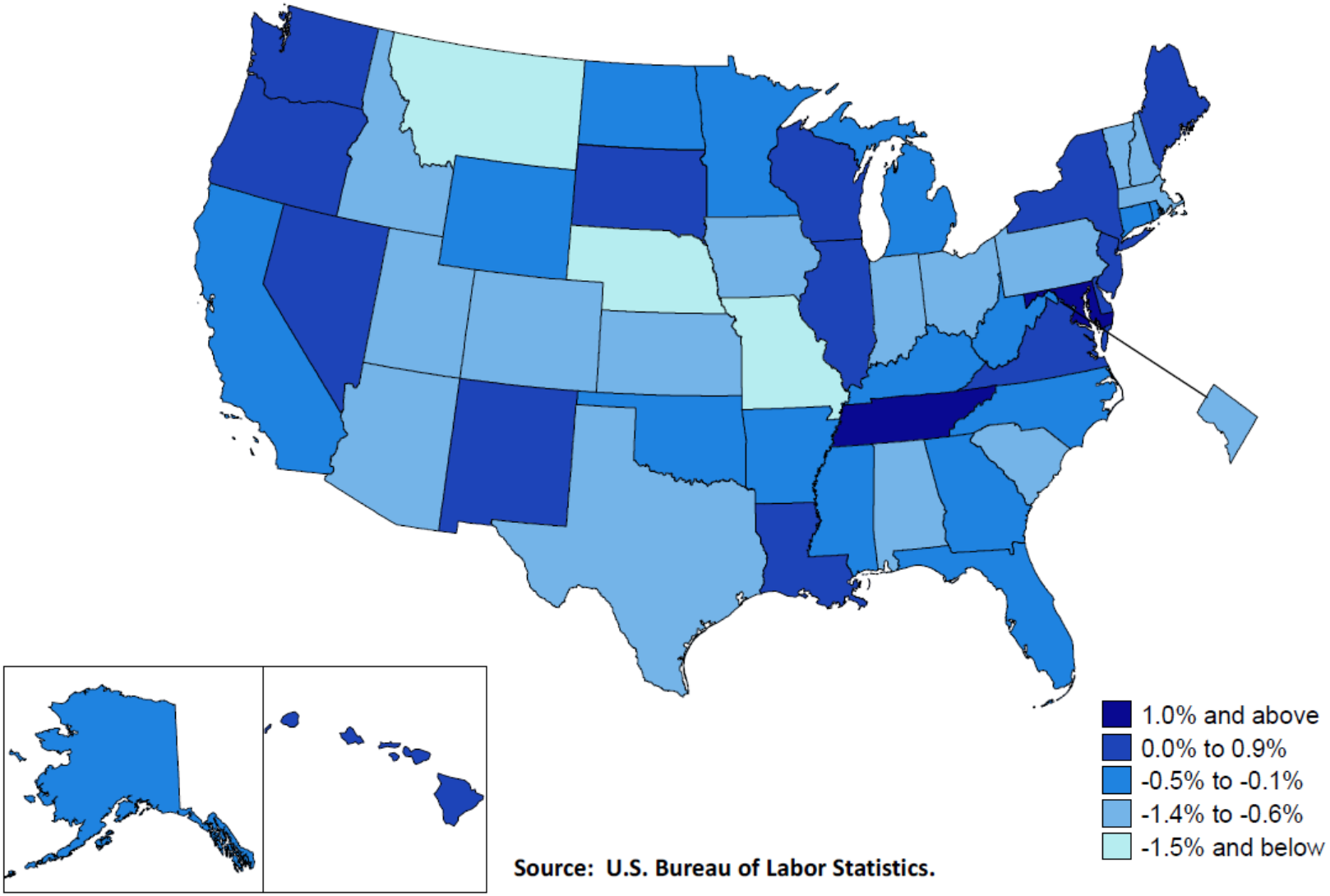
[1] The areas included in this table are only unchanged MSAs. MSAs that experienced compositional changes, areas that are new in the 2020 delineations, areas that have been dropped from the 2020 delineations, areas that experienced FIPS code changes (and no compositional change), and NECTAs that have been dropped from the 2020 delineations have been excluded.

