

# Quarterly Workforce Indicators: Data Notices

## Local Employment Dynamics

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## Background

### Data Notices

The Longitudinal Employer-Household Dynamics (LEHD) program is continually working to improve and refine the Quarterly Workforce Indicators (QWI). This Data Notices document provides information to users on important updates to QWI data and specific data issues that affect certain states. General data issues that affect the QWI are posted at the top of the document; further below, state-specific notices highlight major data features or issues that affect individual states. These Data Notices are designed to inform users of large-scale updates and issues, and this document will be revised as processes are improved or new data quality issues are uncovered.

### The Quarterly Workforce Indicators

The Quarterly Workforce Indicators (QWI) is an innovative data product that provides detailed local labor market statistics by industry, worker demographics and employer characteristics. By using unique job-level data that link workers to their employers, labor market data in the QWI is available by worker age, sex, educational attainment, race, and ethnicity. This allows for many interesting analyses – for instance, users can identify and study industries with aging workforces. Further, links between workers and firms allow the QWI to identify worker flows – including hires, separations, and turnover. Data on worker flows enables researchers to examine which industries have hired workers and the characteristics of new hires. QWI is a powerful tool for understanding trends and dynamics in local labor markets.

The source data for the QWI is the Longitudinal Employer-Household Dynamics (LEHD) linked employer-employee microdata. The LEHD data is massive longitudinal database covering over 95% of U.S. private sector jobs. Much of this data is collected via a unique federal-state data sharing collaboration, the Local Employment Dynamics (LED) partnership. LED is a cooperative venture between the LEHD program at the U.S. Census Bureau and state agencies of all 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. By integrating data used to administer public programs with existing records and surveys, a new national jobs database is generated at very low cost and with no additional respondent burden. More information on the QWI can be found here:

[https://lehd.ces.census.gov/doc/QWI\\_101.pdf](https://lehd.ces.census.gov/doc/QWI_101.pdf).

### Important Note on Quarterly Recalculations

The complete QWI time series is updated with every quarterly data release. Measures across the time series may change between releases for a number of reasons, including:

- raw data inputs are updated;



- algorithms to develop estimates are revised;
- random draws that are used to generate missing data may change.

Regular users should be aware that fluctuations may be observed in historic data, and we generally advise that users do not combine data from different QWI releases.

## Time Series Availability

The start of the QWI time series for each state varies based on the availability of historical data. Users should also be aware that within each quarterly release, the time series for some states may not be available through the latest quarter due to delays in provision of input files or data issues pending remediation. The historical data for such states may still be reprocessed and included in a quarterly release. Users should reference the metadata information provided and the data schema for additional details on tabulations provided in any state data release.

## General Notices

### Apr – Jun 2025 (R2025Q2)

#### *Updated Firm Age and Size Series*

With this release, the firm age and firm size tabulations in the QWI have been updated to end in 2024Q2.

#### *States not current in R2025Q2*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- California (*latest quarter of data: 2024Q2*)
- Michigan (*latest quarter of data: 2021Q4*)
- Missouri (*latest quarter of data: 2024Q2*)
- North Carolina (*latest quarter of data: 2023Q2*)

### Jan – Mar 2025 (R2025Q1)

#### *Correction to North Carolina State Government Employment Tabulation Counties*

Corrections have been applied to the locations for state government employment in North Carolina starting with this release. Since 2009, state government jobs have been over-tabulated in Wake County, home to the capital, at the expense of all other counties. North Carolina's QWI now has a more accurate allocation of state government jobs throughout the state. This will affect historical data and future quarters.

#### *Additional Lag in Firm Age and Size Series*

Due to a delay in the provision of critical input files, the firm age and firm size tabulations in the QWI will continue to end at the fourth quarter of 2023 for this release.

### ***Application of Wage Record Impute in 2020Q2***

The inconsistent application of wage record imputes for 2020Q2 has been corrected in affected states (Michigan and North Carolina) starting with this release. Separations in 2020Q1 and employment counts in 2020Q2 have returned to the expected levels for those states.

### ***States not current in R2025Q1***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Kentucky (*latest quarter of data: 2024Q1*)
- Michigan (*latest quarter of data: 2021Q4*)
- North Carolina (*latest quarter of data: 2023Q2*)

## **Oct – Dec 2024 (R2024Q4)**

### ***Resumption of Mississippi QWI Production***

Mississippi has returned to regular production with this release.

### ***Inconsistent Application of Wage Record Impute in 2020Q2***

Wage records are imputed in the LEHD infrastructure in order to correct for under-reporting patterns identified in the state unemployment insurance earnings data. The unusual pattern of separations that occurred in the first quarter of 2020 due to the onset of the COVID-19 pandemic resulted in a large number of jobs being imputed in the second quarter. Because an analysis at the time suggested that the separations were more likely to be real economic events, it was determined that the impute should not be used in 2020Q2, and LED data products have accordingly displayed employment patterns consistent with the event.

However, a recent analysis indicated that a processing error resulted in several states (Michigan and North Carolina) using the imputed records in recent production quarters, including R2024Q4. This will have resulted in fewer separations in 2020Q1 and higher employment counts in 2020Q2 for those states. This will be corrected in R2025Q1 processing, which will return the affected states to the expected levels.

### ***States not current in R2024Q4***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Michigan (*latest quarter of data: 2021Q4*)
- North Carolina (*latest quarter of data: 2023Q2*)

## **Jul – Sep 2024 (R2024Q3)**

### ***Florida QWI Data Not Available Through Latest Quarter***

Florida data are not available through the latest quarter due to a data reporting error involving QWI earnings measures. These data will be reprocessed and released next quarter.

### ***States not current in R2024Q3***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Florida (*latest quarter of data: 2023Q3*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Michigan (*latest quarter of data:2021Q4*)
- North Carolina (*latest quarter of data:2023Q2*)

### **Apr – Jun 2024 (R2024Q2)**

#### ***Updated Firm Age and Size Series***

With this release, the firm age and firm size tabulations in the QWI have been updated to end in 2023Q2.

#### ***Resumption of Arkansas QWI Production***

Arkansas has returned to regular production with this release.

### ***States not current in R2024Q2***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Michigan (*latest quarter of data:2021Q4*)
- North Carolina (*latest quarter of data:2023Q2*)

### **Jan – Mar 2024 (R2024Q1)**

#### ***Additional Lag in Firm Age and Size Series***

Due to a delay in the provision of critical input files, the firm age and firm size tabulations in the QWI will continue to end at the fourth quarter of 2022 for this release.

#### ***QWI Base Geography Changes***

Base geographies for the QWI have been updated to the TIGER/Line 2023 vintage. See the LEHD shapefile schema page: [https://lehd.ces.census.gov/data/schema/latest/lehd\\_shapefiles.html](https://lehd.ces.census.gov/data/schema/latest/lehd_shapefiles.html) and the TIGER/Line Geography page: <https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html> for more information.

#### ***Change to County Equivalents for the Connecticut QWI Geography***

As part of the 2023 geography updates, the county-level QWI for Connecticut will be published in Council of Governments (COGs) as the new county-equivalent geographic units. For more information please refer to [Final Change to County Equivalents in Connecticut](#).

