

# Impacts and Recovery Using the Longitudinal Employer-Household Dynamics Data Tools

Oregon State Data Center  
Annual Meeting  
September 30, 2020

Presented by:  
Joyce Hahn



# Agenda

- LEHD Introduction
- Accessing the Longitudinal Employer-Household Dynamics Program's Data Tools
- QWI - QWI Explorer
- LODES - OnTheMap
- J2J Data Flows – J2J Explorer
- OnTheMap for Emergency Management
- PSEO - PSEO Explorer
- VEO - VEO Explorer

The screenshot shows the U.S. Census Bureau website homepage. At the top, there is a navigation bar with the 'United States Census Bureau' logo, a search bar, and links for 'BROWSE BY TOPIC', 'EXPLORE DATA', 'LIBRARY', 'SURVEYS/ PROGRAMS', 'INFORMATION FOR...', 'FIND A CODE', and 'ABOUT US'. The main content area features a large banner for 'Counties in South and West Lead Nation in Population Growth' with a 'Read More' button. To the right, there is a 'POPULATION CLOCK' showing the U.S. population at 328,837,726 and the world population at 7,570,189,090. Below this is a section for 'U.S. CENSUS BUREAU ECONOMIC INDICATORS' with a table of indicators:

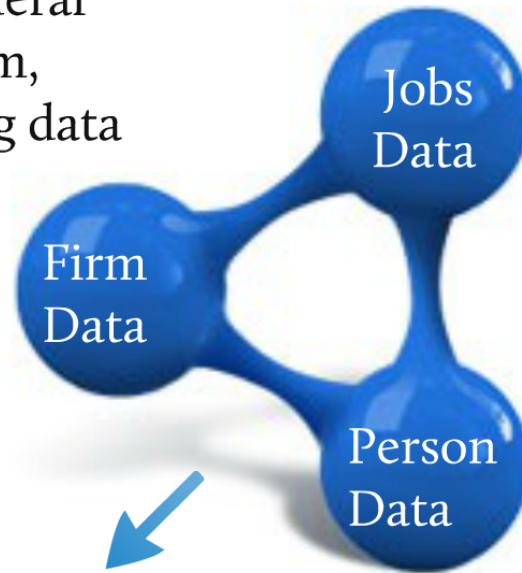
Indicator	Value	Change
Advance International Trade Goods	\$71.4 B	↓ 0.7%
Advance Retail Inventories	\$107.3 B	↓ 0.8%
Advance Wholesale Inventories	\$100.3 B	↓ 0.8%
Manufacturers' Goods	\$100.3 B	↑ 1.8%

Below the economic indicators, there are two call-to-action boxes: 'Help for Survey Participants' and 'Access Local Data'. The 'Latest News' section features several press releases and stories, including 'New Earnings and Employment Data for College Graduates', '2017 Census of Governments Data & Individual State Descriptions Report', 'U.S. Census Bureau Releases 2018 Voting and Registration Data', 'America Counts: Stories Behind the Numbers', 'Moves to and From the South and West Dominate Recent Migration Flows', 'The Impact of the Tech Boom on Housing', and 'Behind the 2018 U.S. Midterm Election Turnout'.

<https://www.census.gov/>

# What are LEHD and LED?

An innovative federal statistical program, collecting existing data and ...



New linked national jobs data for the U.S.

## The LEHD Program at Census

..linking it together to provide new information sources at low cost

# Longitudinal Employer-Household Dynamics (LEHD)

## Where Data is Published:

Data Product	Explore the data, answer questions, or get visualizations	Bulk data for use in analysis process/software	Live queries for building web applications
QWI	<a href="#">QWI Explorer</a>	<a href="#">LED Extraction Tool</a> and <a href="#">Raw data download</a>	<a href="#">Census Bureau API</a>
LODES	<a href="#">OnTheMap</a> <a href="#">OnTheMap for Emergency Management</a>	<a href="#">Raw data download</a>	Future development
J2J	<a href="#">J2J Explorer</a>	<a href="#">Raw data download</a>	Future Development
PSEO	<a href="#">PSEO Explorer</a>	<a href="#">Raw data download</a>	Future Development
VEO	<a href="#">VEO Explorer</a>	<a href="#">Raw data download</a>	Future Development

# Baby Boomers in Healthcare and Retail Trade

## Are You A Baby Boomer Looking For Work? Where To Find The Best Opportunities



**Sheila Callaham** Contributor  
Diversity & Inclusion  
*I write about combatting ageism in the workplace.*



Two industries show the most promise for older people looking for work. The BLS report containing data from 1994 to 2016 indicates an increase in workers aged 65 and 69 in healthcare (up 18%) and retail trade (up 14%). Carol Hymowitz, a recognized expert on longevity and diversity in the workplace, writes in her article, “How Health Care Employers Are Welcoming Older Workers,”

the growing health care industry has taken a progressive approach to hiring and retaining older workers because it's challenged by shortages of employees at every rank. To keep talent and attract new hires, hospitals and outpatient clinics are offering a variety of flexible work arrangements, including part-time schedules, telecommuting and job sharing. Others are rehiring retirees as contract workers.

<https://www.forbes.com/sites/sheilacallaham/2019/03/21/are-you-a-baby-boomer-looking-for-work-where-to-find-the-best-opportunities/#1629432360bd>

# <https://qwiexplorer.ces.census.gov/>

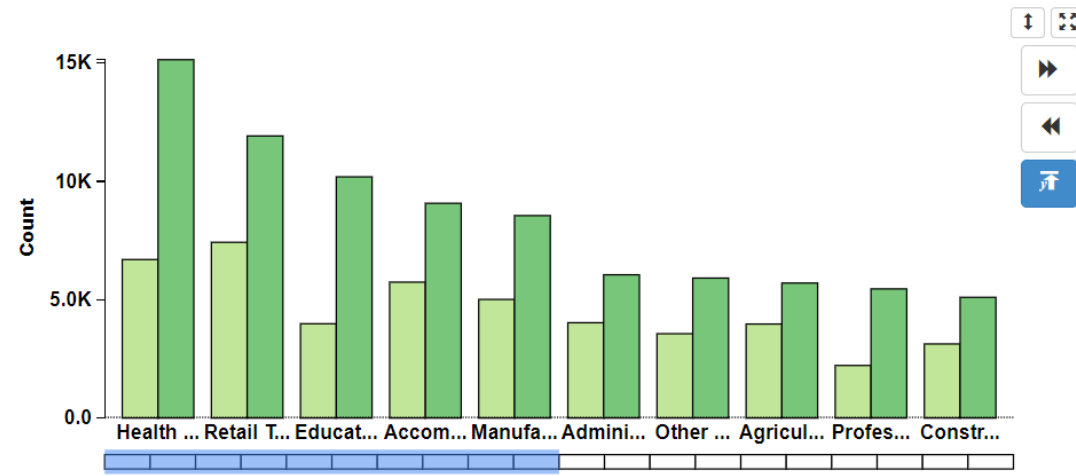
**Geography Level** ⓘ  
 Oregon ▼

**Indicator** ⓘ  
 Emp - Beginning of Quarter Employment: Count ▼

[Get Data](#)
[Share](#)
[Get Report](#)