**Map A1. Percent differences between nonfarm payroll employment benchmarks and estimates by State, March 2024**




**Source: U.S. Bureau of Labor Statistics.**

**Map A2. Percent differences between nonfarm payroll employment benchmarks and estimates by State, December 2024**




**Source: U.S. Bureau of Labor Statistics.**

**Table A6. Areas with compositional changes**

| Area FIPS code | Area Title | Area FIPS code | Area Title |
|---|---|---|---|
| 10380 | Aguadilla, PR | 29100 | La Crosse-Onalaska, WI-MN |
| 10500 | Albany, GA | 29180 | Lafayette, LA |
| 11180 | Ames, IA | 29200 | Lafayette-West Lafayette, IN |
| 11700 | Asheville, NC | 29340 | Lake Charles, LA |
| 12060 | Atlanta-Sandy Springs-Roswell, GA | 29404 | Lake County, IL Metropolitan Division |
| 12100 | Atlantic City-Hammonton, NJ | 30500 | Lexington Park, MD |
| 12220 | Auburn-Opelika, AL | 30980 | Longview, TX |
| 12940 | Baton Rouge, LA | 31140 | Louisville/Jefferson County, KY-IN |
| 13140 | Beaumont-Port Arthur, TX | 31180 | Lubbock, TX |
| 13460 | Bend, OR | 31340 | Lynchburg, VA |
| 13740 | Billings, MT | 31740 | Manhattan, KS |
| 13900 | Bismarck, ND | 32420 | Mayagüez, PR |
| 14010 | Bloomington, IL | 33460 | Minneapolis-St. Paul-Bloomington, MN-WI |
| 16740 | Charlotte-Concord-Gastonia, NC-SC | 33540 | Missoula, MT |
| 16820 | Charlottesville, VA | 33740 | Monroe, LA |
| 16980 | Chicago-Naperville-Elgin, IL-IN | 34820 | Myrtle Beach-Conway-North Myrtle Beach, SC |
| 16984 | Chicago-Naperville-Schaumburg, IL Metropolitan Division | 35084 | Newark, NJ Metropolitan Division |
| 17140 | Cincinnati, OH-KY-IN | 35380 | New Orleans-Metairie, LA |
| 17300 | Clarksville, TN-KY | 35614 | New York-Jersey City-White Plains, NY-NJ Metropolitan Division |
| 17410 | Cleveland, OH | 35620 | New York-Newark-Jersey City, NY-NJ |
| 17860 | Columbia, MO | 36260 | Ogden, UT |
| 17980 | Columbus, GA-AL | 36980 | Owensboro, KY |
| 19100 | Dallas-Fort Worth-Arlington, TX | 37460 | Panama City-Panama City Beach, FL |
| 19780 | Des Moines-West Des Moines, IA | 38300 | Pittsburgh, PA |
| 20994 | Elgin, IL Metropolitan Division | 38660 | Ponce, PR |
| 21060 | Elizabethtown, KY | 39900 | Reno, NV |
| 21780 | Evansville, IN | 40060 | Richmond, VA |
| 22220 | Fayetteville-Springdale-Rogers, AR | 40380 | Rochester, NY |
| 22900 | Fort Smith, AR-OK | 41540 | Salisbury, MD |
| 23104 | Fort Worth-Arlington-Grapevine, TX Metropolitan Division | 42644 | Seattle-Bellevue-Kent, WA Metropolitan Division |
| 23420 | Fresno, CA | 43340 | Shreveport-Bossier City, LA |
| 23540 | Gainesville, FL | 43580 | Sioux City, IA-NE-SD |
| 24260 | Grand Island, NE | 43620 | Sioux Falls, SD-MN |
| 24340 | Grand Rapids-Wyoming-Kentwood, MI | 44060 | Spokane-Spokane Valley, WA |
| 25060 | Gulfport-Biloxi, MS | 46220 | Tuscaloosa, AL |
| 25180 | Hagerstown-Martinsburg, MD-WV | 47260 | Virginia Beach-Chesapeake-Norfolk, VA-NC |
| 26420 | Houston-Pasadena-The Woodlands, TX | 47380 | Waco, TX |

| | | | |
|---|---|---|---|
| 26580 | Huntington-Ashland, WV-KY-OH | 47460 | Walla Walla, WA |
| 26900 | Indianapolis-Carmel-Greenwood, IN | 47580 | Warner Robins, GA |
| 27140 | Jackson, MS | 47900 | Washington-Arlington-Alexandria, DC-VA-MD-WV |
| 27180 | Jackson, TN | 48620 | Wichita, KS |
| 27900 | Joplin, MO-KS | 48900 | Wilmington, NC |
| 28020 | Kalamazoo-Portage, MI | 49660 | Youngstown-Warren, OH |