### ***States not current in R2024Q1***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Michigan (*latest quarter of data:2021Q4*)

### **Oct – Dec 2023 (R2023Q4)**

#### ***States not current in R2023Q4***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Michigan (*latest quarter of data:2021Q4*)
- North Carolina (*latest quarter of data:2022Q3*)

### **Jul – Sep 2023 (R2023Q3)**

#### ***States not current in R2023Q3***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Michigan (*latest quarter of data:2021Q4*)
- North Carolina (*latest quarter of data:2022Q3*)

### **Apr – Jun 2023 (R2023Q2)**

#### ***States not current in R2023Q2***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Michigan (*latest quarter of data:2021Q4*)

## Jan – Mar 2023 (R2023Q1)

### *Upgrade to NAICS 2022 Industry Codes*

The Quarterly Workforce Indicators (QWI) will transition from the 2017 North American Industry Classification System (NAICS) to the 2022 NAICS beginning with the R2023Q1 vintage. As with all QWI releases, the 2022 NAICS coding system will be applied to the complete history of the data. For detailed information on the coding system changes, see <https://www.census.gov/naics/>.

### *States not current in R2023Q1*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Michigan (*latest quarter of data: 2021Q4*)

## Oct – Dec 2022 (R2022Q4)

### *Incorporation of Public Sector Jobs in Hawaii*

Beginning with the R2022Q4 release, a large portion of public sector jobs in Hawaii that have been previously excluded from the QWI are now being included in the state's data. The jobs have been integrated into the entire time series. Users should notice increases in employment levels in both the statewide data and sub-state aggregations, particularly in industries such as Education (NAICS 61), Public Administration (NAICS 92), Professional, Scientific and Technical Services (NAICS 54), and Health Care and Social Assistance (NAICS 62).

### *Removal of Sectoral Suppressions in Colorado*

A previously noted data quality issue in Colorado had been resolved with this release. The QWI series suppressions for NAICS 22 – Utilities and NAICS 61 – Education (and all associated subsectors and industry groups) in 2020Q2 – 2021Q3 have been removed.

### *States not current in R2022Q4*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Kansas (*latest quarter of data: 2020Q4*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Nevada (*latest quarter of data: 2021Q3*)

## Jul – Sep 2022 (R2022Q3)

### *Sectoral Suppressions in Colorado*

Due to a data quality issue, suppressions have been applied within NAICS 22 – Utilities (and all associated subsectors and industry groups) in the state for 2020Q2, 2020Q3, 2020Q4, 2021Q1 and

2021Q2. Suppressions have also been applied within NAICS 61 – Education (and all associated subsectors and industry groups) in the state for 2020Q3, 2020Q4, 2021Q1, 2021Q2 and 2021Q3 until further notice.

### ***Sectoral Suppressions in Maryland***

Due to a data quality issue, suppressions have been applied within NAICS 61 – Education (and all associated subsectors and industry groups) in the state for 2021Q1, 2021Q2 and 2021Q3 until further notice.

### ***States not current in R2022Q3***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Kansas (*latest quarter of data: 2020Q4*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Nevada (*latest quarter of data: 2021Q3*)

## **Apr – Jun 2022 (R2022Q2)**

### ***Sectoral Suppressions in Colorado***

Due to a data quality issue, suppressions have been applied within NAICS 22 – Utilities (and all associated subsectors and industry groups) in the state for 2020Q2, 2020Q3, 2020Q4, 2021Q1 and 2021Q2. Suppressions have also been applied within NAICS 61 – Education (and all associated subsectors and industry groups) in the state for 2020Q3, 2020Q4, 2021Q1, 2021Q2 and 2021Q3.

### ***Sectoral Suppressions in Maryland***

Due to a data quality issue, suppressions have been applied within NAICS 61 – Education (and all associated subsectors and industry groups) in the state for 2021Q1, 2021Q2 and 2021Q3.

### ***States not current in R2022Q2***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Kansas (*latest quarter of data: 2020Q4*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Jan – Mar 2022 (R2022Q1)**

### ***Adjustment to the QWI Weighting Methodology***

In a very small number of cells with low beginning-of-quarter employment counts, weights were being assigned incorrectly. This resulted in differences when comparing totals of counts for select measures

(especially EmpTotal, HirA, and Sep) to similar totals at higher levels of aggregation. The weights have been corrected, and the sums are more consistent in these isolated cases.

### ***Fluctuations in Education Series in Maryland***

Due to ongoing issues in data reporting patterns, users may notice fluctuations in the published statistics for NAICS 61 - Education in Maryland.

### ***Sectoral Suppressions in Colorado***

Due to a data quality issue, suppressions have been applied within NAICS 22 – Utilities (and all associated subsectors and industry groups) in the state for 2020Q2, 2020Q3, 2020Q4, 2021Q1 and 2021Q2. Suppressions have also been applied within NAICS 61 – Education (and all associated subsectors and industry groups) in the state for 2020Q3, 2020Q4, 2021Q1 and 2021Q2.

### ***Sectoral Suppressions in Maryland***

Due to a data quality issue, suppressions have been applied within NAICS 61 – Education (and all associated subsectors and industry groups) in the state for 2021Q1 and 2021Q2.

### ***Removal of Sectoral Suppressions in Arizona***

A previously noted data quality issue in Arizona had been resolved with this release. The QWI series suppressions for NAICS 22 – Utilities (and all associated subsectors and industry groups) in 2020Q2, 2020Q3, 2020Q4 and 2021Q1 have been removed.

### ***States not current in R2022Q1***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Kansas (*latest quarter of data: 2020Q4*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Oct – Dec 2021 (R2021Q4)**

### ***Suppression of Total Payroll Measures***

Total payroll measures have been suppressed in QWI as an additional privacy protection for the data. As an alternative, total quarterly payroll is available in the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW). The QWI Total Payroll measures are very similar to the QCEW payroll measures. This redundancy is an additional reason the Total Payroll measures are now suppressed in QWI.

### ***Fluctuations in Education Series in Maryland***

Due to ongoing issues in data reporting patterns, users may notice fluctuations in the published statistics for NAICS 61 - Education in Maryland.

### ***Sectoral Suppressions in Arizona***

Due to a data quality issue, suppressions have been applied within NAICS 22 – Utilities (and all associated subsectors and industry groups) in the state for 2020Q2, 2020Q3, 2020Q4, and 2021Q1.



### ***Removal of Sectoral Suppressions in Connecticut***

A previously noted data quality issue in Connecticut had been resolved with this release. The QWI series suppressions for NAICS 61 – Educational Services (and all associated subsectors and industry groups) in 2019Q4, 2020Q1, and 2020Q2 have been removed.

### ***States not current in R2021Q4***


The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Colorado (*latest quarter of data: 2020Q3*)
- Kansas (*latest quarter of data: 2020Q4*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Apr – Jun 2021 (R2021Q2)**

### ***New QWI Weighting Methodology Implemented***

A new QWI weighting methodology has been implemented, beginning with the R2021Q2 release. This methodology corrects a recently identified bias in job flow statistics and improves the longitudinal consistency of QWI measures. The revised calculation has been applied to the whole QWI time series.

See [QWI-Weight-Adjustment-R2021Q2](#)  (929 KB) for more details.

