# LEHD Public Use Data Schema for J2J Explorer (beta) V4.2-rc1

# Contents

( Printable version )

---

> **!** **Important**
> This document is not an official Census Bureau publication. It is compiled from publicly accessible information by Lars Vilhuber (Labor Dynamics Institute, Cornell University). Feedback is welcome. Please write us at lars.vilhuber@cornell.edu.

---

# 1 Purpose

The public-use Job-to-Job Flows (J2J) data provided by the Longitudinal Employer-Household Dynamics Program are accessible through the J2J Explorer (beta). This document provides information on the schema used to format files downloaded through that application.

# 2 Additional information

The complete LEHD schema is documented in lehd_public_use_schema.pdf. LEHD-provided SHP files are separately described in lehd_shapefiles.pdf. The naming conventions of the data files is documented in lehd_csv_naming.pdf.

# 3 Extends

This is the first version of the schema for the J2J Explorer (beta) application.

# 4 Supersedes

No prior version.

# 5 Basic Schema

Each data file is structured as a CSV file. The first columns contain [identifiers], subsequent columns contain [indicators], followed by status flags.

## 5.1 Generic structure

| Column name |
|---|
| [ Identifier1 ] |
| [ Identifier2 ] |
| [ Identifier3 ] |
| [ … ] |
| [ Indicator 1 ] |
| [ Indicator 2 ] |
| [ Indicator 3 ] |
| [ … ] |
| [ Status Flag 1 ] |
| [ Status Flag 2 ] |
| [ Status Flag 3 ] |
| [ … ] |

Note: The J2J Explorer (beta) provides the full set of J2J indicators in addition to two composite Origin-Destination indicators. Files downloadable through other means may be structured differently, please consult the complete LEHD schema in lehd_public_use_schema.pdf.

## 5.2 Identifiers

Records, unless otherwise noted, are parts of time-series data. Unique record identifiers are noted below, by file type. Identifiers without the year and quarter component can be considered a series identifier.

### 5.2.1 Identifiers for j2j

( lehd_identifiers_j2j.csv )

| Variable | Type | label |
|---|---|---|
| periodicity | Char(1) | Periodicity of report |
| seasonadj | Char(1) | Seasonal Adjustment Indicator |
| geo_level | Char(1) | Group: Geographic level of aggregation |
| geography | Char(8) | Group: Geography code |
| ind_level | Char(1) | Group: Industry level of aggregation |
| industry | Char(5) | Group: Industry code |
| ownercode | Char(3) | Group: Ownership group code |
| sex | Char(1) | Group: Gender code |
| agegrp | Char(3) | Group: Age group code (WIA) |
| race | Char(2) | Group: race |
| ethnicity | Char(2) | Group: ethnicity |
| education | Char(2) | Group: education |
| firmage | Char(1) | Group: Firm Age group |
| firmsize | Char(1) | Group: Firm Size group |
| year | Num | Time: Year |
| quarter | Num | Time: Quarter |
| agg_level | Num | Aggregation Level Indicator |

### 5.2.2 Identifiers for j2jod

( lehd_identifiers_j2jod.csv )

| Variable | Type | label |
|---|---|---|
| periodicity | Char(1) | Periodicity of report |
| seasonadj | Char(1) | Seasonal Adjustment Indicator |
| geo_level | Char(1) | Group: Geographic level of aggregation of destination job |
| geography | Char(8) | Group: Geography code of destination job |
| ind_level | Char(1) | Group: Industry level of aggregation of destination job |
| industry | Char(5) | Group: Industry code of destination job |
| ownercode | Char(3) | Group: Ownership group code of destination job |
| sex | Char(1) | Group: Gender code |
| agegrp | Char(3) | Group: Age group code (WIA) |
| race | Char(2) | Group: race |
| ethnicity | Char(2) | Group: ethnicity |
| education | Char(2) | Group: education |
| firmage | Char(1) | Group: Firm Age group |
| firmsize | Char(1) | Group: Firm Size group |
| year | Num | Time: Year |
| quarter | Num | Time: Quarter |
| agg_level | Num | Aggregation Level Indicator |
| geo_level_orig | Char(1) | Group: Geographic level of aggregation of origin job |
| geography_orig | Char(8) | Group: Geography code of origin job |
| ind_level_orig | Char(1) | Group: Industry level of aggregation of origin job |
| industry_orig | Char(5) | Group: Industry code of origin job |
| ownercode_orig | Char(3) | Group: Ownership group code of origin job |
| firmage_orig | Char(1) | Group: Firm Age group of origin job |
| firmsize_orig | Char(1) | Group: Firm Size group of origin job |

## 5.3 Indicators

The following tables and associated mapping files list the indicators available on each file. The *'Indicator Variable'* is the short name of the variable on the CSV files, suitable for machine processing in a wide variety of statistical applications. When given, the *'Alternate name'* may appear in related documentation and articles. The *'Status Flag'* is used to indicate publication or data quality status (see Status Flags). The *'Indicator Name'* is a more verbose name for the indicator. The *'Description'* provides a complete description of the indicator. *'Units'* identify the type of variable: counts, rates, monetary amounts. *'Concept'* classifies each indicator in a descriptive category: employment, hire, separation, earnings, or flow. The *'Base'* indicates the denominator used to compute the statistic, and may be *1*.