**Filters/Aggregations** 🗑️ ⓘ

- Time: Group
- Geography: [None](#)
- Industries: [X-Axis](#)
- Firm Ownership: [All Ownership](#)
- Firm Age/Size: [None](#)
- Worker Age: [65-99](#)



↑ ↔️  
▶️  
◀️  
🔄

📈 📊 🌐  
 Line Bar Map

**X-Axis** ⓘ  
 NAICS Sectors ▼

[20 NAICS Sectors Selected](#)  
 Normalize on X-Axis ⓘ

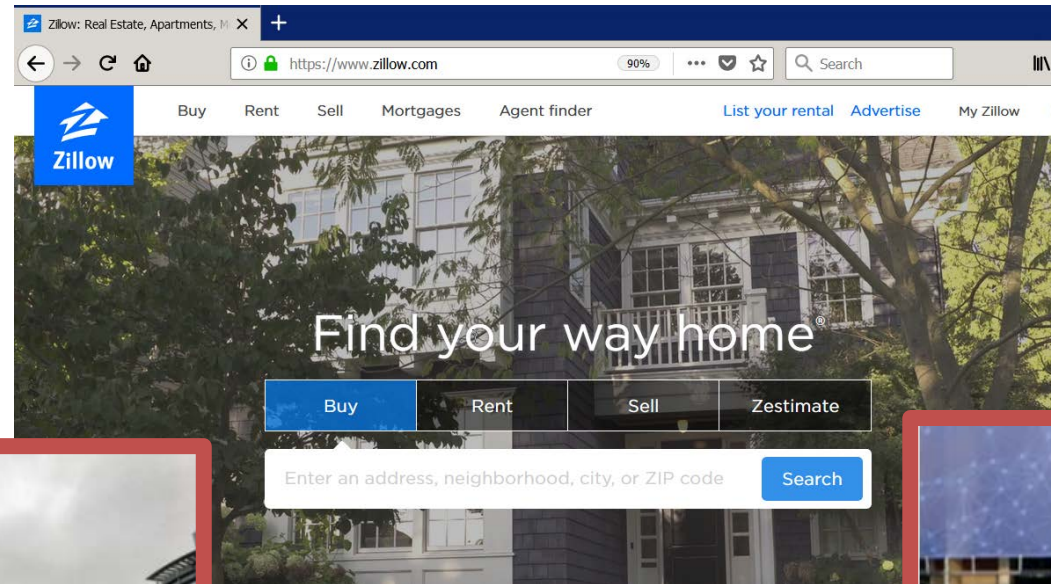
**Group** ⓘ  
 Yearly Averages ▼

[Two Years Selected](#)  
 Normalize on Group ⓘ

↑ ↔️  
⬆️

	2006	2016
Health Care and Social Assistance	6,694	15,133
Retail Trade	7,422	11,912

# How Zillow Is Connecting the Dots with LEHD

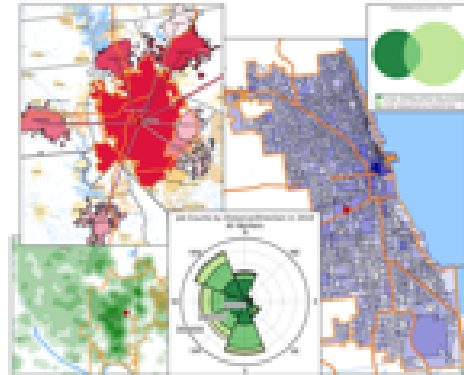


# OnTheMap and LODES

## [OnTheMap.CES.Census.Gov](http://OnTheMap.CES.Census.Gov)

### OnTheMap

Recognized by United Nations as a major U.S. statistical innovation



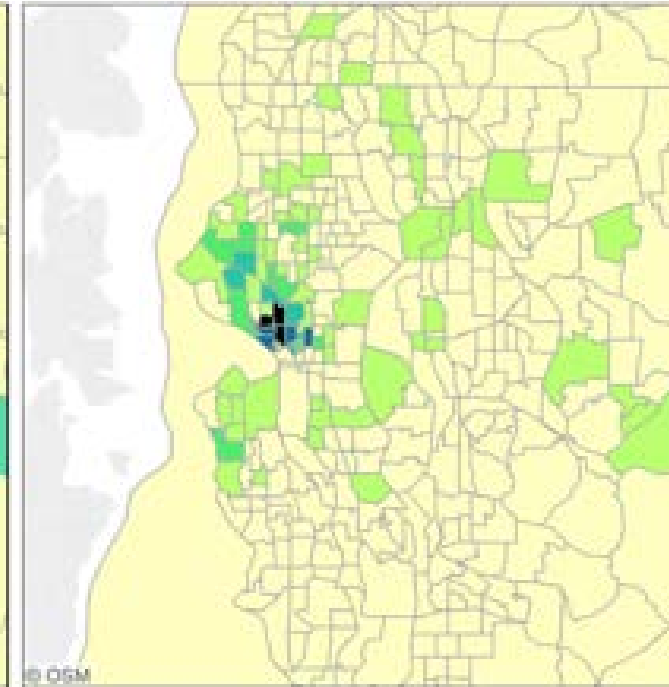
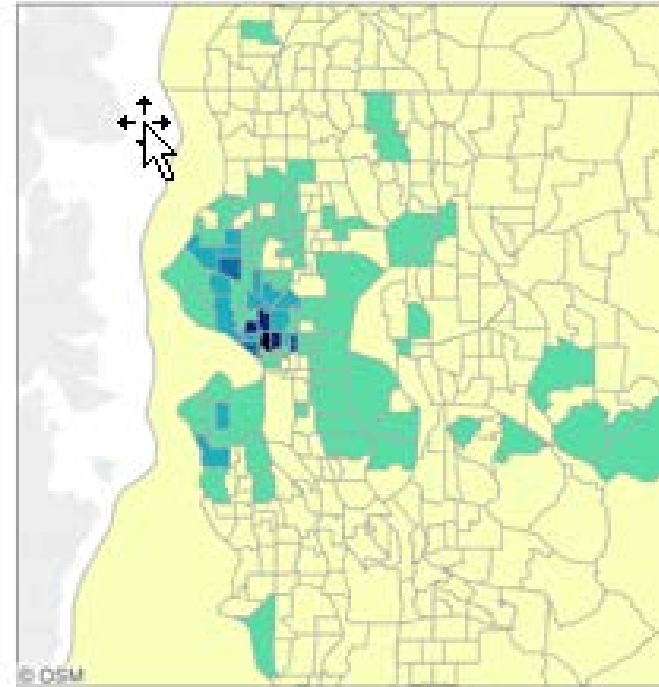
- ✓ Where do workers live?
- ✓ Where do residents work?
- ✓ What are the commuter flows of a particular area?
- ✓ Analyze/report by worker demographics: age, earnings, race, ethnicity, educational attainment, and sex
- ✓ Analyze/report by firm characteristics: NAICS Sector, firm age, and firm size