### ***QWI Base Geography Changes***

Base geographies for the QWI have been updated to the TIGER/Line 2020 vintage except for Metro/Micropolitan Areas (i.e. CBSAs), which still use the TIGER/LINE 2019 vintage. See the TIGER/Line Geography page for more information: <https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html>.

### ***Sectoral Suppressions in Connecticut***

Due to a data quality issue, suppressions have been applied within NAICS 61 – Educational Services (and all associated subsectors and industry groups) in the state for 2019Q4, 2020Q1, and 2020Q2.

### ***Removal of Sectoral Suppressions in Delaware***

The QWI series suppressions for NAICS 61 – Educational Services (and all associated subsectors and industry groups) in 2020Q2 have been removed.

### ***Removal of Sectoral Suppressions in Alabama***

The QWI series suppressions for NAICS 21 – Mining, Quarrying, and Oil and Gas Extraction (and all associated subsectors and industry groups) in 2020Q1 and 2020Q2 have been removed.

### ***States not current in R2021Q2***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)



- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Jan – Mar 2021 (R2021Q1)

### *QWI Weights Adjusted for 2020Q2*

As a result of the large decrease in employment beginning in the second quarter of 2020, an alternative employment target and weighting approach for the QWI Beginning-of-Quarter data has been developed. Employment counts for the Quarterly Workforce Indicators (QWI) and the Quarterly Census for Employment and Wages (QCEW), which provide a benchmark employment target used to develop weights for the QWI, are comparable in most quarters. However, the 2020Q2 employment drop manifested very differently in the two data products, leading to sharply divergent point-in-time employment counts. The adjusted weights leverage the historical relationship between the QWI and QCEW to smooth employment discontinuities caused by the COVID-19 pandemic. See the [QWI Weighting Adjustment for 2020Q2](#) memo for more details.

### *Employment Shifts in NAICS 6241 and 8141 in Oregon*

As the result of a Bureau of Labor Statistics (BLS) administrative change in coding establishments that provide non-medical, home-based services for the elderly and people with disabilities, users should expect to see a shift of employment from 8141 - Private Households, to NAICS 6241 - Services for the Elderly and Persons with Disabilities in the QWI data for Oregon starting in 2020Q1.

### *Updated Firm Age and Size Series*

With this release, the firm age and firm size tabulations in the QWI have been updated to end in 2020Q1.

### *Sectoral Suppressions in Alabama*

Due to a data quality issue, suppressions have been applied within NAICS 21 – Mining, Quarrying, and Oil and Gas Extraction (and all associated subsectors and industry groups) in the state for 2020Q1 and 2020Q2.

### *Sectoral Suppressions in Connecticut*

Due to a data quality issue, suppressions have been applied within NAICS 61 – Educational Services (and all associated subsectors and industry groups) in the state for 2019Q4 and 2020Q1.

### *Sectoral Suppressions in Delaware*

Due to a data quality issue, suppressions have been applied within NAICS 61 – Educational Services (and all associated subsectors and industry groups) in the state for 2020Q2.

### *States not current in R2021Q1*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Kentucky (*latest quarter of data: 2020Q1*)
- Mississippi (*latest quarter of data: 2018Q2*)

- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Oct – Dec 2020 (R2020Q4)

### *Additional Lag in Firm Age and Size Series*

Due to a delay in the provision of critical input files, the firm age and firm size tabulations in the QWI will continue to end at the fourth quarter of 2018 for this release.

### *States not current in R2020Q4*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Jul – Sep 2020 (R2020Q3)

### *Upward Bias in Accessions and Job Creation*

A recent analysis has identified a previously undetected source of bias in QWI accession/job creation/net job flow measures. The source of this bias is the weighting methodology used to adjust QWI counts to Quarterly Census of Employment and Wages (QCEW) totals. Specifically, slight differences in the seasonality of the two series results in a tendency for the weights to inflate within-quarter growth rates. A revised estimation approach is being developed and will be made available in a future QWI release. In the interim, we advise users to calculate growth rates from start of quarter employment counts, especially if calculating growth rates over longer periods.

### *Updated Firm Age and Size Series*

With this release, the firm age and firm size tabulations in the QWI have been updated to end in the fourth quarter of 2018.

### *States not current in R2020Q3*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Apr – Jun 2020 (R2020Q2)

### *Additional Lag in Firm Age and Size Series*

Due to a delay in the production of [Business Dynamics Statistics](#) for 2017, the firm age and firm size tabulations in QWI will end at the fourth quarter of 2017.

### ***States not current in R2020Q2***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- North Carolina (*latest quarter of data: 2019Q2*)
- Nevada (*latest quarter of data: 2019Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Jan – Mar 2020 (R2020Q1)**

### ***Additional Lag in Firm Age and Size Series***

Due to a delay in the production of [Business Dynamics Statistics](#) for 2017, the firm age and firm size tabulations in QWI will end at the fourth quarter of 2017.

### ***QWI Base Geography Changes***

Base geographies for the QWI have been updated to the TIGER/Line 2019 vintage. All legal boundaries and names are as of January 1, 2019. See the TIGER/Line Geography page for more information:

<https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html>

### ***States not current in R2020Q1***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- California (*latest quarter of data: 2018Q4*)
- Indiana (*latest quarter of data: 2018Q3*)
- Missouri (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Oct – Dec 2019 (R2019Q4)**

### ***Additional Lag in Firm Age and Size Series***

Due to a delay in the production of [Business Dynamics Statistics](#) for 2017, the firm age and firm size tabulations in QWI will end at the fourth quarter of 2017.

### ***States not current in R2019Q4***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- California (*latest quarter of data: 2018Q4*)
- Indiana (*latest quarter of data: 2018Q3*)
- Minnesota (*latest quarter of data: 2018Q2*)
- Missouri (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- South Dakota (*latest quarter of data: 2017Q1*)
- Virginia (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Jul – Sep 2019 (R2019Q3)

### *Additional Lag in Firm Age and Size Series*

Due to a delay in the production of [Business Dynamics Statistics](#) for 2017, the firm age and firm size tabulations in QWI will end at the fourth quarter of 2017.

### *States not current in R2019Q3*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Indiana (*latest quarter of data: 2018Q3*)
- Kentucky (*latest quarter of data: 2018Q3*)
- Minnesota (*latest quarter of data: 2018Q2*)
- Missouri (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- South Dakota (*latest quarter of data: 2017Q1*)
- Virginia (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Apr – Jun 2019 (R2019Q2)

### *Additional Lag in Firm Age and Size Series*

Due to a delay in the production of [Business Dynamics Statistics](#) for 2017, the firm age and firm size tabulations in QWI will end at the fourth quarter of 2017.

### *States not current in R2019Q2*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Arkansas (*latest quarter of data: 2018Q2*)
- Maine (*latest quarter of data: 2018Q1*)

- Minnesota (*latest quarter of data: 2018Q2*)
- Missouri (*latest quarter of data: 2018Q2*)
- Mississippi (*latest quarter of data: 2018Q2*)
- New Jersey (*latest quarter of data: 2018Q2*)
- Pennsylvania (*latest quarter of data: 2018Q2*)
- South Dakota (*latest quarter of data: 2017Q1*)
- Virginia (*latest quarter of data: 2018Q2*)
- Washington (*latest quarter of data: 2018Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Jan – Mar 2019 (R2019Q1)

### *Additional Lag in Firm Age and Size Series*

Due to a delay in the production of [Business Dynamics Statistics](#) for 2017, the firm age and firm size tabulations in QWI will end at the fourth quarter of 2017. This will be true for the next release (R2019Q2) as well.