### 5.3.1 Job-to-job flow counts (J2J)

( variables_j2j.csv )

| Indicator Variable | Alternate Name | Status Flag | Indicator Name | Description | Units | Concept | Base |
|---|---|---|---|---|---|---|---|
| MHire | all_doma2 | sMHire | Hires | Hires into a worker's main job | Count | Hire | 1 |
| MSep | all_doms2 | sMSep | Separations | Separations from a worker's main job | Count | Separation | 1 |
| MJobStart | first_dome | sMJobStart | Main Job Starts | New main jobs due to hires and instances when a previously existing secondary job becomes the main source of earnings | Count | Hire | 1 |
| MJobEnd | last_domb | sMJobEnd | Main Job Ends | End of main jobs due to separations and instances when another job becomes the main source of earnings | Count | Separation | 1 |
| EEHire | ee_doma2 | sEEHire | Job-to-Job Hires (Continuous Employment) | Hires following a separation with no observed nonemployment spell | Count | Hire | 1 |
| EESep | ee_doms2 | sEESep | Job-to-Job Separations (Continuous Employment) | Separations followed by a hire with no observed nonemployment spell | Count | Separation | 1 |
| AQHire | aq_doma2 | sAQHire | Job-to-Job Hires (Brief Nonemployment) | Hires following a separation with a short nonemployment spell | Count | Hire | 1 |
| AQSep | aq_doms2 | sAQSep | Job-to-Job Separations (Brief Nonemployment) | Separations followed by a hire with a short nonemployment spell | Count | Separation | 1 |
| J2JHire | j2j_doma2 | sJ2JHire | Job-to-Job Hires | Hires following a separation (short or no observed nonemployment spell) | Count | Hire | 1 |
| J2JSep | j2j_doms2 | sJ2JSep | Job-to-Job Separations | Separations followed by a hire (short or no observed nonemployment spell) | Count | Separation | 1 |

| Indicator Variable | Alternate Name | Status Flag | Indicator Name | Description | Units | Concept | Base |
|---|---|---|---|---|---|---|---|
| NEHire | ne_doma2 | sNEHire | Hires from Nonemployment | Hires following any spell of nonemployment | Count | Hire | 1 |
| ENSep | en_doms2 | sENSep | Separations to Nonemployment | Separations into any spell of nonemployment | Count | Separation | 1 |
| NEPersist | ne2_doma2 | sNEPersist | Hires from Persistent Nonemployment | Hires following a spell of persistent nonemployment | Count | Hire | 1 |
| ENPersist | en2_doms2 | sENPersist | Separations to Persistent Nonemployment | Separations into a spell of persistent nonemployment | Count | Separation | 1 |
| NEFullQ | ne2p_doma2 | sNEFullQ | Hires from Full-Quarter Nonemployment | Hires following a spell of full-quarter nonemployment (does not include intermittently employed) | Count | Hire | 1 |
| ENFullQ | en2p_doms2 | sENFullQ | Separations to Full-Quarter Nonemployment | Separations into a spell of full-quarter nonemployment (does not include intermittently employed) | Count | Separation | 1 |
| MainB | domB | sMainB | Employment (Beginning of Quarter) | Main jobs held on the first day of the quarter | Count | Employment | 1 |
| MainE | domE | sMainE | Employment (End of Quarter) | Main jobs held on the last day of the quarter | Count | Employment | 1 |
| EESepS | fee_doms2 | sEESepS | Stable Job-to-Job Separations (Continuous Employment) | Separations from stable employment followed by a hire to stable employment with no observed nonemployment spell | Count | Separation | 1 |
| EEHireS | fee_doma2 | sEEHireS | Stable Job-to-Job Hires (Continuous Employment) | Hires to stable employment following a separation from stable employment with no observed nonemployment spell | Count | Hire | 1 |
| AQSepS | faq_doms2 | sAQSepS | Stable Job-to-Job Separations (Brief Nonemployment) | Separations from stable employment followed by a hire to stable employment with a short nonemployment spell | Count | Separation | 1 |

