

# LEHD Public Use Schema V4.7.0 - File and Directory Naming Convention

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( [Printable version](#) )



### *Important*

This specification is draft. Feedback is welcome. Please write us at [ces.qwi.feedback@census.gov](mailto:ces.qwi.feedback@census.gov).

# 1. Purpose

The public-use data from the Longitudinal Employer-Household Dynamics Program, including the Quarterly Workforce Indicators (QWI) and Job-to-Job Flows (J2J), are available for download with the following data schema. These data are available as Comma-Separated Value (CSV) files through the LEHD website's Data page at <https://lehd.ces.census.gov/data/> and through LED Extraction Tool at <https://ledextract.ces.census.gov/>.

This document describes the file and directory naming schema for LEHD-provided CSV files.

## 2. Schema for Data File Contents

The contents (schema) for LEHD data files are described in [lehd\\_public\\_use\\_schema.pdf](#). The contents (schema) for shapefiles are described in [lehd\\_shapefiles.pdf](#).

## 3. Extends

This version modifies a portion of the structure of the metadata. Many files compliant with LEHD or QWI Schema v4.2 or lower will also be compliant with this schema, but compatibility is not guaranteed.

## 4. Supersedes

This version supersedes V4.6.0, for files released as of R2020Q1.

## 5. Basic Filename Schema

All files are preceded by a file type definition, followed by additional information on the aggregation level of the file, or some other identifier.

```
[TYPE]_[DETAILS].[EXT]
```

( [naming\\_convention.csv](#) )

type	Used By	Description
[type]_[i d]	qwix	CSV files queried from the LED Extraction Tool at <a href="http://ledextract.ces.census.gov/">http://ledextract.ces.census.gov/</a> .

type	Used By	Description
[type]_[geohi]_[dataset]_[indicator]_[ownercat]_[sa]	qwi qwir qwiv qwivr j2j j2jr j2jod	Common convention for currently provided files.
lehd_shp_[geocat].zip	shapefiles	ZIP files containing data for shapefiles
version\[type].txt	metadata	Machine-readable text files with metadata on geographic and temporal coverage
j2jod_[geography]_avail.csv	metadata	Complex metadata (used only in J2JOD) - see below
pseoe\[institution state/all].csv	pseo	PSEO Earnings data broken by institution state or a single file with all institutions.
pseof\[institution state/all].csv	pseo	PSEO Flows data broken by institution state or a single file with all institutions.

## 5.1. QWIPU from the LED Extraction Tool

Files downloaded through the LED Extraction Tool at <https://ledextract.ces.census.gov/> follow the following naming convention:

```
[type]_[id].[EXT]
```

where [id] is the Request ID (a unique string of characters) generated every time Submit Request" is clicked. The ID references each query submission made to the database.

## 5.2. Metadata for QWI and J2J data files (version.txt)

Metadata accompanies the data files, identifying provenance, geographic and temporal coverage. These files follow the following naming convention:

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

where each name component is described in more detail [below](#).

## 5.3. Metadata for J2JOD files

Because the origin-destination (J2JOD) data link two regions, we provide an auxiliary file with the time range for which cells containing data for each geographic pairing may appear in a data release. The reference region will always be either the origin or the destination. These files follow the following naming convention:

```
j2jod_[geography]_avail.csv
```

where each name component is described in more detail [below](#).

# 6. Directory Paths

Downloadable data files are organized on the download server (at the time of this writing: <https://lehd.ces.census.gov/data/>) in directories organized as follows:

```
SERVER/data/[PRODUCT]/[RELEASE]/[GEOHI][ /[TYPE] ]/{files}
```

where [\[PRODUCT\]](#), [\[RELEASE\]](#), [\[GEOHI\]](#), and [\[TYPE\]](#) are each described below. [\[TYPE\]](#) is optional.

# 7. Description of Naming Components

## 7.1. Release

A **release** is defined by the calendar year quarter when data production occurs. It is thus generically constructed as

```
R[YEAR]Q[QUARTER]
```

where [\[YEAR\]](#) is the 4-digit year and [\[QUARTER\]](#) the single-digit calendar year quarter (1-4).

## 7.2. Types and Products

( [naming\\_type.csv](#) )