### *Changes in Public Sector Reporting in New York*

Due to a recent change in the reporting pattern of public sector jobs in New York, users should expect higher employment counts being assigned to NAICS 92 – Public Administration starting in 2018Q1.

### *Imputation of Wage Records to Correct for Missing Data*

The primary data input for employment measures in LED products are Unemployment Insurance (UI) earnings records, administrative records reported by firms to state agencies. Under-reporting of these records can have a negative impact on the quality of estimates in the Quarterly Workforce Indicators (QWI), Job-to-Job Flows (J2J), and other LED data products. With the R2019Q1 release, we are implementing an automated mechanism to identify single-quarter firm under-reporting issues and then to impute missing worker earnings micro-data records. Imputations will be applied to the historical data series as well as current data. On average, imputed records comprise less than 0.5% of all earnings records, and the impact on statewide employment measures will typically be small. However, users may observe changes in industry or substate geography tabulations compared to previous estimates (releases), resulting in more consistent time series. In addition, users may observe significant differences in measures of employment dynamics, such as hires and separations. At the state level, the changes in employment dynamics measures will tend to be decreases, but differences can be more variable in smaller cells. The QWI measures most affected include:

- Hires Recalls (HirR)
- Firm Job Gains (FrmJbGn)
- Firm Job Losses (FrmJbLs)
- Firm Job Gains - Stable (FrmJbGnS)
- Firm Job Losses - Stable (FrmJbLsS)

We will continue to monitor the results of these changes and make refinements as needed. A technical paper with details on the imputation methodology and impact of these changes will be made available in the coming months. Please send questions or comments to [ces.qwi.feedback@census.gov](mailto:ces.qwi.feedback@census.gov)

### ***QWI Base Geography Changes***

Base geographies for the QWI have been updated to the TIGER/Line 2018 vintage. State, County, CBSA and Workforce Investment Area tabulation areas exist unchanged from previous QWI data releases. Minor boundary adjustments occur annually across all geographies and are not reflected in this notice.

All legal boundaries and names are as of January 1, 2018. See the TIGER/Line Geography page for more information: <https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html>

### ***Removal of Sectoral Suppressions in Arizona***

A previously noted data quality issue in Arizona had been resolved with this release. The QWI series suppressions for NAICS 22 – Utilities (and all associated subsectors and industry groups) in 2017Q4 and 2018Q1 have been removed.

### ***Removal of Sectoral Suppressions in South Carolina***

A previously noted data quality issue in South Carolina had been resolved. The QWI series suppressions for NAICS 22 – Utilities (and all associated subsectors and industry groups) in 2017Q1-2017Q3 have been removed.

### ***Removal of Sectoral Suppressions in Vermont***

A previously noted data quality issue in Arizona had been resolved with this release. The QWI series suppressions for NAICS 61 – Educational Services (and all associated subsectors and industry groups) in 2017Q3, 2017Q4, and 2018Q1 have been removed.

### ***States not current in R2019Q1***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Maine (*latest quarter of data: 2018Q1*)
- South Dakota (*latest quarter of data: 2017Q1*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Oct – Dec 2018 (R2018Q4)**

### ***QWI Base Geography Changes in Iowa***

With the R2018Q4 release for Iowa, all blocks in Buena Vista County have moved from Region 5 – Fort Dodge WIB tabulation area “19190005” to Region 3 & 4 – Spencer WIB tabulation area “19190003”.

### ***Sectoral Suppressions in Vermont***

Due to a data quality issue, suppressions have been applied within NAICS 61 – Educational Services (and all associated subsectors and industry groups) in the state for 2017Q3, 2017Q4, and 2018Q1.

### ***Sectoral Suppressions in Arizona***

Due to a data quality issue, the QWI series for NAICS 22 – Utilities (and all associated subsectors and industry groups) have been suppressed for the entire state in 2017Q4 and 2018Q1.

### ***States not current in R2018Q4***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Hawaii (*latest quarter of data: 2017Q4*)
- Kentucky (*latest quarter of data: 2017Q4*)
- Michigan (*latest quarter of data: 2017Q4*)
- New York (*latest quarter of data: 2017Q4*)
- Rhode Island (*latest quarter of data: 2017Q4*)
- South Dakota (*latest quarter of data: 2017Q1*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

### **Jul – Sep 2018 (R2018Q3)**

#### ***QWI Direct Download Restructuring***

Starting with this release, the LEHD program has updated the structure of the QWI data files available through direct download. Please refer to the [official announcement](#) for details.

#### ***Sectoral Suppressions in Vermont***

Due to a data quality issue, suppressions have been applied within NAICS 61 – Educational Services (and all associated subsectors and industry groups) in the state for 2017Q3 and 2017Q4.

### ***States not current in R2018Q3***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- South Dakota (*latest quarter of data: 2017Q1*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

### **Apr – Jun 2018 (R2018Q2)**

#### ***Public Sector Reporting in Illinois***

Due to a recent change in Illinois' administrative data reporting practices, users may notice shifts in certain public sector employment aggregations across the state in this release.

#### ***Removal of Sectoral Suppressions in Arizona***

A previously noted data quality issue in Arizona had been resolved with this release. The QWI series suppressions for NAICS 22 – Utilities (and all associated subsectors and industry groups) in 2017Q1 and 2017Q2 have been removed.

### ***States not current in R2018Q2***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.



- Alaska (*latest quarter of data: 2016Q2*)
- South Dakota (*latest quarter of data: 2017Q1*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Jan – Mar 2018 (R2018Q1)

### *Firm Age and Size Time Series Adjustment for Rhode Island*

Due to a data quality issue, the firm age and size (FAS) series for Rhode Island had been lagged by an additional quarter, ending in 2016Q4. The series is expected to return to normal in the next release.

### *QWI Base Geography Changes*

Base geographies for the QWI have been updated to the TIGER/Line 2017 vintage. State, County, CBSA and Workforce Investment Area tabulation areas exist unchanged from previous QWI data releases. Minor boundary adjustments occur annually across all geographies and are not reflected in this notice. All legal boundaries and names are as of January 1, 2017. See the TIGER/Line Geography page for more information: <https://www.census.gov/geo/maps-data/data/tiger-line.html>

### *Sectoral Suppressions in Arizona*

Due to a data quality issue, the QWI series for NAICS 22 – Utilities (and all associated subsectors and industry groups) have been suppressed for the entire state in 2017Q1 and 2017Q2.

### *Sectoral Suppressions in South Carolina*

Due to a data quality issue, the QWI series for NAICS 22 – Utilities (and all associated subsectors and industry groups) have been suppressed for the entire state in 2017Q2.