- ✓ 2002-2015 annual data
- ✓ 50 states available (plus DC)
- ✓ User-selected areas
- ✓ Based on Census Blocks
- ✓ Disclosure protection
- ✓ Flexible Inputs/Outputs

South Lake Union and nearby areas have both the greatest density and the largest growth in residents who work in South Lake Union.

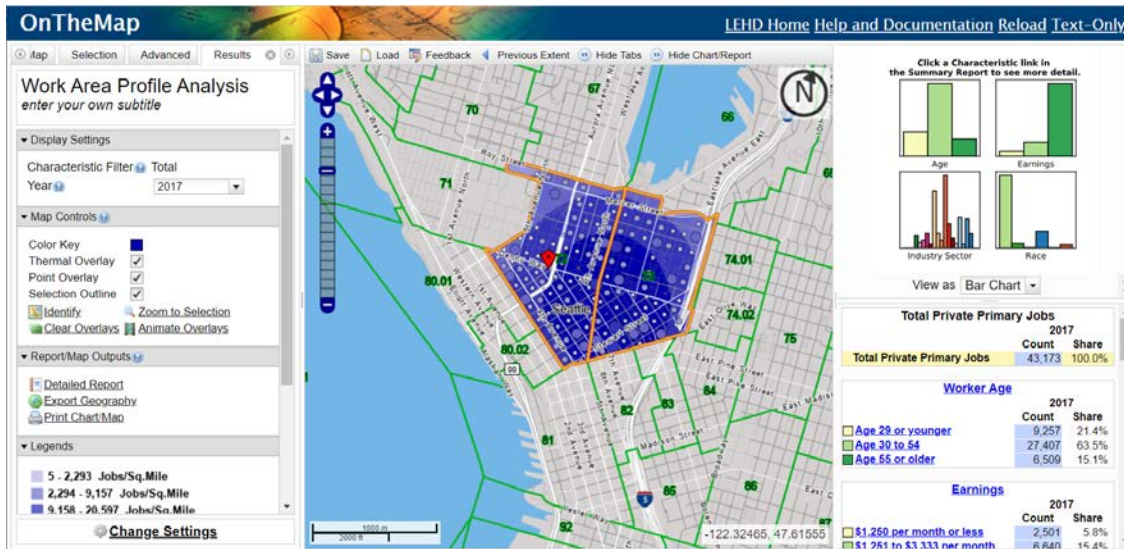
Distribution of SLU workers across census tract of residence, 2015

Average annual change in number of SLU workers by residence census tract, 2011-2015





# Amazon Effect



## Is the 'Amazon effect' on rising rents in North Seattle real?

Originally published April 1, 2018 at 8:00 am | Updated April 4, 2018 at 2:50 pm



Cranes tower above Seattle's University District neighborhood as a building boom continues there. (Elaine Thompson / The Associated Press)

Rents in Seattle north of the Ship Canal have breached a costly threshold for a couple of reasons, including the Amazon boom.

By Gene Balk / FYI Guy

Seattle Times staff columnist

### Share story

- Share
- Email
- Tweet

The days when you could save a few bucks by renting north of the Ship Canal are rapidly drawing to a close, according to a new report from Seattle-based Zillow.

Is it another example of the "Amazon effect" that's driving up rents in some city neighborhoods?

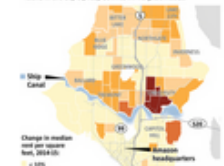
In the stretch from Ballard to the University District, rents shot up sharply between 2014 and 2015, according to data from Zillow, a national real-estate company. Nearly every census tract in this area saw its median price per square foot spike by double digits in that one-year period, increases ranging from 11 to 24 percent.

To be sure, there were similar increases in the far north and south ends of the city, such as Lake City and Rainier Valley. These, however, are some of the least expensive sections of Seattle. So as folks get priced out of the more central neighborhoods, demand here is growing. Even with the jump in rents, these areas are still significantly cheaper.

But the neighborhoods along the

### Rents soaring north of Ship Canal

From Ballard to the University District, median rents per square foot posted double-digit gains, per year, according to a Zillow analysis. The gray's rents are far outpacing levels found in the city's pricier downtown neighborhoods.