type	product	Description	Explanation	url
j2j	j2j	Job-to-Job Flows Counts (J2J)	Counts of hires and separations, to and from employment and non-employment, summed across all establishments	<a href="http://lehd.ces.census.gov/data/#j2j">http://lehd.ces.census.gov/data/#j2j</a>
j2jod	j2j	Job-to-Job Flows Origin-Destination	Origin and destination flows and earnings, tabulated by the destination establishment	<a href="http://lehd.ces.census.gov/data/#j2j">http://lehd.ces.census.gov/data/#j2j</a>
j2jr	j2j	Job-to-Job Flows Rates	Hiring and separation rates, to and from employment and nonemployment, summed across all establishments	<a href="http://lehd.ces.census.gov/data/#j2j">http://lehd.ces.census.gov/data/#j2j</a>
lodes	lodes	LEHD Origin-Destination Employment Statistics (LODES)	LEHD Origin-Destination Employment Statistics (LODES) used by OnTheMap. Version 7 and higher of LODES was enumerated by 2010 census blocks. Version 6 and lower of LODES were enumerated with 2000 census blocks.	<a href="http://lehd.ces.census.gov/data/#lodes">http://lehd.ces.census.gov/data/#lodes</a>
qwi	qwi	Quarterly Workforce Indicators Public Use Counts (QWIPU)	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 using detailed firm characteristics (geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity).	<a href="http://lehd.ces.census.gov/data/#qwi">http://lehd.ces.census.gov/data/#qwi</a>
qwir	qwi	Quarterly Workforce Indicators Public Use Rates	Rates for flow variables in the Quarterly Workforce Indicators (QWI)	tbd

type	product	Description	Explanation	url
qwirv	qwi	Quarterly Workforce Indicators Variability Measures for Rates	Variability measures for rates in the Quarterly Workforce Indicators (QWI)	tbd
qwiv	qwi	Quarterly Workforce Indicators Variability Measures	Variability measures for Quarterly Workforce Indicators (QWI)	tbd
lehd_shp	all	LEHD Shapefiles	Shapefiles are used to provide mapping functionality in QWI Explorer and Job-to-Job Explorer	<a href="#">lehd_shapefiles.html</a>
pseoe	pseo	Post-Secondary Employment Outcomes - Earnings	Counts of employed graduates by institution, with earnings quartiles	<a href="https://lehd.ces.census.gov/data/#pseo">https://lehd.ces.census.gov/data/#pseo</a>
pseof	pseo	Post-Secondary Employment Outcomes - Flows	Counts of employed graduates by institution, location of work and industry	<a href="https://lehd.ces.census.gov/data/#pseo">https://lehd.ces.census.gov/data/#pseo</a>

## 7.3. geohi

( [naming\\_geohi.csv](#) )

The geohi component in **filenames** is based on one of two possible code sets:

- the lower-case alphabetic FIPS or postal state code based on [FIPS PUB 5-2](#) (see also [label\\_stusps.csv](#) for upper-case variants).
- the numeric CBSA code corresponding to the metropolitan areas (see [label\\_geography\\_metro.csv](#))
- It is expanded to encompass additional codes denoting national coverage, or a collection of states.

For **directories**, files at the CBSA level are collected under a single **metro** directory.

type	Description
all	Collection of all available states
us	National data (50 states + DC)

type	Description
metro	Indicates collection of CBSA-level files ( <b>directory names only</b> )
[st]	Any legal 2-character lower-case state postal code
[NNNNN]	Any valid CBSA-derived code listed in <a href="#">label_geography_metro.csv</a>

## 7.4. demo

( [naming\\_demo.csv](#) )

type	Description
d	No demographic detail
rh	Race by Ethnicity tabulations
sa	Sex by Age tabulations
se	Sex by Education tabulations
sarhe	Collection of sa-rh-se tabulations

## 7.5. fas

( [naming\\_fas.csv](#) )

type	Description
f	No firm size or age detail
fa	Tabulations by firm age
fs	Tabulations by firm size



## 7.6. geocat

( [naming\\_geocat.csv](#) )

type	Description
gb	Metropolitan (complete)
gc	Counties
gm	Metropolitan/Micropolitan (state parts)
gn	National (50 States + DC)
gs	States
gw	Workforce Investment Areas

## 7.7. indcat

( [naming\\_indcat.csv](#) )

type	Description
n	all industries
ns	NAICS sectors
n3	NAICS subsectors
n4	NAICS industry groups

## 7.8. owncat

( [naming\\_owncat.csv](#) )

type	Description
of	Federal government (QWI Code A01)
op	All Private (QWI Code A05)
oslp	State, local, and private ownership categories (QWI Code A00)

## 7.9. sa

( [naming\\_sa.csv](#) )

type	Description
s	Seasonally adjusted
u	Not seasonally adjusted

## 7.10. ext

( [naming\\_ext.csv](#) )

type	Description
csv	Comma-Separated file
pdf	PDF file (printable)
xls	Excel file (only select output)
xlsx	Excel file (not available for larger files)

## 8. Changes

For a description of how schema files are versioned, see [main directory](#).

### 8.1. This version (revisions)

- 2020-06-26: Initial release

### 8.2. Changes from 4.6.0

- Merge PSEO schema files into official release version
- Minor formatting changes

### 8.3. Changes from 4.5.0-draft

- Additional status flags on PSEO Earnings
- Additional measures on PSEO Flows to report unobserved/marginally employed
- Earnings reported at 2-digit CIPCODE level
- Institution code changed to 8-digits
- Updated to 2020 CIPCODE



.Important

Some of the data products noted above do not exist yet.

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