### *Upgrade to NAICS 2017 Industry Codes*

The Quarterly Workforce Indicators (QWI) will transition from the 2012 North American Industry Classification System (NAICS) to the 2017 NAICS beginning with this release. As with all QWI releases, the 2017 NAICS coding system will be applied to the complete history of the data. For detailed information on the coding system changes, see <https://www.census.gov/eos/www/naics/concordances/concordances.html>

### *States not current in R2018Q1*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Missouri (*latest quarter of data: 2017Q1*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)
- South Dakota (*latest quarter of data: 2017Q1*)

## Oct – Dec 2017 (R2017Q4)

### *Irregularities in Hawaii in 2016Q4-2017Q1*

We observed reporting issues in the preliminary submission of data from Hawaii for 2017Q1, particularly in the public sector. This may result in unexpected shifts in aggregates across demographic categories and other totals, as well as excess separations in 2016Q4.



### ***Notice of Pending Transition to 2017 NAICS***

The QWI are currently reported in 2012 NAICS for all quarters. Beginning with the 2018Q1 release, we will transition to 2017 NAICS. For detailed information on the new coding system, see <https://www.census.gov/eos/www/naics/>.

### ***Notice of Planned Removal of “label” Files from QWI Release***

The QWI release currently contains a set of comma-delimited files providing labels for data values for all characteristics reported (e.g., see [https://lehd.ces.census.gov/pub/al/R2017Q4/DVD-sa\\_f/](https://lehd.ces.census.gov/pub/al/R2017Q4/DVD-sa_f/)). These files will be removed from the QWI release beginning with the third quarter of 2018.

The complete specification of the QWI release is available in the *LEHD Public Use Data Schema*, including data labels for all variables. The schema number for a release can be found within the “version” file provided with the data. For example, the schema for the release above can be found at [https://lehd.ces.census.gov/data/schema/V4.1.3/lehd\\_public\\_use\\_schema.html](https://lehd.ces.census.gov/data/schema/V4.1.3/lehd_public_use_schema.html).

Please contact us at [ces.qwi.feedback@census.gov](mailto:ces.qwi.feedback@census.gov) for any questions or comments on these changes.

### ***QWI Base Geography Changes in Texas***

With the R2017Q4 release for Texas, all blocks in McMullen County have moved from Coastal Bend WDA WIB tabulation area “48000022” to Alamo WDA WIB tabulation area “48000020”.

### ***Sectoral Suppressions in Connecticut***

Due to an ongoing data quality issue, additional QWI data suppressions have been applied within NAICS 61 – Educational Services for 2015Q3 through 2017Q1.

### ***States not current in R2017Q4***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Rhode Island (*latest quarter of data: 2016Q4*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)
- Virginia (*latest quarter of data: 2016Q4*)

## **Jul – Sep 2017 (R2017Q3)**

### ***Global Updates to Demographic Characteristics***

Demographic characteristics have been updated to use more recently observed information, when available. Updated data sources include Numident (Social Security records), American Community Survey, and 2010 Decennial Census records. Users may observe shifts in demographic tabulations when comparing to earlier releases, particularly in race and ethnicity data.

### ***QWI Base Geography Changes***

With the R2017Q3 release, Workforce Investment Areas were updated for the states of Alabama and Louisiana. Please refer to the latest LEHD Public Use Data Schema ([Alabama](#), [Louisiana](#), and [WIA/WIB Shape Files](#)) for all relevant changes.

### ***Reprocessing of Missouri Data***

This historical data series for Missouri has been reprocessed to improve linkages between the unemployment insurance wage record and employer files. This may result in significant shifts in employment reported for particular industries or sub-state regions when comparing to earlier QWI releases.

### ***Resumption of Idaho QWI Production***

Idaho has returned to regular production with this release.

### ***Resumption of Wyoming QWI Production***

Wyoming has returned to regular production with this release. However, because of the relatively long suspension of production, users may observe fluctuations in the Firm Age and Size series, particularly in the last two years of data. The series should stabilize in future releases.

### ***Sectoral Suppressions in Connecticut***

Due to an ongoing data quality issue, the QWI series for NAICS Sector 61 – Educational Services (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q3 through 2016Q4.

### ***States not current in R2017Q3***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Apr – Jun 2017 (R2017Q2)**

### ***Data Shifts in Missouri***

Due to recent changes in Missouri's administrative data system, users may notice level shifts in QWI measures tabulated by regions and industries, beginning in 2016Q3. These shifts will be reviewed, and historical data may be reprocessed in a future release to improve longitudinal consistency.

### ***Removal of Sectoral Suppression in Georgia***

A previously noted data quality issue in Georgia had been resolved with this release. The sectoral suppressions in place for NAICS Sector 48-49 – Transportation and Warehousing (and all associated subsectors and industry groups) in 2015Q4, 2016Q1, and 2016Q2 have been removed.

### ***Removal of Sectoral Suppressions in Washington***

The suppressions for NAICS Sub-sector 462 – Social Assistance (and all associated industry groups) in place for Washington in 2016Q1 and 2016Q2 have been removed. Users may notice fluctuations in the published statistics for this sub-sector due to data reporting patterns.

### ***Sectoral Suppressions in Connecticut***

Due to an ongoing data quality issue, the QWI series for NAICS Sector 61 – Educational Services (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q3 through 2016Q3.

### ***States not current in R2017Q2***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation. Please refer to the latest available data schema and metadata for each state for additional details on tabulations provided.

- Alaska (*latest quarter of data: 2016Q2*)
- Idaho (*latest quarter of data: 2015Q4*)
- Wyoming (*latest quarter of data: 2014Q4*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## **Jan – Mar 2017 (R2017Q1)**

### ***Exclusion of Wage Records from Activity not Directly Related to Employment***

As part of our continuing data quality improvement efforts, beginning with this release, we have excluded from QWI tabulations wage record account numbers that are solely associated with atypical payments to persons (usually former and current employees of a firm) resulting from legal settlements. The exclusion of these records will primarily reduce excess accessions and separations in QWI statistics. These account for less than 1% of statewide hires and separations in most quarters.

### ***Changes in UI Wage Processing in Pennsylvania***

Due to recent changes in the administrative processing of the Pennsylvania UI wage records, users may notice differences in the various QWI earnings measures beginning in 2015Q4 when comparing with previous releases.

### ***Sectoral Suppressions in Connecticut***

Due to an ongoing data quality issue, the QWI series for NAICS Sector 61 – Educational Services (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q3, 2015Q4, 2016Q1, and 2016Q2.

### ***Sectoral Suppressions in Georgia***

Due to an ongoing data quality issue, the QWI series for NAICS Sector 48-49 – Transportation and Warehousing (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q4, 2016Q1, and 2016Q2.

### ***Sectoral Suppressions in Maine***

Due to an ongoing data quality issue, the QWI series for NAICS Sub-sector 524 – Insurance Carriers and Related Activities (and all associated industry groups) have been suppressed for the entire state in 2015Q3, 2015Q4, 2016Q1, and 2016Q2.

### ***Sectoral Suppressions in Washington***

Due to a data quality issue, the QWI series for NAICS Sub-sector 624 – Social Assistance (and all associated industry groups) have been suppressed for the entire state in 2016Q1 and 2016Q2.