# Facebook Headquarters - Menlo Park



Zillow Research

Buying/Selling   Renting   Policy/Politics   Visuals   Latest   Data   Markets

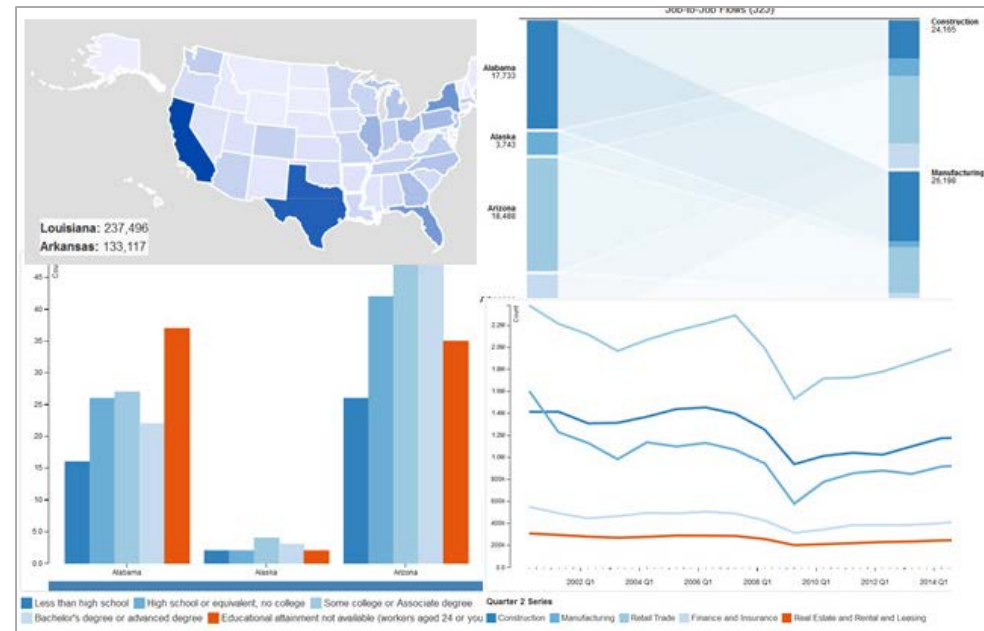
**Post-IPO, Home Values Grew Faster in Areas Home to Lots of Facebook Employees**

By [Jeff Tucker](#) on Feb. 4, 2019

- Every 10 Facebook employees living in a given census tract at the time of Facebook's IPO in May 2012 were associated with an additional 1.6 percentage points of home value increase over that year.
- Between March 2012 and March 2013, home values around likely Facebook employees climbed 21 percent, compared to 17 percent in all other Bay Area census tracts.
- This faster growth translated into an extra \$29,800 in appreciation for the typical home in these Facebook-employee-heavy areas compared to homes in the rest of the Bay Area.

# J2J Explorer

- ✓ 40 Measures of Worker Reallocation
- ✓ Six Visualization Modules with a flexible dashboard interface
- ✓ Export reports to Excel or CSV
- ✓ Trace worker movements through industries, geographic labor markets, and to/from employment
- ✓ Analyze/report by origin and destination geographies: national and state-level tabulations



- ✓ Analyze/report by origin and destination firm characteristics: NAICS Sector, firm age, and firm size
- ✓ Analyze/report by worker demographics: age, earnings, race, ethnicity, educational attainment, and sex
- ✓ Data updated every quarter

# California Exodus



### J2J: Regional Migration and Housing Affordability




# Start with the Guided Entry


Job-to-Job Flows Explorer (Beta) [LEHD Home](#) [Help](#)


## Guided Entry

- 1. Start Here**

Frame your question by selecting from the three dropdowns below; then click one of the blue links on the right to go to your customized results.

 Hires to

 California

 Information
- 2. Then Choose an Analysis**

**Analysis of Job-to-Job Flows**

From (Origin Job)	To (Destination Job)
<a href="#">Which States?</a>	<input checked="" type="checkbox"/> California
<a href="#">Which Industries?</a>	<input checked="" type="checkbox"/> Information

**Analysis of Hires Over Time**

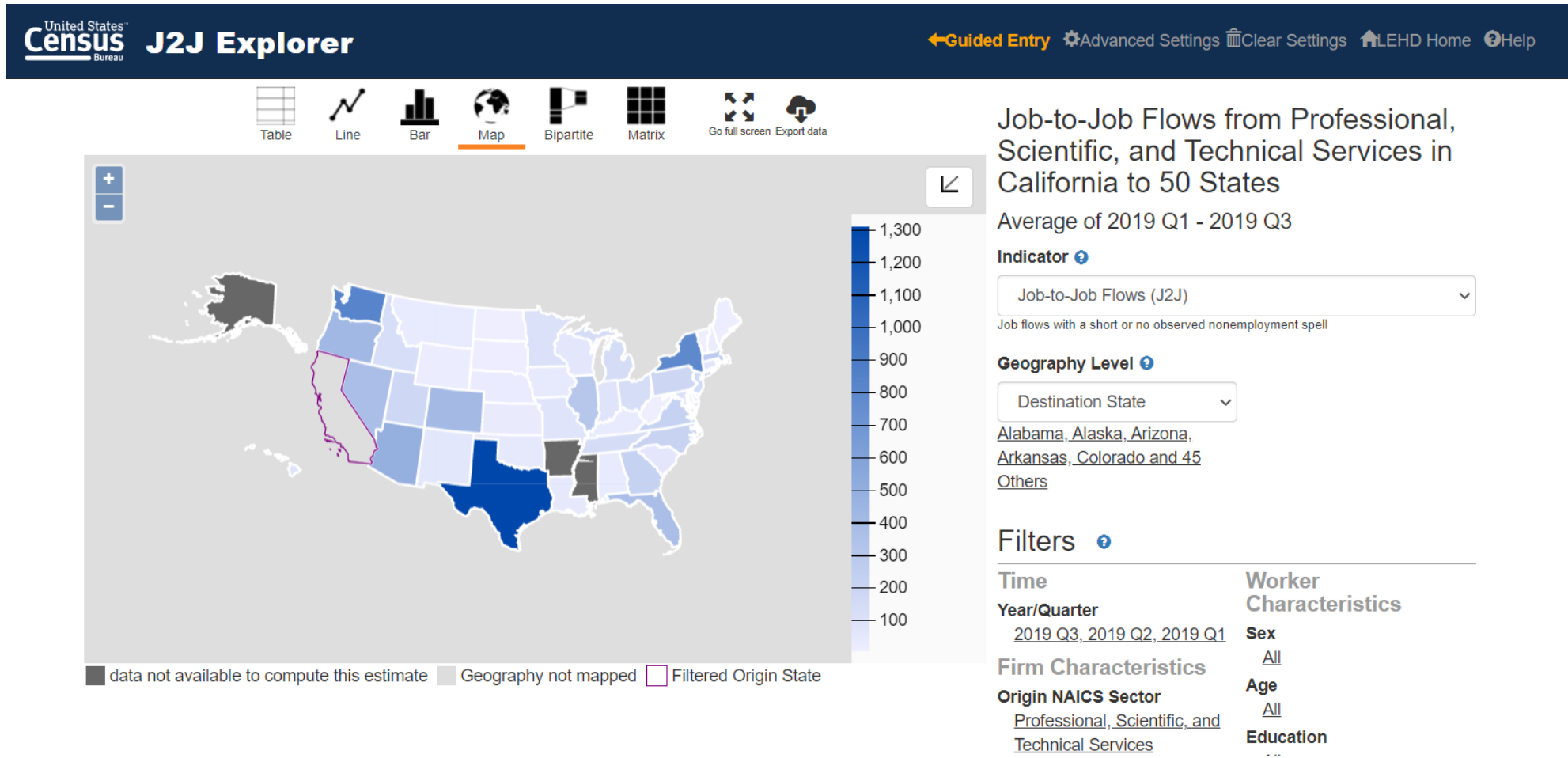
[Are hires to jobs in California Information coming from nonemployment or another job?](#)

