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Data

LEHD makes available several data products that may be used to research and characterize workforce dynamics for specific groups. These data products include online applications, public-use data, and restricted-use microdata. The Quarterly Workforce Indicators (QWI), LEHD Origin-Destination Employment Statistics (LODES), Job-to-Job Flows (J2J), and Post-Secondary Employment Outcomes (PSEO) are available online for public use. Confidential microdata are available to qualified researchers with approved projects through restricted access use in Federal Statistical Research Data Centers (FSRDCs) (<https://www.census.gov/fsrdc>).

Note: The data released by LEHD are based on tabulated and modeled administrative data, which are subject to error. Because the estimates are not derived from a probability-based sample, no sampling error measures are applicable. However, the data are subject to nonsampling errors, which can be attributed to many sources: misreported data, late reporters whose records are missing and imputed, and geographic/industry edits and imputations. The accuracy of the data is impacted by the joint effects of these nonsampling errors. While no direct measurement of these joint effects has been obtained, precautionary steps are taken in all phases of collection and processing to minimize the impact of nonsampling errors.

Quarterly Workforce Indicators (QWI)

The Quarterly Workforce Indicators (QWI) are a set of economic indicators including employment, job creation, earnings, and other measures of employment flows. The QWI are reported based on detailed firm characteristics (geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity) and are available tabulated to national\*, state, metropolitan/micropolitan areas, county, and Workforce Investment Board (WIB) areas.

\*Note: National QWIs are currently released as Beta and can be accessed at [lehd.ces.census.gov/data/qwi\\_national\\_beta.html](http://lehd.ces.census.gov/data/qwi_national_beta.html) ([/data/qwi\\_national\\_beta.html](#)).

QWI data can be accessed through the following tools:

- Comparisons and Rankings with QWI Explorer (<https://qwiexplorer.ces.census.gov/>)
- Custom queries with the LED Extraction Tool (<https://ledextract.ces.census.gov/>)
- Mobile and web queries through the Census API (<http://www.census.gov/data/developers/data-sets/qwi.html>)
- Direct data download using the tool below

To browse QWI data files in their directory structure or to access them with a FTP program (must be able to access HTTP), go to [lehd.ces.census.gov/data/qwi/](http://lehd.ces.census.gov/data/qwi/) ([/data/qwi/](#)).

top

Download QWI data\*:

Access the most recent release of QWI data using the dropdown below. To view earlier releases, go to [lehd.ces.census.gov/data/qwi/](http://lehd.ces.census.gov/data/qwi/) ([/data/qwi/](#)). Each release contains the full QWI time series for the selected state. The latest quarter of data is typically three quarters behind the quarter of release (four quarters for firm age and size). We recommend that users do not combine data from separate releases.

State/Territory: 

Alabama

View Files

top

LEHD Origin-Destination Employment Statistics (LODES)

LEHD Origin-Destination Employment Statistics (LODES) used by OnTheMap (<https://onthemap.ces.census.gov>) are available for download below. Version 7 of LODES was enumerated by 2010 census blocks. Previous versions of LODES were enumerated with 2000 census blocks.

Data files are state-based and organized into three types: Origin-Destination (OD), Residence Area Characteristics (RAC), and Workplace Area Characteristics (WAC), all at census block geographic detail. Data is available for most states for the years 2002–2017.

To browse the LODES data files in their directory structure or to access them with a FTP program (must be able to access HTTP), go to [lehd.ces.census.gov/data/lodes/](http://lehd.ces.census.gov/data/lodes/) ([/data/lodes/](#)).

Download LODES data\*:

Version: 

LODES7

 State/Territory: 

Alabama

Type: 

Origin-Destination (OD)

View Files

top





Job-to-Job Flows (J2J)

Job-to-Job Flows (J2J) is a set of statistics on job mobility in the United States. J2J include statistics on: (1) the job-to-job transition rate, (2) hires and separations to and from employment, (3) earnings changes due to job change, and (4) characteristics of origin and destination jobs for job-to-job transitions. These statistics are available at the national, state, and metropolitan area levels and by worker and firm characteristics.

To browse the J2J data files in their directory structure or to access them with a FTP program (must be able to access HTTP), go to: [lehd.ces.census.gov/data/j2j/](http://lehd.ces.census.gov/data/j2j/) ([/data/j2j/](#)). J2J data can also be accessed via Job-to-Job Flows Explorer (<https://j2jexplorer.ces.census.gov>). This analysis and visualization tool allows for the construction of tables, maps, and charts to compare, aggregate and analyze flows by worker and firm characteristics.



QWI Help

Learn more about QWI by choosing one of the links below.

- QWI 101 ([/doc/QWI\\_101.pdf](#))  (<http://www.census.gov/main/www/pdf.html>) (549 KB)
- QWI Data Notices ([/doc/QWI\\_data\\_notices.pdf](#))  (<http://www.census.gov/main/www/pdf.html>) (362 KB)
- QWIPU Data Schema for Most Recent Release ([/data/schema/latest/lehd\\_public\\_use\\_schema.html](#))
- The LEHD Infrastructure Files and the Creation of the Quarterly Workforce Indicators ([/doc/technical\\_paper/tp-2006-01.pdf](#))  (<http://www.census.gov/main/www/pdf.html>) (252 KB)
- Confidentiality Protection in the Census Bureau's Quarterly Workforce Indicators ([/doc/technical\\_paper/tp-2006-02.pdf](#))  (<http://www.census.gov/main/www/pdf.html>) (252 KB)

LODES Help

Learn more about LODES by choosing one of the links below.