| Indicator Variable | Alternate Name | Status Flag | Indicator Name | Description | Units | Concept | Base |
|---|---|---|---|---|---|---|---|
| AQHireS | faq_doma2 | sAQHireS | Stable Job-to-Job Hires (Brief Nonemployment) | Hires to stable employment following a separation from stable employment with a short nonemployment spell | Count | Hire | 1 |
| NEPersistS | fne2_doma2 | sNEPersistS | Stable Hires from Persistent Nonemployment | Hires to stable employment following a spell of persistent nonemployment | Count | Hire | 1 |
| ENPersistS | fen2_doms2 | sENPersistS | Stable Separations to Persistent Nonemployment | Separations from stable employment into a spell of persistent nonemployment | Count | Separation | 1 |
| JobStayS | f4dombe | sJobStayS | Stable Job Stayer | Stable main jobs that did not change during the reference quarter | Count | Employment | 1 |
| MainBS | fdomb | sMainBS | Stable Employment (Beginning of Quarter) | Stable main jobs held on the first day of the quarter | Count | Employment | 1 |
| MainES | fdome | sMainES | Stable Employment (End of Quarter) | Stable main jobs held on the last day of the quarter | Count | Employment | 1 |
| NEHireSEarn | fne2_doma2_kfqde | sNEHireSEarn | Average Earnings following Stable Hires from Persistent Nonemployment | Average quarterly earnings following hires to stable employment from a spell of persistent nonemployment | Dollars | Earnings | NEPersistS |
| ENSepSEarn | fen2_doms2_jfqse | sENSepSEarn | Average Earnings prior to Stable Separations to Persistent Nonemployment | Average quarterly earnings prior to separations from stable employment into a spell of persistent nonemployment | Dollars | Earnings | ENPersistS |
| JobStaySEarnOrig | f4dombe_jfqe | sJobStaySEarnOrig | Average Earnings prior to Stable Job Stayer | Average quarterly earnings in the previous quarter when workers stayed in a stable job | Dollars | Earnings | JobStayS |
| JobStaySEarnDest | f4dombe_kfqe | sJobStaySEarnDest | Average Earnings following Stable Job Stayer | Average quarterly earnings in the quarter when workers stayed in a stable job | Dollars | Earnings | JobStayS |

### 5.3.2 Job-to-job flow rates (J2JR)

( variables_j2jr.csv )

Rates are computed from published data, and are provided as a convenience.

| Indicator Variable | Alternate Name | Status Flag | Indicator Name | Description | Units | Concept | Base |
|---|---|---|---|---|---|---|---|
| MHireR | all_doma2_rate | sMHireR | Hires | Rate of hires into a worker's main job | Rate | Hire | ((MainB+MainE) |
| MSepR | all_doms2_rate | sMSepR | Separations | Rate of separations from a worker's main job | Rate | Separation | ((MainB+MainE) |
| MJobStartR | first_dome_rate | sMJobStartR | Main Job Starts | Rate of new main jobs due to hires and instances when a previously existing secondary job becomes the main source of earnings | Rate | Hire | ((MainB+MainE) |
| MJobEndR | last_domb_rate | sMJobEndR | Main Job Ends | Rate of end of main jobs due to separations and instances when another job becomes the main source of earnings | Rate | Separation | ((MainB+MainE) |
| EEHireR | ee_doma2_rate | sEEHireR | Job-to-Job Hires (Continuous Employment) | Rate of hires following a separation with no observed nonemployment spell | Rate | Hire | ((MainB+MainE) |
| EESepR | ee_doms2_rate | sEESepR | Job-to-Job Separations (Continuous Employment) | Rate of separations followed by a hire with no observed nonemployment spell | Rate | Separation | ((MainB+MainE) |
| AQHireR | aq_doma2_rate | sAQHireR | Job-to-Job Hires (Brief Nonemployment) | Rate of hires following a separation with a short nonemployment spell | Rate | Hire | ((MainB+MainE) |
| AQSepR | aq_doms2_rate | sAQSepR | Job-to-Job Separations (Brief Nonemployment) | Rate of separations followed by a hire with a short nonemployment spell | Rate | Separation | ((MainB+MainE) |
| J2JHireR | j2j_doma2_rate | sJ2JHireR | Job-to-Job Hires | Rate of hires following a separation (short or no observed nonemployment spell) | Rate | Hire | ((MainB+MainE) |
| J2JSepR | j2j_doms2_rate | sJ2JSepR | Job-to-Job Separations | Rate of separations followed by a hire (short or no observed nonemployment spell) | Rate | Separation | ((MainB+MainE) |
| NEHireR | ne_doma2_rate | sNEHireR | Hires from Nonemployment | Rate of hires following any spell of nonemployment | Rate | Hire | ((MainB+MainE) |
| ENSepR | en_doms2_rate | sENSepR | Separations to Nonemployment | Rate of separations into any spell of nonemployment | Rate | Separation | ((MainB+MainE) |

