

Job-to-Job Flows (J2J): 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 Job-to-Job Flows (J2J). This Data Notices document provides information to users on important updates to J2J data and specific data issues that affect certain states. General data issues that affect J2J 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 will be revised as processes are improved or new data quality issues are uncovered.

Job-to-Job Flows (J2J)

Job-to-Job Flows (J2J) are new Census Bureau statistics on hires and separations in the United States, with a focus on worker reallocation across employers. Job-to-Job Flows provides overall job-to-job transition rates, the characteristics of origin and destination jobs for job-to-job transitions, as well as hires and separations of workers moving in and out of employment. These statistics are available nationally and at the state and Metropolitan Statistical Area (MSA) level, by industry and worker characteristics.

The source data for J2J is the Longitudinal Employer-Household Dynamics (LEHD) linked employer-employee microdata, which is a 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, 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 J2J can be found here:

https://lehd.ces.census.gov/doc/jobtojob_documentation_long.pdf.

Important Note on Quarterly Recalculations

The complete J2J time series is generally 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 J2J releases.

General Notices

May 2019 (R2019Q1)

For this release, J2J data at the national level are available from 2000Q2 to 2018Q1. Data for lower levels of geography may have shorter time series due to the availability of state data.

Next (R2019Q2) release may be skipped

The R2019Q2 (and potentially R2019Q3) release of J2J, J2JR, and J2JOD data may be skipped due to delays in the provision of input files by multiple states.

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, which are 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 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 there is relatively small impact on employer-to-employer flows in J2J. However, there is a much larger impact on flows between employment and nonemployment since a significant share of those transitions have been corrected through the impute. The magnitude of the impact will be greater in smaller cells. The J2J measures most affected include:

- * Main Job Accessions – Any Nonemployment Spell (NEHire)
- * Main Job Separations – Any Nonemployment Spell (ENSEp)
- * Main Job Accessions – Persistent Nonemployment Spell (NEPersist)
- * Main Job Separations – Persistent Nonemployment Spell (ENPersist)
- * Main Job Accessions – Full-qtr Nonemployment Spell (NEFullQ)
- * Main Job Separations – Full-qtr Nonemployment Spell (ENFullQ)
- * Stable Main Job Accessions – Persistent Nonemployment Spell (NEPersistS)
- * Stable Main Job Separations – Persistent Nonemployment Spell (ENPersistS)

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.j2j.feedback@census.gov.

States not current in R2019Q1

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Alaska (*latest quarter of data: 2016Q1*)
- Maine (*latest quarter of data: 2017Q4*)
- South Dakota (*latest quarter of data: 2016Q4*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

The time series for the following state has been suppressed through the latest quarter due to dependence upon the above non-current states:

- New Hampshire (*latest quarter of data: 2017Q4*)

January 2019 (R2018Q3)

For this release, J2J data at the national level are available from 2000Q2 to 2017Q3. Data for lower levels of geography may have shorter time series due to the availability of state data.

Separations in Hawaii, 2017Q3

A jump in separations to nonemployment was observed in Hawaii in 2017Q3 for series that have not been seasonally adjusted. This is likely related to a data reporting issue in that quarter, which will be reviewed for the next release.

Next planned release will be R2019Q1

The 2018Q4 release of J2J, J2JR, and J2JOD data will be skipped due to delays in processing following the recent government shutdown. The next planned release will be R2019Q1, expected by late spring.

States not current in R2018Q3

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Alaska (*latest quarter of data: 2016Q1*)
- South Dakota (*latest quarter of data: 2016Q4*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

August 2018 (R2018Q2)

For this release, J2J data at the national level are available from 2000Q2 to 2017Q2. Data for lower levels of geography may have shorter time series due to the availability of state data.

States not current in R2018Q2

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Alaska (*latest quarter of data: 2016Q1*)
- South Dakota (*latest quarter of data: 2016Q4*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

Processing error in J2JOD-US Data

Subsequent to release of this data, it was discovered that the J2JOD-US tables mistakenly contained duplicate records. This error will be corrected in the R2018Q3 release.