**Not sure? Try one of these recommended options:**

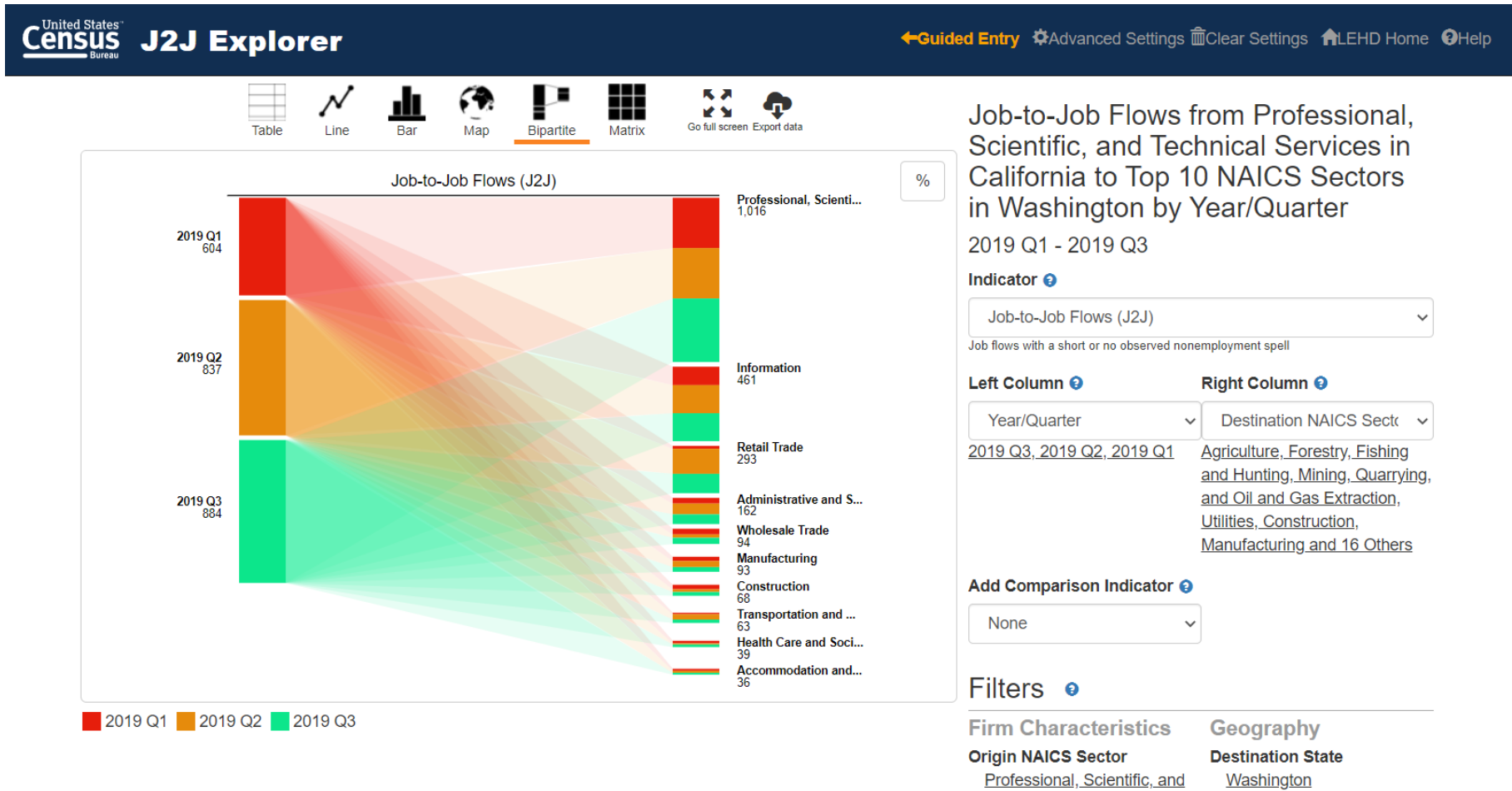
- [Which age groups are driving worker reallocation out of New England states?](#)
- [Are workers without a college degree in North Dakota more likely to be hired from another job or from persistent nonemployment?](#)
- [What states and firm ages are workers in California start-ups hired from?](#)
- [Which industries have the highest connectivity in terms of national job flows?](#)

Privacy Policy | 2010 Census | Data Tools | Information Quality | Product Catalog | Contact Us | Home  
Source: U.S. Census Bureau, Center for Economic Studies, LEHD | e-mail: CES.J2J.Feedback@census.gov