| Indicator Variable | Alternate Name | Status Flag | Indicator Name | Description | Units | Concept | Base |
|---|---|---|---|---|---|---|---|
| NEPersistR | ne2_doma2_s | sNEPersistR | Hires from Persistent Nonemployment | Rate of hires following a spell of persistent nonemployment | Rate | Hire | ((MainB+MainE) |
| ENPersistR | en2_doms2_s | sENPersistR | Separations to Persistent Nonemployment | Rate of separations into a spell of persistent nonemployment | Rate | Separation | ((MainB+MainE) |
| NEFullQR | ne2p_doma3_s | sNEFullQR | Hires from Full-Quarter Nonemployment | Rate of hires following a spell of full-quarter nonemployment (does not include intermittently employed) | Rate | Hire | ((MainB+MainE) |
| ENFullQR | en2p_doms3_s | sENFullQR | Separations to Full-Quarter Nonemployment | Rate of separations into a spell of full-quarter nonemployment (does not include intermittently employed) | Rate | Separation | ((MainB+MainE) |

### 5.3.3 Job-to-job flow Origin-Destination (J2JOD)

( variables_j2jod.csv )

| Indicator Variable | Alternate Name | Status Flag | Indicator Name | Description | Units | Concept | Base |
|---|---|---|---|---|---|---|---|
| EE | ee_doma2 | sEE | Job-to-Job Flows (Continuous Employment) | Job flows with no observed nonemployment spell | Count | Hire | 1 |
| AQHire | aq_doma2 | sAQHire | Job-to-Job Flows (Brief Nonemployment) | Job flows with a short nonemployment spell | Count | Hire | 1 |
| EES | fee_doma2 | sEES | Stable Job-to-Job Flows (Continuous Employment) | Job flows from stable employment into stable employment with no observed nonemployment spell | Count | Hire | 1 |
| AQHireS | faq_doma2 | sAQHireS | Stable Job-to-Job Flows (Brief Nonemployment) | Job flows from stable employment into stable employment with a short nonemployment spell | Count | Hire | 1 |
| EESEarn_Orig | fee_doma2_jEESEarn_Orig | sEESEarn_Orig | Average Earnings prior to Job-to-Job Flows (Continuous Employment) | Average quarterly earnings prior to job flows with no observed nonemployment spell | Dollars | Earnings | EES |
| EESEarn_Dest | fee_doma2_jEESEarn_Dest | sEESEarn_Dest | Average Earnings following Job-to-Job Flows (Continuous Employment) | Average quarterly earnings following job flows with no observed nonemployment spell | Dollars | Earnings | EES |
| AQHireSEarn_Orig | faq_doma2_jAQHireSEarn_Orig | sAQHireSEarn_Orig | Average Earnings prior to Job-to-Job Flows (Brief Nonemployment) | Average quarterly earnings prior to job flows with a short nonemployment spell | Dollars | Earnings | AQHireS |
| AQHireSEarn_Dest | faq_doma2_jAQHireSEarn_Dest | sAQHireSEarn_Dest | Average Earnings following Job-to-Job Flows (Brief Nonemployment) | Average quarterly earnings following job flows with a short nonemployment spell | Dollars | Earnings | AQHireS |

### 5.3.4   Job-to-job flow computed by the app (J2JAPP)

( variables_j2japp.csv )

| Indicator Variable | Alternate Name | Status Flag | Indicator Name | Description | Units | Concept | Base |
|---|---|---|---|---|---|---|---|
| J2J | j2j_doma2 | sJ2J | Job-to-Job Flows | Job flows with a short or no observed nonemployment spell | Count | Hire | 1 |
| J2JS | fj2j_doma2 | sJ2JS | Stable Job-to-Job Flows | Job flows from stable employment into stable employment with a short or no observed nonemployment spell | Count | Hire | 1 |
| J2JSEarn_Orig | fj2j_doma2_sjl2earn_o | J2JSEarn_Orig | Average Earnings prior to Job-to-Job Flows | Average quarterly earnings prior to job flows with a short or no observed nonemployment spell | Dollars | Earnings | J2JS |
| J2JSEarn_Dest | fj2j_doma2_sjl2earn_d | J2JSEarn_Dest | Average Earnings following Job-to-Job Flows | Average quarterly earnings following job flows with a short or no observed nonemployment spell | Dollars | Earnings | J2JS |

# 6  Categorical Variables

Categorical variable descriptions are displayed above each table, with the variable name shown in parentheses. Unless otherwise stated, every possible value/label combination for each categorical variable is listed. Please note that not all values will be available in every table.