### ***States not current in R2017Q1***

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation:

- Idaho (*latest quarter of data: 2015Q4, release R2016Q4*)

- Wyoming (*latest quarter of data: 2014Q4, release R2016Q1*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Oct – Dec 2016 (R2016Q4)

### *QWI Base Geography Changes*

With the release of R2016Q4 the underlying QWI geography will add 16 new Micropolitan areas: Alexander City, AL; Atmore, AL; Bonham, TX; Brownsville, TN; Carroll, IA; Central City, KY; Eufaula, AL-GA; Fairmont, MN; Fort Payne, AL; Grand Rapids, MN; Hope, AR; Jennings, LA; Pella, IA; Ruidoso, NM; St. Marys, PA; West Point, MS.

State, County, and Workforce Investment Areas exist unchanged from previous QWI data releases. Minor boundary adjustments occur annually across all geographies and are not reflected in this notice. All legal boundaries and names are as of January 1, 2016. See the TIGER/Line Geography page for more information: <https://www.census.gov/geo/maps-data/data/tiger-line.html>

### *Sectoral Suppressions in Connecticut*

Due to an ongoing data quality issue, the QWI series for NAICS Sector 61 – Educational Services (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q3, 2015Q4, and 2016Q1.

### *Sectoral Suppressions in Georgia*

Due to a data quality issue, the QWI series for NAICS Sector 48-49 – Transportation and Warehousing (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q4 and 2016Q1.

### *Sectoral Suppressions in Maine*

Due to data quality issues, the QWI series for 2015Q3, 2015Q4, and 2016Q1 have been suppressed for the following aggregations:

- NAICS Sector 62 – Health Care and Social Assistance in county 009 (Hancock)
- NAICS Sub-sector 524 – Insurance Carriers and Related Activities, statewide

### *States not current in R2016Q4*

The time series for the following states are not available through the latest quarter due to delays in provision of input files or data issues pending remediation:

- Idaho (*latest quarter of data: 2015Q4, release R2016Q4*)
- Michigan (*latest quarter of data: 2015Q4, release R2016Q4*)
- Wyoming (*latest quarter of data: 2014Q4, release R2016Q1*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

## Jul – Sep 2016 (R2016Q3)

### *Sectoral Suppressions in Connecticut*

Due to a data quality issue identified in the fourth quarter of 2015, the QWI series for NAICS Sector 61 – Educational Services (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q3 and 2015Q4.

### ***Removal of Sectoral Suppressions in Nevada***

An existing data quality issue in Nevada had been resolved with this release. The sectoral suppressions previously in place for NAICS Sector 22 – Utilities (and all associated subsectors and industry groups) in 2015Q2 and 2015Q3 have been removed.

### ***States not included in R2016Q3***

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Michigan
- Wyoming
- Puerto Rico, Virgin Islands (*experimental production*)

## **Apr – Jun 2016 (R2016Q2)**

### ***Removal of Sectoral Suppressions in Oregon***

An existing data quality issue in Oregon had been resolved with this release. The sectoral suppressions previously in place for NAICS Subsector 452 – General Merchandise Stores (and all associated 4-digit industry groups) for 2014Q2, 2014Q3, and 2014Q4 have been removed.

### ***Sectoral Suppressions in Nevada***

Due to a data quality issue identified in the third quarter of 2015, the QWI series for NAICS Sector 22 – Utilities (and all associated subsectors and industry groups) have been suppressed for the entire state in 2015Q2 and 2015Q3.

### ***States not included in R2016Q2***

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Wyoming
- Puerto Rico, Virgin Islands (*experimental production*)

## **Jan – Mar 2016 (R2016Q1)**

### ***Removal of Empty Records from CSV Files, Race Category A06***

Users of the CSV files available for download from the LEHD website may have noticed records for race category “A06”, with missing values or zeroes for all measures. We note that LEHD tabulations follow the OMB standards for publishing race/ethnicity:

#### **a. Race:**

- American Indian or Alaskan Native
- Asian or Pacific Islander
- Black
- White

#### **b. Ethnicity:**

- Hispanic Origin

- Not of Hispanic Origin

From the core race categories above we break out Asian and Pacific Islander and add support for the multi-race category, which is part of the OMB standard as well:

[https://www.whitehouse.gov/omb/fedreg\\_race-ethnicity](https://www.whitehouse.gov/omb/fedreg_race-ethnicity)

The code “A06” is used for internal processing only, and is never used for tabulation by race. These empty records have been removed from the CSV (comma separated values) files starting with this release. Users of the LED Extraction tool or QWI explorer will see no change.

More information on the data schema is available at the following link:

[https://lehd.ces.census.gov/data/schema/V4.0.4/lehd\\_public\\_use\\_schema.html](https://lehd.ces.census.gov/data/schema/V4.0.4/lehd_public_use_schema.html)

### ***Sectoral Suppressions in Oregon***

Due to a data quality issue identified in the third quarter of 2014, the QWI series for NAICS Subsector 452 – General Merchandise Stores (and all associated 4-digit industry groups) have been suppressed for the entire state in 2014Q2, 2014Q3, and 2014Q4.

### ***States not included in R2016Q1***

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Wyoming
- Puerto Rico, Virgin Islands (*experimental production*)

## **Oct – Dec 2015 (R2015Q4)**

### ***Improvements in Assignment of Establishment Characteristics, Job Linkages (Minnesota)***

We have made improvements to the algorithm by which geography and industry are assigned to workers' jobs, significantly improving the consistency between QWI employment counts and those from Quarterly Census of Employment and Wages at lower geographies. In addition, improved job linkages have resulted in decreases in measures of job flows, such as accessions, separations, job creation, and job destruction.

### ***Resumption of Kansas QWI Production, Firm Age and Size Withheld***

Kansas has returned to regular production with this release. However, because of the previous suspension of production, the Firm Age and Size data could not be produced for this release. A full release will be available next quarter.

### ***Sectoral Suppressions in Oregon***

Due to a data quality issue identified in the third quarter of 2014, the QWI series for NAICS Subsector 452 – General Merchandise Stores (and all associated 4-digit industry groups) have been suppressed for the entire state in 2014Q2, 2014Q3, and 2014Q4.

### ***States not included in R2015Q4***

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Wyoming

- Puerto Rico, Virgin Islands (*experimental production*)

## Jul – Sep 2015 (R2015Q3)

### *Release of Massachusetts Quarterly Workforce Indicators*

The first official release of the Massachusetts Quarterly Workforce Indicators has been included in this quarter's QWI publications.

### *Upgrade to NAICS 2012 Industry Codes*

The Quarterly Workforce Indicators (QWI) will transition from the 2007 North American Industry Classification System (NAICS) to the 2012 NAICS beginning with the third quarter of 2015 data release (R2015Q3). As with all QWI releases, the 2012 NAICS coding system will be applied to the complete history of the data. In conjunction with the transition to the 2012 NAICS, the industry coding algorithm has been restructured to improve data quality and manageability. For further information, please see the attached document [NAICS 2012 Data Notice](#).

### *Sectoral Suppressions in Oregon*

Due to a data quality issue identified in the third quarter of 2014, the QWI series for NAICS Subsector 452 – General Merchandise Stores (and all associated 4-digit industry groups) have been suppressed for the entire state in 2014Q2, 2014Q3, and 2014Q4.