May 2018 (R2018Q1)

For this release, J2J data at the national level are available from 2000Q2 to 2017Q1. Data for lower levels of geography may have shorter time series due to the availability of state data.

States not current in R2018Q1

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Alaska (*latest quarter of data: 2016Q1*)
- Missouri (*latest quarter of data: 2016Q4*)
- South Dakota (*latest quarter of data: 2016Q4*)

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

February 2018 (R2017Q4)

For this release, J2J data at the national level are available from 2000Q2 to 2016Q4. Data for lower levels of geography may have shorter time series due to the availability of state data.

States not current in R2017Q4

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

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

November 2017 (R2017Q3)

For this release, J2J data at the national level are available from 2000Q2 to 2016Q3. Data for lower levels of geography may have shorter time series due to the availability of state data.

Return of states in R2017Q3

Wyoming and Idaho have submitted missing input files. Their time series as well as those for Montana and North Dakota are no longer suppressed and are available through the latest quarter. Using the newly expanded period where all states are available, we have recalculated our estimates of inter-relatedness between regions, and have accordingly made some modifications to the ranges where data meet the standard for release. Users may observe some minor changes to the start and end dates for some of the state and metro data series.

States not current in R2017Q3

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

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

August 2017 (R2017Q2)

For this release, J2J data at the national level are available from 2000Q2 to 2016Q2. Data for lower levels of geography may have shorter time series due to the availability of state data.

New data schema

New data schema (V4.2b-draft) has been released for review. See https://lehd.ces.census.gov/data/schema/V4.2b-draft/lehd_public_use_schema.html for more information.

Metropolitan Statistical Area (MSA)-level data released

This release provides a comprehensive look at the reallocation of workers across different sectors of the U.S. economy at the Metropolitan Statistical Area (MSA) level. Tabulations for Non-Metropolitan Area State-remainders are also provided. Rates and counts of transitions are tabulated by:

- NAICS sector
 - Sex by Age
 - Sex by Education
 - Race by Ethnicity

Origin-destination counts between MSAs as well as between MSAs and states or the nation are tabulated by:

- Origin NAICS sector by Destination NAICS sector
 - Sex by Age
 - Sex by Education
 - Race by Ethnicity

Only not seasonally adjusted data are available.

More detailed tabulations released

This release includes more detailed tabulations at the state and national level. Rates and counts of transitions are now additionally tabulated by:

- NAICS sector
 - Firm Age
 - Firm Size
 - Sex by Age
 - Sex by Education
 - Race by Ethnicity

Origin-destination counts are now additionally tabulated by:

- Origin NAICS sector by Destination NAICS sector
 - Origin Firm Age by Destination Firm Age
 - Origin Firm Size by Destination Firm Size
 - Sex by Age
 - Sex by Education
 - Race by Ethnicity

Only not seasonally adjusted data are available.

New earnings variables added

New earnings variables have been added, with average earnings at the origin and destination job available for workers changing jobs, average earnings at the origin job for transitions into non-employment, and average earnings at the destination job for those transitioning out of non-employment. Earnings for job stayers at the beginning and end of the quarter are also provided as a point of comparison.

Earnings data are currently not available for tabulations at the national level. These are under development, and will be provided in a future release.

States not current in R2017Q2

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Alaska (*latest quarter of data: 2016Q1*)
- Idaho (*latest quarter of data: 2015Q4, data will be available in R2017Q3*)
- Wyoming (*latest quarter of data: 2014Q4*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

The time series for the following states has been suppressed through the latest quarter due to dependence upon the above non-current states:

- Montana (*latest quarter of data: 2015Q3, data will be available in R2017Q3*)
- North Dakota (*latest quarter of data: 2015Q3, data will be available in R2017Q3*)

June 2017 (R2017Q1)

For this release, J2J data at the national level are available from 2000Q2 to 2016Q1. Data for lower levels of geography may have shorter time series due to the availability of state data.