## 6.1  agegrp

( label_agegrp.csv )

| agegrp | label |
|--------|-------|
| A00 | All Ages (14-99) |
| A01 | 14-18 |
| A02 | 19-21 |
| A03 | 22-24 |
| A04 | 25-34 |
| A05 | 35-44 |
| A06 | 45-54 |
| A07 | 55-64 |
| A08 | 65-99 |

## 6.2  concept_draft

( label_concept_draft.csv )

| Concept | Definition |
|---------|------------|
| Hire | Measure derived from the the first quarter that a job is the main source of income (usually a hire) |
| Separation | Measure derived from the last quarter that a job is the main source of income (usually a separation) |
| Employment | Measure counting the stock of all jobs at a point in time |
| Earnings | Measure of average earnings associated with a base employment or job transition measure |

## 6.3  education

( label_education.csv )

| education | label |
|-----------|-------|
| E0 | All Education Categories |
| E1 | Less than high school |
| E2 | High school or equivalent, no college |
| E3 | Some college or Associate degree |
| E4 | Bachelor's degree or advanced degree |
| E5 | Educational attainment not available (workers aged 24 or younger) |

## 6.4  ethnicity

( label_ethnicity.csv )

| ethnicity | label |
|-----------|-------|
| A0 | All Ethnicities |
| A1 | Not Hispanic or Latino |
| A2 | Hispanic or Latino |

## 6.5 firmage

( label_firmage.csv )

| firmage | label |
|---------|-------|
| 0 | All Firm Ages |
| 1 | 0-1 Years |
| 2 | 2-3 Years |
| 3 | 4-5 Years |
| 4 | 6-10 Years |
| 5 | 11+ Years |
| N | Firm Age Not Available For Public-Sector Firms |

## 6.6 firmsize

( label_firmsize.csv )

| firmsize | label |
|----------|-------|
| 0 | All Firm Sizes |
| 1 | 0-19 Employees |
| 2 | 20-49 Employees |
| 3 | 50-249 Employees |
| 4 | 250-499 Employees |
| 5 | 500+ Employees |
| N | Firm Size Not Available For Public-Sector Firms |

## 6.7 ownercode

( label_ownercode.csv )

| ownercode | label |
|-----------|-------|
| A00 | State and local government plus private ownership |
| A01 | Federal government |
| A05 | All Private |

## 6.8 periodicity

( label_periodicity.csv )

| periodicity | label |
|-------------|-------|
| A | Annual data |
| Q | Quarterly data |

## 6.9 quarter

( label_quarter.csv )

| quarter | label |
|---|---|
| 1 | 1st Quarter of the Year (January-March) |
| 2 | 2nd Quarter of the Year (April-June) |
| 3 | 3rd Quarter of the Year (July-September) |
| 4 | 4th Quarter of the Year (October-December) |

## 6.10   race

( label_race.csv )

| race | label |
|---|---|
| A0 | All Races |
| A1 | White Alone |
| A2 | Black or African American Alone |
| A3 | American Indian or Alaska Native Alone |
| A4 | Asian Alone |
| A5 | Native Hawaiian or Other Pacific Islander Alone |
| A6 | Some Other Race Alone (Not Used) |
| A7 | Two or More Race Groups |

## 6.11   seasonadj

( label_seasonadj.csv )

| seasonadj | label |
|---|---|
| S | Seasonally adjusted |
| U | Not seasonally adjusted |

## 6.12   sex

( label_sex.csv )

| sex | label |
|---|---|
| 0 | All Sexes |
| 1 | Male |
| 2 | Female |

## 6.13   stusps

( label_stusps.csv )

| geography | stusps |
|---|---|
| 00 | US |
| 01 | AL |
| 02 | AK |
| 04 | AZ |
| 05 | AR |
| 06 | CA |
| 08 | CO |
| 09 | CT |
| 10 | DE |
| 11 | DC |
| 12 | FL |

| geography | stusps |
|-----------|--------|
| 13 | GA |
| 15 | HI |
| 16 | ID |
| 17 | IL |
| 18 | IN |
| 19 | IA |
| 20 | KS |
| 21 | KY |
| 22 | LA |
| 23 | ME |
| 24 | MD |
| 25 | MA |
| 26 | MI |
| 27 | MN |
| 28 | MS |
| 29 | MO |
| 30 | MT |
| 31 | NE |
| 32 | NV |
| 33 | NH |
| 34 | NJ |
| 35 | NM |
| 36 | NY |
| 37 | NC |
| 38 | ND |
| 39 | OH |
| 40 | OK |
| 41 | OR |
| 42 | PA |
| 44 | RI |
| 45 | SC |
| 46 | SD |
| 47 | TN |
| 48 | TX |
| 49 | UT |
| 50 | VT |
| 51 | VA |
| 53 | WA |
| 54 | WV |
| 55 | WI |
| 56 | WY |
| 72 | PR |
| 78 | VI |

## 6.14  Industry

### 6.14.1  Industry levels

( label_ind_level.csv )

| ind_level | label |
|-----------|-------|
| A | All Industries |
| S | NAICS Sectors |
| 3 | NAICS Subsectors |
| 4 | NAICS Industry Groups |

### 6.14.2  Industry

( label_industry.csv )