### *States not included in R2015Q3*

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Kansas
- New Mexico
- Puerto Rico, Virgin Islands (*experimental production*)

## Apr – Jun 2015 (R2015Q2)

### *UI Reporting Changes for Professional Employer Organizations in Florida*

Changes in the reporting of unemployment insurance (UI) wage records for jobs associated with Professional Employer Organizations (PEO) were implemented in Florida in 2013, in accordance with state legislation. These changes have resulted in difficulty matching records between the UI wage file and the Quarterly Census of Employment and Wages (QCEW), causing approximately 1.5% of jobs in Florida to be omitted when calculating the Quarterly Workforce Indicators. The bias at higher levels is generally small because the jobs are well dispersed across industry and geography, and weighting factors largely correct the employment counts. However, users may encounter shifts in small cells because of missing jobs. In addition, unusual spikes may be observed in separation measures, particularly in the fourth quarter of 2012. Future research will be conducted to correct this issue.

### *Public Sector Suppressions in South Dakota*

Due to an issue identified in the UI reporting patterns of the state's public sector employment, the "All Ownership (Public + Private)" aggregations for South Dakota will be suppressed for this release. The QWI series will be published only for the private sector.



### *Sectoral and Geographic Suppression in Virginia*

Due to a data quality issue identified in the second and third quarter of 2014, the QWI series will be suppressed for the following aggregations:

- Manufacturing sector (NAICS 31-33) for the entire state
- Select sub-state geographic regions in the Virginia Beach metro area

### *States not included in R2015Q2*

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Kansas
- Louisiana
- Massachusetts , Puerto Rico, Virgin Islands (*experimental production*)

## **Jan – Mar 2015 (R2015Q1)**

### *Shift in Firm Age Distributions in Vermont*

Due to an issue identified in the source file used in the firm age calculations, users may notice, in the 2014Q1 data, an approximate 3% shift of employment from the top (11+ years) into the 4-5 years firm age category, resulting in a 70% increase in the latter group's employment counts. A corresponding fix has since been implemented, and the series is expected to return to normal levels for the 2015Q2 release.

### *Shift in Firm Size Distribution in Connecticut*

Due to an issue identified in the source file used in the firm size calculations, users may notice an approximate 2% shift in employment distribution from the "500+ employees" category to the "50-249 employees" category in the 2014Q1 data. The series is expected to return to stable levels in the next release.

### *States not included in R2015Q1*

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Florida
- Kansas
- Massachusetts , Puerto Rico, Virgin Islands (*experimental production*)
- Washington

## **Oct – Dec 2014 (R2014Q4)**

### *Date of Birth Imputes*

As the result of a recent infrastructure enhancement, we are now utilizing imputed dates of birth for certain groups of workers with ages that were previously deemed unreliable, or too old/young to be in a credible working status. These employees had historically been excluded from the QWI. With the incorporation of this updated mechanism, users may notice an increase of jobs in certain aggregations, particularly in the agricultural sector, where increases of 5% to 10% may be observed. In addition, a proportional shift in the worker age distribution from the younger to the older categories may be observed across the country.



### ***Multi-unit Firm Employment Allocations***

Minor improvements have been made to the allocation of jobs for firms with multiple reported worksite establishments. This resulted in better assignments of jobs across the industries and/or geographies associated with the affected employers. Users may observe changes in relevant queries and aggregations.

### ***States not included in R2014Q4***

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- Connecticut
- Florida
- Kansas
- Massachusetts , Puerto Rico, Virgin Islands (*experimental production*)
- Washington

## **Jul – Sep 2014 (R2014Q3)**

### ***County Subdivision Geography Changes in Vermont***

Recent changes in the nationally-unique geographic identifiers for the county subdivision/town geographies in Vermont have led to a tabulation error in Workforce Investment Area "06 Franklin/Grand Isle WIB". Approximately 1,100 jobs are determined to have been excluded from the WIA 06 tabulations (an estimate of the tabulation error can be calculated from difference between the State total and the sum of the WIA areas). We have since updated the geography definitions, and this issue will be resolved with the next quarterly release.

### ***Workplace Geography Enhancement***

Users may observe occasional shifts of employment allocations at the various geography levels due to ongoing geographic quality enhancements.

### ***States not included in R2014Q3***

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- California
- Florida
- Kentucky
- Massachusetts, Puerto Rico, Virgin Islands (*experimental production*)
- Wyoming

## **Apr - Jun 2014 (R2014Q2)**

### ***Shifts in Firm Age Data Trend***

In the current 2014Q2 Firm Age & Size (FAS) statistics, users should generally expect to observe a systematic downward shift of employment in young/startup firms (0 to 1 year) compared to the previous release, coupled with an upward shift of employment in the oldest firms (11+ years). This primarily results from an update to a source data file, the Business Dynamics Statistics (BDS), which has improved its longitudinal firm linking methodology.

### ***Residential Geography Enhancements***

LEHD has completed the incorporation of updated residential address information, which is used to generate establishment imputes for jobs at multi-establishment firms. Recent fluctuations related to these modifications should stabilize with this release.

### ***Startup Firm Employment in New Jersey***

Due to a data issue in the 2003 Unemployment Insurance wage files from New Jersey, there is a noticeable drop in employment measures for startup firms (0 to 1 year old) in that year. The series returns to stable levels in 2004Q2.

### ***Fluctuations in Utilities Sector (NAICS 22)***

Users may notice periodic fluctuations in longitudinal employment trend of the utilities sector (NAICS 22). In particular, volatile firm reporting patterns have traditionally been the main cause.

### ***States not included in R2014Q2***

The following states were not available for QWI production in this cycle because of delays in provision of input files, or because of data issues pending remediation:

- California
- Florida
- North Carolina
- Wyoming
- Massachusetts, Puerto Rico, Virgin Islands (*experimental production*)

## **Jan - Mar 2014 (R2014Q1)**

### ***Firm Age & Size Data Availability***

By construction, the Firm Age & Size (FAS) data series lags the latest published QWI time series by one quarter. Due to a delay in the provision of an input file, an extra quarter of lag has been applied to the FAS series in the current release, truncating it at 2012Q4. The input file has since been received and processed, and the series will return to the normal one-quarter lag for the 2014Q2 release.

### ***Residential and Workplace Geography Enhancements***

Research staff are continuing their efforts to make improvements to the methodologies and data sources used for geocoding residential and establishment-level information. Worker residence information is used as an input to the Unit-to-Worker (U2W) process, which imputes establishments to jobs at multi-establishment firms. During the ongoing maintenance, users may observe shifts in distribution of employment counts in small cells within states, which will stabilize over the next few quarters as improvements are implemented.

### ***States not included in R2014Q1***

The following states were not available for QWI production in this cycle because of delays in provision of input files or issues with input data received from Census state partners:

- California
- Connecticut
- Florida
- Minnesota
- Massachusetts, Puerto Rico, Virgin Islands (*experimental production*)

## Oct - Dec 2013 (R2013Q4)

### *Residential Address Revisions*

The methodology for identifying worker residence information has been modified this quarter to further improve the correspondence to the place of work (this is a follow-up to the enhancement made in 2012Q3). Residence information is used as an input to the unit-to-worker (U2W) process, which imputes establishments to jobs at multi-establishment firms. These improvements may result in some shifts in the reported employment within states.