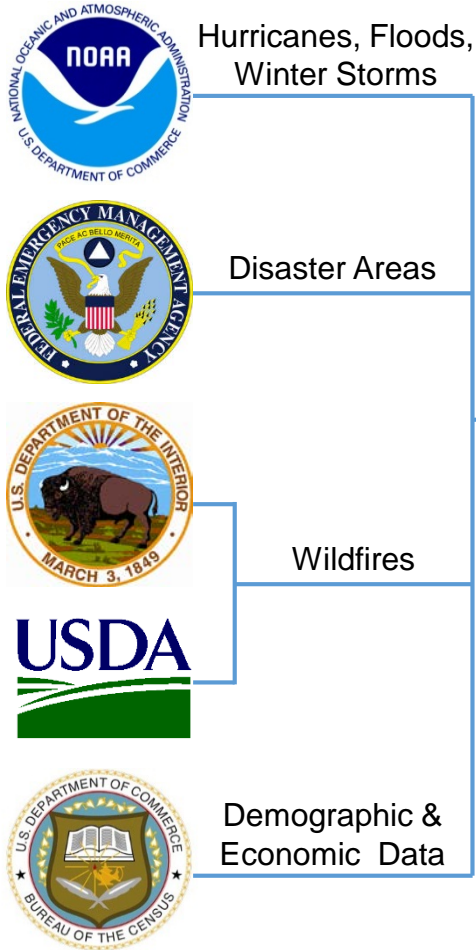
# J2J Explorer



# Bipartite



# OnTheMap for Emergency Management



OnTheMap for Emergency Management

LEHD Home OnTheMap Help and Documentation

**Disaster Declaration: DR-4166** Time Wed, 11 Jun 2014 16:00:02 GMT

Detail by: Characteristics  
Topic: 2010 Decennial Cou...

Analysis Area: Event Area

Population by Age

Universe: Total Population  
Source: 2010 Census

Characteristic	Count	Share
Total	1,755,475	100.00%
Under 18 years	416,870	23.75%
18 to 19 years	49,751	2.83%
20 to 24 years	116,069	6.61%
25 to 34 years	220,375	12.55%
35 to 49 years	353,573	20.14%
50 to 64 years	355,344	20.24%
65 years and over	243,493	13.87%

Population by Race  
Population by Ethnicity  
Population by Sex  
Population by Housing  
Housing Units

Universe: Housing Units  
Source: 2010 Census

Characteristic	Count	Share
Total	843,527	100.00%
Total of Universe: Vacant housing units	161,607	19.16%

Map showing disaster area in South Carolina and Georgia. Legend: Total Population - Total per sq. mi. (Tracts): 0 - 6, 7 - 44, 45 - 297, 298 - 1,992, 1,993 - 13,319. Event Area. Basemap: Terrain.

Bar chart showing population distribution by age group.

Privacy Policy | 2010 Census | Data Tools | Information Quality | Product Catalog | Contact Us | Home  
Source: U.S. Census Bureau, Center for Economic Studies, LEHD | e-mail: CES.OnTheMap.Feedback@census.gov

## New Public Data Service for Emergency Preparedness & Response

- Comprehensive Reports
- Real-time Data Updates
- Easy-to-use & Interoperable
- Historical Event Archive
- Flexible Analyses & Visualizations





<https://onthemap.ces.census.gov/em/>

• Before

• After

**OnTheMap for Emergency Management** LEHD Home OnTheMap Help and Documentation

**Search:** Filter U.S. Census Bureau data for disasters, natural hazards, and weather events. Click for more information on Pacific Storms.

**Events as of 06/04/2020**

- Hurricanes**
  - Tropical Storm Cristobal  
Arkansas, Louisiana, Mississippi and 4 other States  
Affected Population: 14,341,560
- Wildfires**
  - Sawtooth Fire  
Zip 85118  
Affected Population: 477
  - Ocotillo Fire  
Zip 85331  
Affected Population: 221
  - Pony Express Fire  
Zip 89403  
Affected Population: 21
  - Narrow Ditch Fire  
Zip 33196  
Affected Population: 14
  - East Desert Fire  
Zip 85331  
Affected Population: 3
  - Decourcy Mountain Fire  
No data  
Affected Population: 0
  - Sloan 2 Fire

**Legend & Map Controls**

**Event Types**

- Tropical Storms
  - Current Wind Radii
  - Wind History (Cumulative Swath)
  - Forecast Area (Cone of Uncertainty)
- Wildfires
  - Perimeter
- Floods
  - Likely
  - Occurring or Imminent
- Winter Weather
  - Forecasted Snowfall
  - Forecasted Freezing Rain
- Disaster Declaration Areas
  - Emergency or Disaster Declaration

**Basemap:** Terrain

**Zoom To:** AK HI US

Privacy Policy | 2010 Census | Data Tools | Information Quality | Product Catalog | Contact Us | Home  
Source: U.S.Census Bureau, Center for Economic Studies, LEHD | e-mail: CES.OnTheMap.Feedback@census.gov

**United States Census Bureau** OnTheMap for Emergency Management LEHD Home OnTheMap Help and Documentation

**Search:** Filter Update (August 5, 2020): Click here to read about application changes related to the COVID-19 Pandemic

**Events as of 09/10/2020**

- Hurricanes**
  - Tropical Storm Paulette  
No data  
Affected Population: 0
  - Tropical Storm Rene  
No data  
Affected Population: 0
  - Remnants of Julio  
No data  
Affected Population: 0
- Wildfires**
  - Czu Lightning Fire  
Santa Cruz County, CA, San Mateo County, CA  
Affected Population: 5,459
  - Lnu Lightning Complex Fire  
Napa County, CA, Yolo County, CA, Sonoma County, CA and 3 other Counties  
Affected Population: 4,702
  - Claremont-Bear Fire  
Plumas County, CA, Butte County, CA  
Affected Population: 2,067
  - Beachie Creek Fire  
Marion County, OR, Clackamas County, OR, Linn County, OR  
Affected Population: 1,933