Only a small subset of available values shown. The 2017 NAICS (North American Industry Classification System) is used for all years. QWI releases prior to R2018Q1 used the 2012 NAICS classification (see Schema v4.1.3). For a full listing of all valid 2017 NAICS codes, see http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2017.

| industry | label | ind_level |
|----------|-------|-----------|
| 00 | All NAICS Sectors | A |
| 000 | All NAICS Subsectors | A |
| 0000 | All NAICS Industry Groups | A |
| 11 | Agriculture, Forestry, Fishing and Hunting | 2 |
| 111 | Crop Production | 3 |
| 1111 | Oilseed and Grain Farming | 4 |
| 1112 | Vegetable and Melon Farming | 4 |
| . . . | | |
| 2382 | Building Equipment Contractors | 4 |
| 2383 | Building Finishing Contractors | 4 |
| 2389 | Other Specialty Trade Contractors | 4 |
| 31-33 | Manufacturing | 2 |
| 311 | Food Manufacturing | 3 |
| 3111 | Animal Food Manufacturing | 4 |
| 3112 | Grain and Oilseed Milling | 4 |
| 3113 | Sugar and Confectionery Product Manufacturing | 4 |
| . . . | | |

## 6.15  Geography

### 6.15.1  Geographic levels

Geography labels for data files are provided in separate files, by scope. Each file *label_geograpy_SCOPE.csv* may contain one or more types of records as flagged by geo_level. For convenience, a composite file containing all geocodes is available as label_geography.csv. The 2017 vintage of Census TIGER/Line geography is used for all tabulations as of the R2018Q1 release.

Shapefiles are described in a separate document.

( label_geo_level.csv )

| geo_level | label | description | sourceurl |
|---|---|---|---|
| B | Metropolitan (complete) | Identifies 5-digit CBSA code for metropolitan areas provided by the Census Bureau's Geography Division. Balance of state including micropolitan areas are identified by custom codes as [ST]999 | http://www.census.gov/-population/metro/ |
| C | Counties | Identifies 5-digit FIPS/ANSI code for counties | https://www.census.gov/geo/-reference/codes/cou.html |
| M | Metropolitan/Micropolitan (state part) | Identifies 7-digit code constructed from the 2-digit state FIPS code and the 5-digit CBSA code provided by the Census Bureau's Geography Division | http://www.census.gov/-population/metro/ |
| N | National (50 States + DC) | Custom code using *00* to denote national scope | |
| S | States | Identifies 2-digit FIPS/ANSI codes | https://www.census.gov/geo/-reference/ansi_statetables.html |
| W | Workforce Investment Areas | 2-digit state FIPS code and the 6-digit WIA identifier provided by LED State Partners | |

### 6.15.2  National and state-level values

( label_fipsnum.csv )

The file label_fipsnum.csv contains values and labels for all entities of geo_level *N* or *S*, and is a summary of separately available files.

| geography | label | geo_level |
|---|---|---|
| 00 | National (50 States + DC) | N |
| 01 | Alabama | S |
| 02 | Alaska | S |
| 04 | Arizona | S |
| 05 | Arkansas | S |
| 06 | California | S |
| 08 | Colorado | S |
| . . . | | |
| 45 | South Carolina | S |
| 46 | South Dakota | S |
| 47 | Tennessee | S |
| 48 | Texas | S |
| 49 | Utah | S |

| geography | label | geo_level |
|-----------|-------|-----------|
| 50 | Vermont | S |
| 51 | Virginia | S |
| 53 | Washington | S |

### 6.15.3 State postal codes

Some parts of the schema use (lower or upper-case) state postal codes.

( label_stusps.csv )

| geography | stusps |
|-----------|--------|
| 00 | US |
| 01 | AL |
| 02 | AK |
| 04 | AZ |
| 05 | AR |
| 06 | CA |
| 08 | CO |
| 09 | CT |
| 10 | DE |
| 11 | DC |
| 12 | FL |
| 13 | GA |
| 15 | HI |
| 16 | ID |
| 17 | IL |
| 18 | IN |
| 19 | IA |
| 20 | KS |
| 21 | KY |
| 22 | LA |
| 23 | ME |
| 24 | MD |
| 25 | MA |
| 26 | MI |
| 27 | MN |
| 28 | MS |
| 29 | MO |
| 30 | MT |
| 31 | NE |
| 32 | NV |
| 33 | NH |
| 34 | NJ |
| 35 | NM |
| 36 | NY |
| 37 | NC |
| 38 | ND |
| 39 | OH |
| 40 | OK |
| 41 | OR |
| 42 | PA |
| 44 | RI |
| 45 | SC |
| 46 | SD |
| 47 | TN |
| 48 | TX |

| geography | stusps |
|-----------|--------|
| 49 | UT |
| 50 | VT |
| 51 | VA |
| 53 | WA |
| 54 | WV |
| 55 | WI |
| 56 | WY |
| 72 | PR |
| 78 | VI |