### *Employment Shifts in NAICS 6241 and 8141 (home-based services)*

Beginning with 2013Q1 data, the Bureau of Labor Statistics (BLS) has implemented a nationwide administrative change in coding establishments that provide non-medical, home-based services for the elderly and people with disabilities. Please refer to

[https://www.bls.gov/news.release/archives/cewbd\\_12102013.htm](https://www.bls.gov/news.release/archives/cewbd_12102013.htm) for details.

To better classify such establishments, many states have switched such coding schemes from NAICS 814110 - Private Households, to NAICS 624120 - Services for the Elderly and Persons with Disabilities. This change has had a corresponding impact on the QWI. Users should generally expect to see an increase in NAICS 6241 jobs, coupled with a decrease in NAICS 8141 jobs. Employment shifts between 2012Q4 and 2013Q1 are particularly prominent in Florida, Kansas, Missouri, Nebraska, Oklahoma, Rhode Island, Texas, and Utah.

### *States not included in R2013Q4*

The following states were not available for QWI production in this cycle because of delays in provision of input files or issues with input data received from Census state partners:

- California
- New Jersey
- New Mexico
- Wyoming
- Massachusetts, Puerto Rico, Virgin Islands (*experimental production, pending initial release*)

## Jul - Sep 2013 (R2013Q3)

### *Geocode Revisions*

The Geocoded Address List (GAL) is the process that adds and updates geographic information to administrative data during the production of QWI data. In 2013, LEHD updated its GAL processing. The new GAL process reduces geographic reporting errors based on its improved resolution and processing of address data, improved geographic confidence and certainty, and updated data structure. These geographic improvements may lead to shifts in the intrastate distribution of employment, such as county-level employment totals.

### *QWI Time Series Adjustments*

A general review of the QWI data series identified several states and quarters that contained significant data quality issues, primarily related to unemployment insurance wage record reporting in the earlier

part of the time series. As these data do not meet current quality standards, QWI time series for the following states will begin in the quarter noted:

- Florida: 1997Q4
- Illinois: 1993Q2
- Virginia: 1998Q3

Research in-progress on data imputation methodologies may permit QWI release of expanded time series in a future quarter.

### ***States not included in R2013Q3***

The following states were skipped in this production cycle because of delays in provision of input files or issues with input data received from Census state partners:

- Louisiana
- New Mexico
- California
- Massachusetts, Puerto Rico, Virgin Islands (*experimental production, pending initial release*)

## **Jul - Sep 2012 (R2012Q3)**

### ***Improvement to Longitudinal Residential Address***

LEHD has incorporated an improvement to the residential address data used to impute place of work to jobs, as part of the unit-to-worker (U2W) process. The expanded address data should generally improve the accuracy of employment estimates for multi-establishment firms. Users may observe some shifts in the geographic distribution of employment within states.

## **Jan - Mar 2012 (R2012Q1)**

### ***Worker-Establishment Assignment***

In processing the QWI, an imputation method is used to impute establishments to jobs at multi-establishment firms. This process, referred to as unit-to-worker (or U2W), was found to have difficulty processing data for firms that experience significant changes in establishment structure. In response, the U2W process has been revised to improve processing and create more reliable estimates. This may result in some shifts in the geographic distribution of employment within states.

## **Oct - Dec 2008 (R2008Q4)**

### ***Successor-Predecessor Adjustment, Calculation of Average Earnings for Full Quarter Separations***

The methodology for adjusting employment flows for successor-predecessor transitions has been improved, which has had the greatest impact on the calculation of full quarter employment flows. In addition, we have corrected an error in the calculation of average earnings from full quarter separations. All current and historical QWI have been adjusted. For more information on this update, please visit: [https://lehd.ces.census.gov/doc/QWI\\_Update\\_081020.pdf](https://lehd.ces.census.gov/doc/QWI_Update_081020.pdf).

# State-Specific Notices

## California

### *Public Sector Worker Reporting*

Large shares of public sector workers are not reported prior to 2000. This reporting change has a particular impact on the education, health care, and public administration industries (NAICS 61, 62, 92).

### *Industry Reporting*

We have noted issues with the 1997-2002 transition of NAICS codes for several sectors, especially NAICS sector 55 (Management of Companies), resulting in large fluctuations in employment estimates during this period. Researchers are currently investigating methods to develop estimates with improved consistency.

## Connecticut

Due to an ongoing data quality issue, QWI data suppressions have been applied within NAICS 61 – Educational Services for 2015Q3 through 2017Q1 until further notice.

## Delaware

A legislative change in Delaware brought a large number of nonprofit firms into the UI system. As the universe of QWI is UI-covered employment, this change increased the universe of workers in Delaware's QWI by a significant margin, particularly in the health care and education sectors, starting in 2004Q2.

## Florida

Changes in the reporting of unemployment insurance (UI) wage records for jobs associated with Professional Employer Organizations (PEO) were implemented in Florida in 2013, in accordance with state legislation. These changes have resulted in difficulty matching records between the UI wage file and the Quarterly Census of Employment and Wages (QCEW), causing approximately 1.5% of jobs in Florida to be omitted when calculating the Quarterly Workforce Indicators. The bias at higher levels is generally small because the jobs are well dispersed across industry and geography, and weighting factors largely correct the employment counts. However, users may encounter shifts in small cells because of missing jobs. In addition, unusual spikes may be observed in separation measures, particularly in the fourth quarter of 2012. Future research will be conducted to correct this issue.

## Iowa

There are unusual shifts in the firm age time series between 2008 and 2012, particularly in the youngest and oldest firms. We are researching the inconsistencies in the longitudinal assignment of firm age, and expect to have a corrected time series in a later release.

## Maine

Due to an ongoing data quality issue, the QWI series for NAICS Sub-sector 524 – Insurance Carriers and Related Activities (and all associated industry groups) have been suppressed until further notice for the entire state in 2015Q3, 2015Q4, 2016Q1, and 2016Q2.

## Maryland

Due to ongoing issues in data reporting patterns, users may notice fluctuations in the published statistics for NAICS 61 - Education in Maryland starting in 2021Q1.

## Mississippi

There is an unusually high mismatch rate between firm identifiers on the unemployment insurance wage records and corresponding employers in the QCEW. This results in higher imputations in industry and geography for jobs that cannot be matched to employer records. While the mismatch is not sufficiently severe to preclude publication of the data, users should be aware of the issue. Research staff is currently investigating edits to improve the match rate across the job and employer data.

## New Jersey

Due to a data issue in 2003 Unemployment Insurance wage files from New Jersey, there is a noticeable drop in employment measures for startup firms (0 to 1 year old) in that year. The series returns to stable levels in 2004Q2.

## New York

Due to a change in the reporting pattern of public sector jobs in New York, users should expect higher employment counts being assigned to NAICS 92 – Public Administration starting in 2018Q1.

## Washington

Due to ongoing issues in data reporting patterns, users may notice fluctuations in the published statistics for NAICS Sub-sector 624 – Social Assistance (and all associated industry groups) in Washington State.