States not current in R2017Q1

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Idaho (*latest quarter of data: 2015Q3*)
- Wyoming (*latest quarter of data: 2014Q3*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

The time series for the following states has been suppressed through the latest quarter due to dependence upon the above non-current states:

- Montana (*latest quarter of data: 2015Q3*)
- North Dakota (*latest quarter of data: 2015Q3*)

April 2017 (R2016Q4)

For this release, J2J data at the national level are available from 2000Q2 to 2015Q4. Data for lower levels of geography may have shorter time series due to the availability of state data.

New data schema

New data schema (V4.2a-draft) has been released for review. See https://lehd.ces.census.gov/data/schema/V4.2a-draft/lehd_public_use_schema.html for more information.

States not current in R2016Q4

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Idaho (*latest quarter of data: 2015Q3*)

- Michigan (*latest quarter of data: 2015Q2*)
- Wyoming (*latest quarter of data: 2014Q3*)
- Puerto Rico, Virgin Islands (*experimental production, data not available*)

The time series for the following states has been suppressed through the latest quarter due to dependence upon the above non-current states:

- Montana (*latest quarter of data: 2015Q3*)
- North Dakota (*latest quarter of data: 2015Q3*)

January 2017 (R2016Q3)

For this release, J2J data at the national level are available from 2000Q2 to 2015Q3. Data for lower levels of geography may have shorter time series due to the availability of state data.

New official data schema (V4.1.0) and documentation

New official data schema (V4.1.0) and documentation outlining the program's schema versioning process have been released. The new process provides machine-readable features as well as user-accessible documentation. See

https://lehd.ces.census.gov/data/schema/V4.1.0/lehd_public_use_schema.html for more information.

Updated R2016Q3

Due to an error in processing, the national data in the 2016Q3 J2J release were missing the most recent quarter, 2015Q3. These were replaced with revised data containing the missing quarter. Users may note counts and rates in earlier quarters may be slightly changed due to the updated estimation.

States not current in R2016Q3

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Michigan (*latest quarter of data: 2015Q2*)
- Wyoming (*latest quarter of data: 2014Q3*)
- Puerto Rico, Virgin Islands (*experimental production*)

June 2016 (R2016Q2)

For this release, J2J data at the national level are available from 2000Q2 to 2015Q2. Data for lower levels of geography may have shorter time series due to the availability of state data.

Extraneous variables removed

Initial J2JPU files associated with this release had extraneous variables and were replaced on the web server with files following established schema.

States not current in R2016Q2

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Wyoming (*latest quarter of data: 2014Q3*)
- Puerto Rico, Virgin Islands (*experimental production*)

January – March 2016 (R2016Q1)

For this release, J2J data at the national level are available from 2000Q2 to 2015Q1. Data for lower levels of geography may have shorter time series due to the availability of state data.

Extraneous variables removed

Initial J2JPU files associated with this vintage had extraneous variables and were replaced on web server with updated files.

States not current in R2016Q1

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Wyoming (*latest quarter of data: 2014Q3*)
- Puerto Rico, Virgin Islands (*experimental production*)

October – December 2015 (R2015Q4)

For this release, J2J data at the national level are available from 2000Q2 to 2014Q4. Data for lower levels of geography may have shorter time series due to the availability of state data.

Release of Massachusetts J2J (Beta) Flows

The first official release of Massachusetts J2J (Beta) flows has been included in this quarter's J2J publications.

States not current in R2015Q4

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Wyoming (*latest quarter of data: 2014Q3*)
- Puerto Rico, Virgin Islands (*experimental production*)

September 2015 (R2015Q2)

For this release, J2J data at the national level are available from 2000Q2 to 2014Q2. Data for lower levels of geography may have shorter time series due to the availability of state data.