### 6.15.4   Detailed state and substate level values

Note: cross-state CBSA, in records of type geo_level = M, are present on files of type *label_geography_XX.csv*. A particular cross-state CBSA will appear on multiple files.

| Scope | Format file |
|-------|-------------|
| US | label_geography_us.csv |
| METRO | label_geography_metro.csv |
| **States** | |
| AK | label_geography_ak.csv |
| AL | label_geography_al.csv |
| AR | label_geography_ar.csv |
| AZ | label_geography_az.csv |
| CA | label_geography_ca.csv |
| CO | label_geography_co.csv |
| CT | label_geography_ct.csv |
| DC | label_geography_dc.csv |
| DE | label_geography_de.csv |
| FL | label_geography_fl.csv |
| GA | label_geography_ga.csv |
| HI | label_geography_hi.csv |
| IA | label_geography_ia.csv |
| ID | label_geography_id.csv |
| IL | label_geography_il.csv |
| IN | label_geography_in.csv |
| KS | label_geography_ks.csv |
| KY | label_geography_ky.csv |
| LA | label_geography_la.csv |
| MA | label_geography_ma.csv |
| MD | label_geography_md.csv |
| ME | label_geography_me.csv |
| MI | label_geography_mi.csv |
| MN | label_geography_mn.csv |
| MO | label_geography_mo.csv |
| MS | label_geography_ms.csv |
| MT | label_geography_mt.csv |
| NC | label_geography_nc.csv |
| ND | label_geography_nd.csv |
| NE | label_geography_ne.csv |
| NH | label_geography_nh.csv |
| NJ | label_geography_nj.csv |
| NM | label_geography_nm.csv |
| NV | label_geography_nv.csv |
| NY | label_geography_ny.csv |
| OH | label_geography_oh.csv |

| Scope | Format file |
|-------|-------------|
| OK | label_geography_ok.csv |
| OR | label_geography_or.csv |
| PA | label_geography_pa.csv |
| RI | label_geography_ri.csv |
| SC | label_geography_sc.csv |
| SD | label_geography_sd.csv |
| TN | label_geography_tn.csv |
| TX | label_geography_tx.csv |
| UT | label_geography_ut.csv |
| VA | label_geography_va.csv |
| VT | label_geography_vt.csv |
| WA | label_geography_wa.csv |
| WI | label_geography_wi.csv |
| WV | label_geography_wv.csv |
| WY | label_geography_wy.csv |

## 6.16  Aggregation level

( label_agg_level.csv )

Measures within the J2J and QWI data products are tabulated on many different dimensions, including demographic characteristics, geography, industry, and other firm characteristics. For Origin-Destination (O-D) tables, characteristics of the origin and destination firm can be tabulated separately. Every tabulation level is assigned a unique aggregation index, represented by the agg_level variable. This index starts from 1, representing a national level grand total (all industries, workers, etc.), and progresses through different combinations of characteristics. There are gaps in the progression to leave space for aggregation levels that may be included in future data releases.

**agg_level** is currently reported only for J2J data products.

The following variables are included in the label_agg_level.csv file:

| Variable | Description |
|---|---|
| agg_level | index representing level of aggregation reported on a given record |
| worker_char | demographic (worker) characteristics reported on record |
| firm_char | firm characteristics reported on record. These will be the characteristics of the destination firm in O-D tabulations |
| firm_orig_char | characteristics of origin firm reported on record (O-D tabulations only) |
| j2j | Flag: Aggregation level available on J2J counts tables |
| j2jr | Flag: Aggregation level available on J2J rates tables |
| j2jod | Flag: Aggregation level available on J2J O-D tables |
| qwi | Flag: Aggregation level available on QWI |

The characteristics available on an aggregation level are repeated using a series of flags following the standard schema:

- geo_level - geographic level of table

- ind_level - industry level of table

- by_ variables - flags indicating other dimensions reported, including ownership, demographics, firm age and size.

A shortened representation of the file is provided below, the complete file is available in the link above.

| agg_level | worker_char | firm_char | firm_orig_char | j2j | j2jr | j2jod | qwi | geo_level |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | 1 | 1 | 1 | 0 | N |
| 2 | Sex | | | 1 | 1 | 1 | 0 | N |
| 3 | Age | | | 1 | 1 | 1 | 0 | N |
| 4 | Sex * Age | | | 1 | 1 | 1 | 0 | N |
| 5 | Race | | | 1 | 1 | 1 | 0 | N |
| 9 | Ethnicity | | | 1 | 1 | 1 | 0 | N |
| 13 | Race * Ethnicity | | | 1 | 1 | 1 | 0 | N |
| ... | | | | | | | | |
| 129 | | Firm Size | | 1 | 1 | 1 | 0 | N |
| 257 | | NAICS Sector | | 1 | 1 | 1 | 0 | N |
| 258 | Sex | NAICS Sector | | 1 | 1 | 1 | 0 | N |

| agg_level | worker_char | firm_char | firm_orig_char | j2j | j2jr | j2jod | qwi | geo_level |
|---|---|---|---|---|---|---|---|---|
| . . . | | | | | | | | |
| 1029 | Race | State | | 1 | 1 | 1 | 0 | S |
| 1033 | Ethnicity | State | | 1 | 1 | 1 | 0 | S |
| 1037 | Race * Ethnicity | State | | 1 | 1 | 1 | 0 | S |
| . . . | | | | | | | | |

