

# LEHD Public Use Shapefile Data

## Contents

|          |  |          |
|----------|--|----------|
| <b>1</b> | <b>Scope</b>                               | <b>1</b> |
| <b>2</b> | <b>Sources</b>                             | <b>1</b> |
| <b>3</b> | <b>Transformations</b>                     | <b>1</b> |
| <b>4</b> | <b>Outputs</b>                             | <b>1</b> |
| 4.1      | FORMAT . . . . .                           | 2        |
| 4.2      | Values . . . . .                           | 2        |
| 4.2.1    | STUSPS . . . . .                           | 2        |
| 4.2.2    | GEOGRAPHY . . . . .                        | 2        |
| 4.2.3    | NAME . . . . .                             | 3        |
| 4.3      | Common files . . . . .                     | 3        |
| 4.3.1    | State . . . . .                            | 3        |
| 4.4      | QWI Geographies . . . . .                  | 3        |
| 4.4.1    | County . . . . .                           | 3        |
| 4.4.2    | CBSA - within State . . . . .              | 3        |
| 4.4.3    | Workforce Investment Board Areas . . . . . | 3        |
| 4.5      | Job-to-Job Flow Geographies . . . . .      | 3        |
| 4.5.1    | CBSA - National . . . . .                  | 3        |
| <b>5</b> | <b>Versioning</b>                          | <b>4</b> |
| <b>6</b> | <b>Changes</b>                             | <b>4</b> |

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( [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](mailto:lars.vilhuber@cornell.edu).

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## 1 Scope

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 according to [structural](#) and [file naming](#) schema. The data themselves are available as Comma-Separated Value (CSV) files through the LEHD website's Data page at <http://lehd.ces.census.gov/data/> as well as through the [LED Extraction Tool](#).

Shapefiles are used to provide mapping functionality in [QWI Explorer](#) and Job-to-Job Explorer (coming soon). They are created by transforming input shapefiles sourced from [TIGER/Line](#).

## 2 Sources

Files are derived from [TIGER/Line 2015 shapefiles](#):

- [tl\\_2015\\_us\\_state](#)
- [tl\\_2015\\_us\\_county](#)
- [tl\\_2015\\_us\\_cbsa](#)
- [tl\\_2015\\_\(ST\)\\_place](#) (for creation of WIA/WIB shapefile)
- [tl\\_2015\\_\(ST\)\\_cousub](#) (for creation of WIA/WIB shapefile)

## 3 Transformations

The following major transformations are applied to the input files:

- All geographies are reprojected to [WGS-1984 Geographic Coordinate System](#)
- Shoreline water has been clipped out to provide a more recognizable depiction of the coastlines.
- Each layer is given internal point coordinates (stored as double) based on the WGS-1984 projection (decimal degrees).
- Each layer is run through a "simplify polygon" procedure to remove unnecessary complexity from the features.
- Features from Guam, American Samoa, and the Northern Mariana Islands have been removed because they are not used in current LEHD tabulations.
- Each shapefile's attribute table has been updated to conform to the standard LEHD output format, defined in [Format](#) section

## 4 Outputs

Output shapefiles – grouped by paired products – are listed below. Each shapefile includes specific notes on its preparation.

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## 4.1 FORMAT

( [variables\\_shp.csv](#) )

Files are distributed as **ESRI Shapefiles**, packaged as **ZIP** files. The SHP component of these archives is described here. Other components (dbf, prj, shx) files are not documented here, we refer users to <http://www.digitalpreservation.gov/formats/fdd/fdd000280.shtml> .

| column    | label                        | description   | type   |
|-----------|------------------------------|---|--------|
| STUSPS    | State USPS code              | FIPS State Postal Code as per <a href="https://www.census.gov/geo/reference/codes/cou.html">https://www.census.gov/geo/reference/codes/cou.html</a>   | string |
| GEOGRAPHY | Nationally unique identifier | Derived from Nationally Unique Federal Information Processing Series (FIPS) Code as per <a href="https://www.census.gov/geo/reference/ansi.html">https://www.census.gov/geo/reference/ansi.html</a> (see notes) | string |
| NAME      | Feature Name                 | Full Census Name of Geography Feature   | string |
| LABEL     | Feature Label                | Shorter Census Name of Geography Feature for Thematic Mapping   | string |
| INTPTLAT  | Internal Point Latitude      | Internal Point Latitude in WGS-1984 Decimal Degrees as per <a href="http://spatialreference.org/ref/epsg/wgs-84/">http://spatialreference.org/ref/epsg/wgs-84/</a>  | double |
| INTPTLON  | Internal Point Longitude     | Internal Point Longitude in WGS-1984 Decimal Degrees as per <a href="http://spatialreference.org/ref/epsg/wgs-84/">http://spatialreference.org/ref/epsg/wgs-84/</a>   | double |

## 4.2 Values

### 4.2.1 STUSPS

( [label\\_stusps.csv](#) )

FIPS State Postal Code as per <https://www.census.gov/geo/reference/codes/cou.html>

### 4.2.2 GEOGRAPHY

( [label\\_geography.csv](#) ) The valid codes correspond to those listed on [label\\_geography.csv](#).

### 4.2.3 NAME

This is a string that corresponds in general to the *label* field on [label\\_geography.csv](#). Minor deviations for ease of exposition are possible.

## 4.3 Common files

### 4.3.1 State

( [lehd\\_state.zip](#) )

No transformations occur to this layer other than those listed above.

## 4.4 QWI Geographies

### 4.4.1 County

( [lehd\\_county.zip](#) )

- STUSPS is appended to the NAME field so that county names are nationally unique. Example: "Cook, IL"

### 4.4.2 CBSA - within State

( [lehd\\_stcbsa.zip](#) )

- All features are split into state-specific CBSA features by intersecting each feature with the state shapefile features.
- The STUSPS field is added during the intersect with the state shapefile.
- STFIPS (i.e. FIPS State Code as per [https://www.census.gov/geo/reference/ansi\\_statetables.html](https://www.census.gov/geo/reference/ansi_statetables.html)) is prepended to the CBSA code (<https://www.census.gov/population/metro/data/def.html>) to create the GEOGRAPHY field to distinguish state-parts of the same CBSA (i.e. make them nationally unique).
- The text "([STUSPS] part)" is appended to the NAME field only for those CBSA features that are split by state lines.

### 4.4.3 Workforce Investment Board Areas

( [lehd\\_wib.zip](#) )

The WIA/WIB shapefiles are built from the Place, County Subdivision, and County shapefiles from TIGER/Line based on definitions provided by the LED state partners.

## 4.5 Job-to-Job Flow Geographies

### 4.5.1 CBSA - National

( [lehd\\_cbsa.zip](#) )

- The state remainder areas are added to the shapefile as new features. They are assigned unique codes ([STUSPS]+999) and names ("Not in metro/micro area, [STUSPS]").
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## 5 Versioning

Versioning rules follow [Semantic Versioning V2.0.0](#), which states that

Given a version number MAJOR.MINOR.PATCH, increment the:

- MAJOR version when you make incompatible API changes,
- MINOR version when you add functionality in a backwards-compatible manner, and
- PATCH version when you make backwards-compatible bug fixes.

## 6 Changes

This revision: Thu Apr 14 13:12:22 EDT 2016