**Legend & Map Controls**

**Event Types**

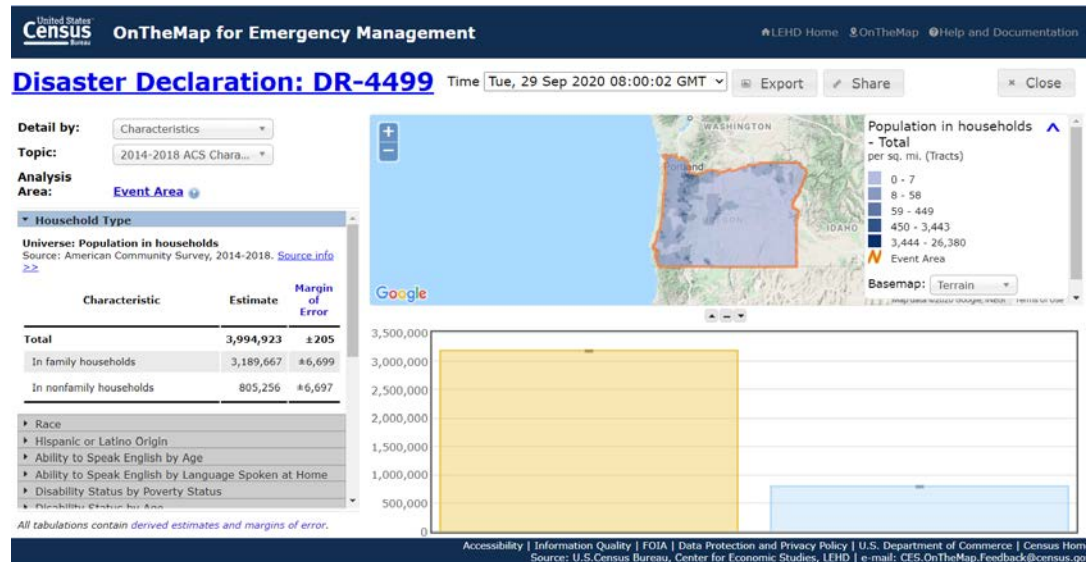
- Tropical Storms
  - Current Wind Radii
  - Wind History (Cumulative Swath)
  - Forecast Area (Cone of Uncertainty)
- Wildfires
  - Perimeter
- Floods
  - Likely
  - Occurring or Imminent
- Winter Weather
  - Forecasted Snowfall
  - Forecasted Freezing Rain
- Disaster Declaration Areas
  - Emergency or Disaster Declaration
- COVID-19 Pandemic
  - Emergency or Disaster Declaration

**Basemap:** Terrain

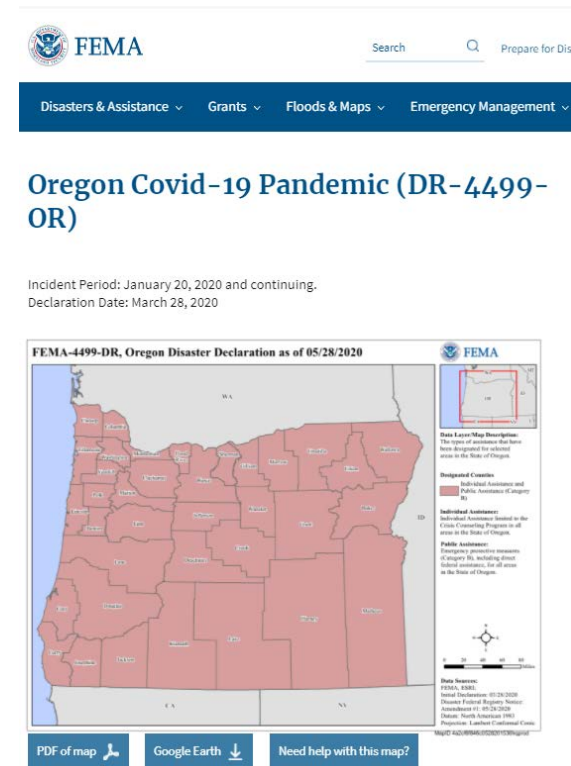
**Zoom To:** AK HI US

# OnTheMap for Emergency Management

## DR-4499



## FEMA





# Post Secondary Employment Outcomes - PSEO

A joint pilot project between university systems, state higher education systems, and the Census Bureau, the Post-Secondary Employment Outcomes (PSEO) are experimental tabulations providing national earnings statistics for graduates of post-secondary institutions.

- PSEO Provides
  - 25th, 50th, and 75th percentiles of annual earnings for college and university graduates.
  - Employment by industry and region of the country.
  - By degree level, degree major, and post-secondary institution.
  - One year, five years, and 10 years after graduation.

- Current PSEO partners:
  - The University of Texas system (2017)
  - Colorado Department of Higher Education (2017)
  - University of Michigan, Ann Arbor (2018)
  - University of Wisconsin, Madison (2018)
- Future Partners
  - Ohio
  - New York

# LED in Action



## Professional services, health care top industries for U-M graduates

ANN ARBOR—Ten years after earning a bachelor’s degree from the University of Michigan, more graduates work in professional, scientific and technical service fields than any other classification.

The data were released today through a collaboration between U-M, the Institute for Research on Innovation and Science (IRIS), and the U.S. Census Bureau. IRIS partners with the U.S. Census Bureau to link data from participating universities to the Census Bureau’s Longitudinal Employer-Household Dynamics dataset to produce detailed employment and geographical information on alumni. The data covered from 2001 to 2015.