# 7  Status flags

( label_flags.csv )

Each status flag in the tables above contains one of the following valid values. The values and their interpretation are listed in the table below.

---

**!**　**Important**

Note: Currently, the J2J tables only contain status flags *-1*, *1*, *5*. Status flags with values 10 or above only appear in online applications, not in CSV files.

---

| flag | label |
|------|-------|
| -2 | no data available in this category for this quarter |
| -1 | data not available to compute this estimate |
| 1 | OK |
| 5 | Value suppressed because it does not meet US Census Bureau publication standards. |
| 6 | Value calculated from other released measures - no significant distortion |
| 7 | Value calculated from other released measures - some of which have significantly distorted data |
| 9 | Data significantly distorted - fuzzed value released |
| 10 | Aggregate of cells - no significant distortion |
| 11 | Aggregate of cells not released because component cells do not meet U.S. Census Bureau publication standards |
| 12 | Aggregate of cells - some of which have significantly distorted data |

# 8 Metadata

( variables_version.csv )

## 8.1 Version Metadata for J2J Files (version.txt)

Each data release is accompanied by one or more files with metadata on geographic and temporal coverage, in a compact notation. These files follow the following naming convention:

```
version_[type].txt
```

where each component is described in more detail in lehd_csv_naming.pdf.

The contents contains the following elements:

| Component | Source | Description |
|---|---|---|
| product | [type] | Type as described in lehd_csv_naming.pdf |
| demo_fas | [demo]_[fas] | (optional - concatenated with product) used for QWI to distinguish separate tabulations from the legal [demo]_[fas] combinations as described in lehd_csv_naming.pdf |
| geo | [stusps] or METRO | Covered [geography] (uppercase state postal code including entire nation or the word METRO) |
| geonum | [geography] | Numeric geography code |
| start | yyyy:q | Start year and quarter |
| end | yyyy:q | End year and quarter |
| schema | Vx.y.z | Version of the schema |
| release | RyyyyQq | Release quarter (identifies when the data was created) |
| internal | various | Internal identifier used for provenance tracking |

For instance, the metadata for the R2017Q3 release of Missouri J2J tabulations (obtained from here) has the following content:

```
J2J MO 29 2000:2-2016:3 V4.2b-draft R2017Q3 j2jpu_mo_20171023_1412
```

Some J2J metadata may contain multiple lines, as necessary.

## 8.2 Additional Metadata for J2JOD Files (avail.csv)

(variables_avail.csv)

Because the origin-destination (J2JOD) data link two regions, we provide an auxiliary file with the time range that cells containing data for each geographic pairing may appear in a data release.

| variable | type | label |
|---|---|---|
| geo_level | Char(1) | Geographic level of destination region |
| geography | Char(8) | Geography code of destination region |
| geo_level_orig | Char(1) | Geographic level of origin region |
| geography_orig | Char(8) | Geography code of origin region |
| start_year | Num | First year regional pair may be observed |
| start_quarter | Num | First quarter regional pair may be observed |
| end_year | Num | Last year regional pair may be observed |
| end_quarter | Num | Last quarter regional pair may be observed |

The reference region will always be either the origin or the destination. National tabulations contain records where both origin and destination are geo_level=N; state tabulations contain records where geo_level in (N,S); metro tabulations contain records where geo_level in (N,S,B). Data may be suppressed for certain combinations of regions and quarters because the estimates do

not meet Census Bureau publication standards.

## 8.3   Metadata on Indicator Availability

(variables_lags.csv)

Each Indicator potentially requires leads and/or lags of data to be computed, and thus may not be available for certain time periods. The date range for J2J and J2JR can be found in version.txt; the date range for J2JOD can be found in avail.csv.

For each indicator, the following files contain the quarters of data required to be available relative to the overall date range described in the metadata for the release:

- lags_j2j.csv

- lags_j2japp.csv

The files are structured as follows:

| variable | type | label |
|---|---|---|
| Indicator Variable | Num | Name of the Indicator |
| Quarters_Required_Prior | Num | Number of quarters of data required to compute indicator relative to start quarter |
| Quarters_Required_Subsequent | Num | Number of quarters of data required to compute indicator relative to end quarter |

This revision: Thu Dec 21 14:47:59 EST 2017