New data schema

New data schema (V4.1c-draft) has been released for review. See https://lehd.ces.census.gov/data/schema/V4.1c-draft/lehd_public_use_schema.html for more information.

Origin-Destination data released

This release provides insights into the origin and destination job characteristics of workers changing jobs. Origin-destination counts are tabulated by:

- Origin State by Destination State
 - Origin NAICS sector by Destination NAICS sector
 - Origin Firm Age by Destination Firm Age
 - Origin Firm Size by Destination Firm Size
 - Sex by Age
 - Sex by Education

- Race by Ethnicity

Only non-seasonally adjusted data are available.

States not current in R2015Q2

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

- Kansas
- Louisiana (*latest quarter of data: 2014Q1*)
- Massachusetts, Puerto Rico, Virgin Islands (*experimental production*)

The time series for the following states has been suppressed through the latest quarter due to dependence upon the above non-current states:

- Connecticut
- Maine
- Missouri
- New Hampshire
- Rhode Island
- Vermont

June 2014 (R2014Q4)

For this release, J2J data at the national level are available from 2000Q2 to 2013Q4. Data for lower levels of geography may have shorter time series due to the availability of state data.

New data schema

New data schema (V4.1b-draft) has been released for review. See https://lehd.ces.census.gov/data/schema/V4.1b-draft/lehd_public_use_schema.html for more information.

State-level data released

This release provides a comprehensive look at the reallocation of workers across different sectors of the U.S. economy at the state and national level. Rates and counts of transitions are tabulated by:

- NAICS sector
- Firm Age
- Firm Size
- Sex by Age
- Sex by Education
- Race by Ethnicity

Both seasonally adjusted and not seasonally adjusted data are available.

States not current in R2014Q4

The following states are not available for J2J production through the latest quarter because of delays in the provision of input files, or because of data issues pending remediation:

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

The time series for the following states has been suppressed through the latest quarter due to dependence upon the above non-current states:

- Maine
- Missouri
- New Hampshire
- Rhode Island
- Vermont

November 2014 (R2014Q3)

For this release, J2J data at the national level are available from 2000Q2 to 2013Q3. Data for lower levels of geography may have shorter time series due to the availability of state data.

First beta release

Job-to-Job Flows (J2J) is a beta release of new national statistics on job mobility in the United States. It distinguishes hires and separations associated with job change from hires from non-employment and separations to non-employment. Future releases will be published at more detailed levels of aggregations, and will tabulate the origin and destination job characteristics of workers changing jobs.

State-Specific Notices

California

Public sector worker reporting

Large shares of public sector workers were not reported prior to 2000. This reporting change particularly impacts the education, health care, and public administration sectors (NAICS 61, 62, 92).

Industry reporting

Issues with the 1997-2002 transition of NAICS codes have been noted for several sectors, especially Management of Companies and Enterprises (NAICS 55). There are consequently large fluctuations in employment estimates during this period. Researchers are currently investigating methods to develop estimates with improved consistency.

Delaware

A legislative change in Delaware brought a large number of non-profit firms into the Unemployment Insurance (UI) system. As the universe of the data is UI-covered employment, this change increased the universe of workers in Delaware by a significant margin, particularly in the health care and education sectors (NAICS 61, 62), starting in 2004Q2.

Florida

Changes in the reporting of UI wage records for jobs associated with Professional Employer Organizations (PEO) were implemented in accordance with Florida's state legislation in 2013. These changes have resulted in difficulty matching records between the UI wage file and the QCEW, causing approximately 1.5% of jobs in Florida to be omitted when calculating employment statistics. The bias at higher levels is generally small because the jobs are well dispersed across industry and geography, and weighting factors largely correct 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 2012Q4. Future research will be conducted to correct this issue.

Hawaii

A large portion of public sector workers is not included in the data for the entire time series.

Iowa

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

Mississippi

There is an unusually high mismatch rate between firm identifiers on UI 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 New Jersey's 2003 UI wage files, 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.