**Table A7. Areas dropped from CES publications**

| Area FIPS code | Area Title | Area FIPS code | Area Title |
|---|---|---|---|
| 14100 | Bloomsburg-Berwick, PA | 74650 | Lewiston-Auburn, ME NECTA |
| 16060 | Carbondale-Marion, IL | 74804 | Lowell-Billerica-Chelmsford, MA-NH NECTA Division |
| 19060 | Cumberland, MD-WV | 74854 | Lynn-Saugus-Marblehead, MA NECTA Division |
| 19180 | Danville, IL | 74950 | Manchester, NH NECTA |
| 20524 | Dutchess County-Putnam County, NY Metropolitan Division | 75404 | Nashua, NH-MA NECTA Division |
| 20700 | East Stroudsburg, PA | 75550 | New Bedford, MA NECTA |
| 31460 | Madera, CA | 75700 | New Haven, CT NECTA |
| 35100 | New Bern, NC | 76450 | Norwich-New London-Westerly, CT-RI NECTA |
| 36140 | Ocean City, NJ | 76524 | Peabody-Salem-Beverly, MA NECTA Division |
| 38220 | Pine Bluff, AR | 76600 | Pittsfield, MA NECTA |
| 41900 | San Germán, PR | 76750 | Portland-South Portland, ME NECTA |
| 47894 | Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division | 76900 | Portsmouth, NH-ME NECTA |
| 70750 | Bangor, ME NECTA | 77200 | Providence-Warwick, RI-MA NECTA |
| 70900 | Barnstable Town, MA NECTA | 78100 | Springfield, MA-CT NECTA |
| 71650 | Boston-Cambridge-Nashua, MA-NH NECTA | 78254 | Taunton-Middleborough-Norton, MA NECTA Division |
| 71654 | Boston-Cambridge-Newton, MA NECTA Division | 78700 | Waterbury, CT NECTA |
| 71950 | Bridgeport-Stamford-Norwalk, CT NECTA | 79600 | Worcester, MA-CT NECTA |
| 72104 | Brockton-Bridgewater-Easton, MA NECTA Division | 92581 | Baltimore City, MD |
| 72400 | Burlington-South Burlington, VT NECTA | 92811 | Kansas City, MO |
| 72850 | Danbury, CT NECTA | 93562 | Orange-Rockland-Westchester, NY |
| 73050 | Dover-Durham, NH-ME NECTA | 93563 | Bergen-Hudson-Passaic, NJ |
| 73104 | Framingham, MA NECTA Division | 93565 | Middlesex-Monmouth-Ocean, NJ |

| | | | |
|---|---|---|---|
| 73450 | Hartford-West Hartford-East Hartford, CT NECTA | 94781 | Calvert-Charles-Prince George's, MD |
| 73604 | Haverhill-Newburyport-Amesbury Town, MA-NH NECTA Division | 94783 | Northern Virginia, VA |
| 74204 | Lawrence-Methuen Town-Salem, MA-NH NECTA Division | 97961 | Philadelphia City, PA |
| 74500 | Leominster-Gardner, MA NECTA | 97962 | Delaware County, PA |

**Table A8. Areas added to CES publications**

| Area FIPS code | Area Title | Area FIPS code | Area Title |
|---|---|---|---|
| 11200 | Amherst Town-Northampton, MA | 49340 | Worcester, MA |
| 12620 | Bangor, ME | 12054 | Atlanta-Sandy Springs-Roswell, GA Metropolitan Division |
| 12700 | Barnstable Town, MA | 14580 | Bozeman, MT |
| 14454 | Boston, MA Metropolitan Division | 20580 | Eagle Pass, TX |
| 14460 | Boston-Cambridge-Newton, MA-NH | 21794 | Everett, WA Metropolitan Division |
| 14860 | Bridgeport-Stamford-Danbury, CT | 25740 | Helena, MT |
| 15540 | Burlington-South Burlington, VT | 28450 | Kenosha, WI |
| 15764 | Cambridge-Newton-Framingham, MA Metropolitan Division | 28880 | Kiryas Joel-Poughkeepsie-Newburgh, NY |
| 25540 | Hartford-West Hartford-East Hartford, CT | 29484 | Lakewood-New Brunswick, NJ Metropolitan Division |
| 30340 | Lewiston-Auburn, ME | 31924 | Marietta, GA Metropolitan Division |
| 31700 | Manchester-Nashua, NH | 33500 | Minot, ND |
| 35300 | New Haven, CT | 37140 | Paducah, KY-IL |
| 35980 | Norwich-New London-Willimantic, CT | 38240 | Pinehurst-Southern Pines, NC |
| 38340 | Pittsfield, MA | 41304 | St. Petersburg-Clearwater-Largo, FL Metropolitan Division |
| 38860 | Portland-South Portland, ME | 41780 | Sandusky, OH |
| 39300 | Providence-Warwick, RI-MA | 42644 | Seattle-Bellevue-Kent, WA Metropolitan Division |
| 40484 | Rockingham County-Strafford County, NH Metropolitan Division | 43640 | Slidell-Mandeville-Covington, LA |
| 44140 | Springfield, MA | 45294 | Tampa, FL Metropolitan Division |
| 47930 | Waterbury-Shelton, CT | 45900 | Traverse City, MI |

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# Additional information

Historical state and area employment, hours, and earnings data are available on the BLS website at https://www.bls.gov/sae. Inquiries for additional information on the methods or estimates derived from the CES survey should be sent by email to ***sminfo@bls.gov***. Assistance and response to inquiries by telephone is available Monday through Friday, during the hours of 8:30 am to 4:30 pm Eastern Time, by dialing (202) 691-6559.

Previously released benchmark articles for CES state and area data are available at https://www.bls.gov/sae/publications/benchmark-article/home.htm.