- OnTheMap Data Notices ([/applications/help/onthemap.html#data\\_notices](#))
- LODES Tech Doc ([/data/lodes/LODES7/LODESTechDoc7.4.pdf](#))  (<http://www.census.gov/main/www/pdf.html>) (146 KB)
- LODES Tech Doc Archive ([/data/lodes/LODES7/](#))
- Design Comparison Of LODES And ACS Commuting Data Products  (<https://ideas.repec.org/p/cen/wpaper/14-38.html>)

J2J Help

Learn more about J2J by choosing one of the links below.

- J2J 101 ([/doc/j2j\\_101.pdf](#))  (<http://www.census.gov/main/www/pdf.html>) (842 KB)
- Job-to-Job Flows: Quick Start Guide ([/doc/J2J\\_quickstart\\_guide.pdf](#))  (<http://www.census.gov/main/www/pdf.html>) (154 KB)

Download J2J data:

Use the selector tool below to choose and download files. Note: .xls format is available only for smaller files.

Version: 

R2019Q1

Region: 

United States

Type: 

j2j

Format: 

CSV

View Files

top

Post-Secondary Employment Outcomes (PSEO) (Experimental)

Post-Secondary Employment Outcomes (PSEO) is a new set of statistics on the earnings and employment outcomes of graduates of select post-secondary institutions in the United States, and is constructed using LEHD data. Earnings Outcomes reports earnings by institution, degree field, degree level and graduation cohort for 1, 5 and 10 years after graduation. Employment Flows tabulations provide the destination industry and geography of employment for graduates of an institution by degree level, degree field, and graduation cohort, for one, five, and 10 years after graduation. A limited number of institutions are available as part of the pilot release, but future updates will include additional post-secondary institutions.

Documentation and CSV files are available for download here: [lehd.ces.census.gov/data/pseo\\_experimental.html](https://lehd.ces.census.gov/data/pseo_experimental.html) ([/data/pseo\\_experimental.html](#))

To browse the PSEO data files in their directory structure or to access them with a FTP program (must be able to access HTTP), go to: [lehd.ces.census.gov/data/pseo/](https://lehd.ces.census.gov/data/pseo/) ([/data/pseo/](#)).

PSEO data can also be accessed via the PSEO Explorer ([/data/pseo\\_explorer.html](#)) visualization tool. This light-weight interactive tool allows for comparisons of employment outcomes through dynamic grouped bar charts and employment flows through Sankey diagrams.

top

Restricted-Use Microdata

In addition to the public-use Quarterly Workforce Indicators data and LODES data, LEHD microdata are available for research use in approved projects. Researchers interested in using restricted-use LEHD data must submit a proposal to conduct research at a secure Federal Statistical Research Data Center (FSRDC) (<https://www.census.gov/about/adrm/fsrdc.html>). LEHD data available in the RDCs includes job-level quarterly earnings history data, person-level demographic data, establishment-level firm characteristics, and establishment-level Quarterly Workforce Indicators. Detailed information about restricted-use LEHD data, including available states and years, is on the CES LEHD Data page (<https://www.census.gov/programs-surveys/ces/data/restricted-use-data/lehd-data.html>).

top

LEHD Data Citations

{CURRENT DATE} and {CURRENT YEAR} refer to the date and year in which the data were accessed.  
{DATA VERSION} (e.g. R2017Q2) can be found in the "version" text file that is distributed with each data series.

Quarterly Workforce Indicators (QWI) Data

U.S. Census Bureau. ({CURRENT YEAR}). Quarterly Workforce Indicators (1990-2018) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed on {CURRENT DATE} at <https://lehd.ces.census.gov/data/#qwi> ([/data/#qwi](#)). {DATA VERSION} [version]

LEHD Origin-Destination Employment Statistics (LODES) Data

U.S. Census Bureau. ({CURRENT YEAR}). LEHD Origin-Destination Employment Statistics Data (2002-2017) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed on {CURRENT DATE} at <https://lehd.ces.census.gov/data/#lodes> ([/data/#lodes](#)). LODES 7.4 [version]



Job-to-Job Flows (J2J) Data

U.S. Census Bureau. ({CURRENT YEAR}). Job-to-Job Flows Data (2000-2018) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed on {CURRENT DATE} at <https://lehd.ces.census.gov/data/#j2j> ([/data/#j2j](#)). {DATA VERSION} [version]

Post-Secondary Employment Outcomes (PSEO) Data

U.S. Census Bureau. ({CURRENT YEAR}). Post-Secondary Employment Outcomes Data (Experimental) (2001-2016) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed on {CURRENT DATE} at [https://lehd.ces.census.gov/data/pseo\\_experimental.html](https://lehd.ces.census.gov/data/pseo_experimental.html) ([/data/pseo\\_experimental.html](#)). {DATA VERSION} [version]

top

\* All CSV files are compressed using a GZip (<http://www.gzip.org>)  algorithm, which appends a ".gz" to the end of the filename. Most commonly used compression/extraction software packages can decompress these files (see [http://en.wikipedia.org/wiki/Zip\\_\(file\\_format\)](http://en.wikipedia.org/wiki/Zip_(file_format))) ([http://en.wikipedia.org/wiki/Zip\\_\(file\\_format\)](#))  ).

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