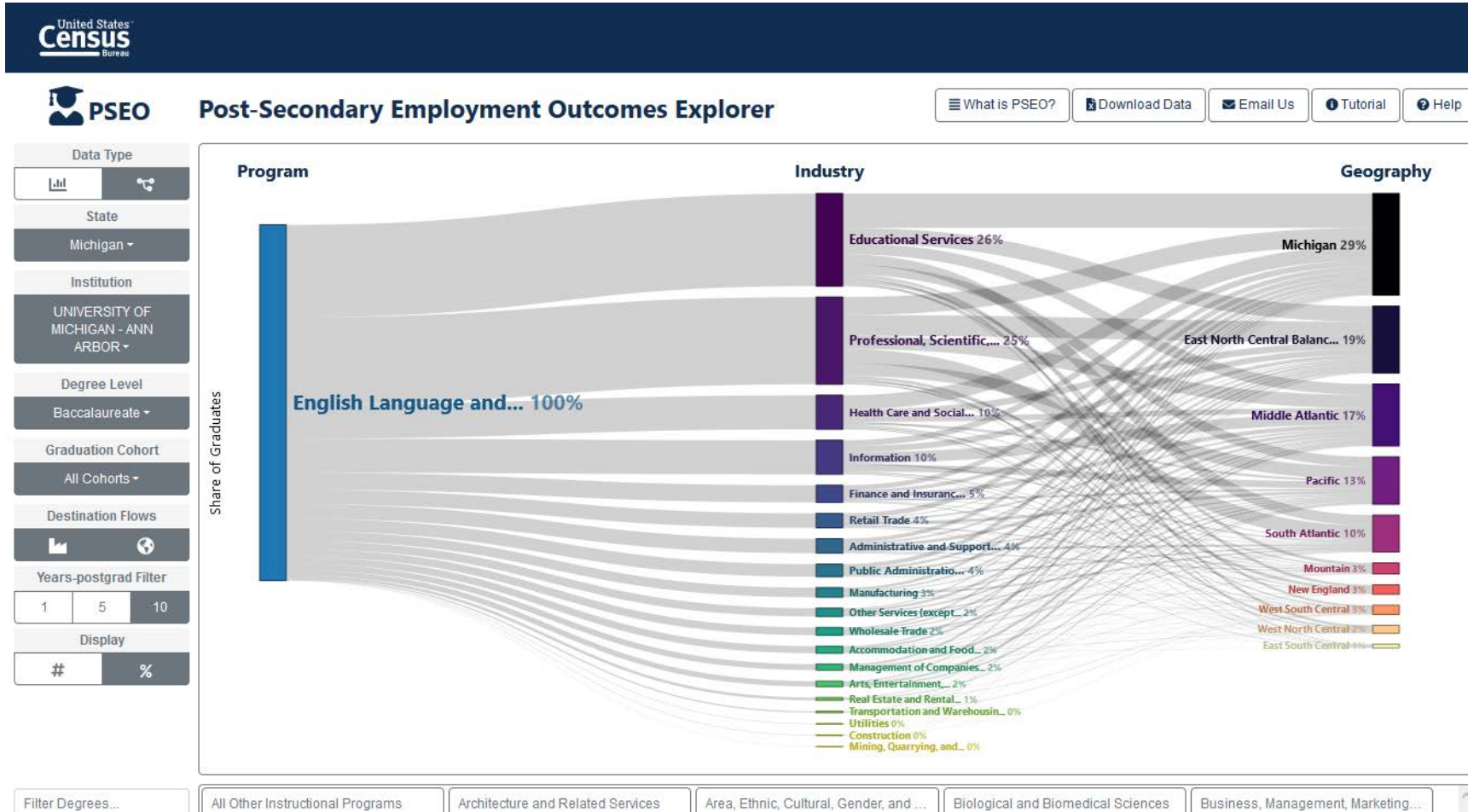
U-M has publicly released data on the industries in which their graduates work. For bachelor’s degree graduates (across all fields and years), the top industries for employment 10 years after graduation were:

August 6, 2019

Contact: [Greta Guest](mailto:gguest@umich.edu)  
[gguest@umich.edu](mailto:gguest@umich.edu),  
[Dan Meisler](mailto:dmeisler@umich.edu)  
[dmeisler@umich.edu](mailto:dmeisler@umich.edu)

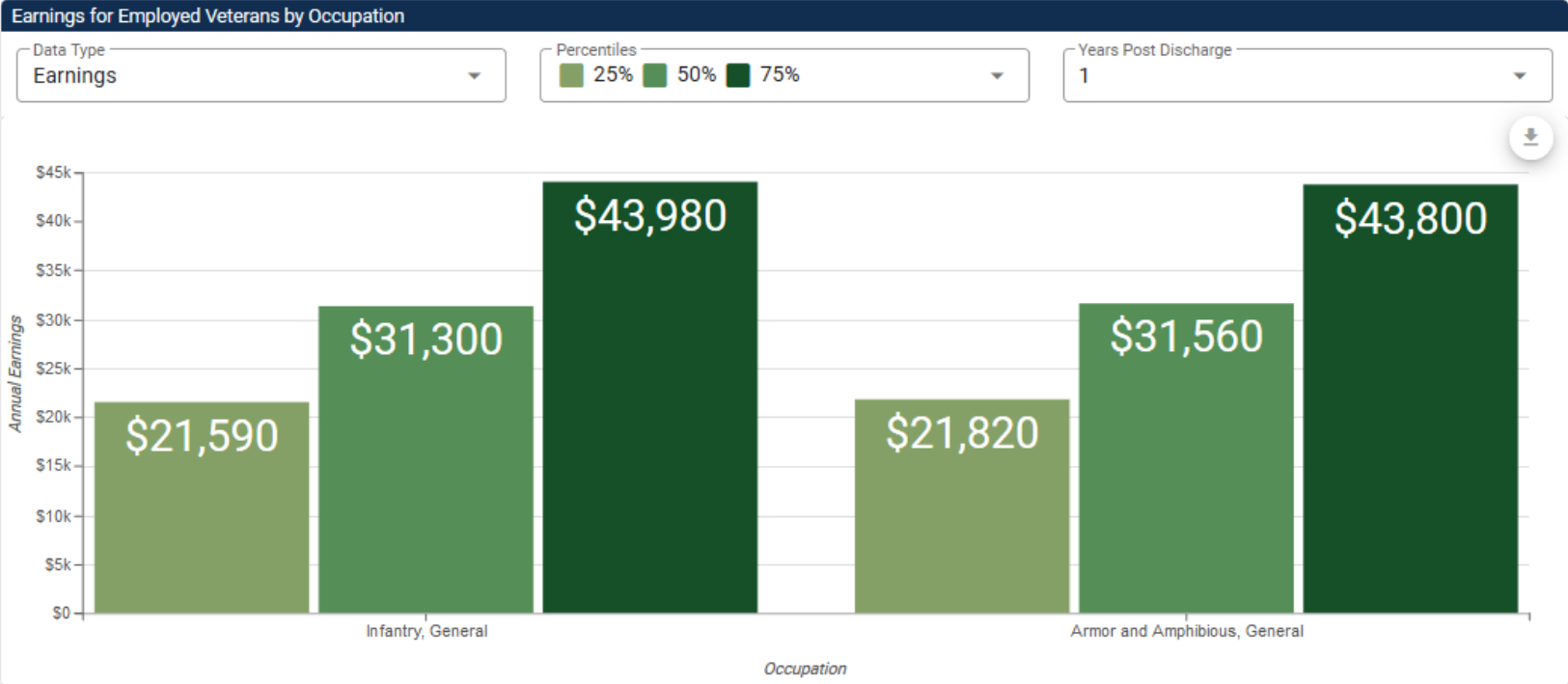
Share on: [Twitter](#) [Facebook](#) [LinkedIn](#)

# PSEO Explorer



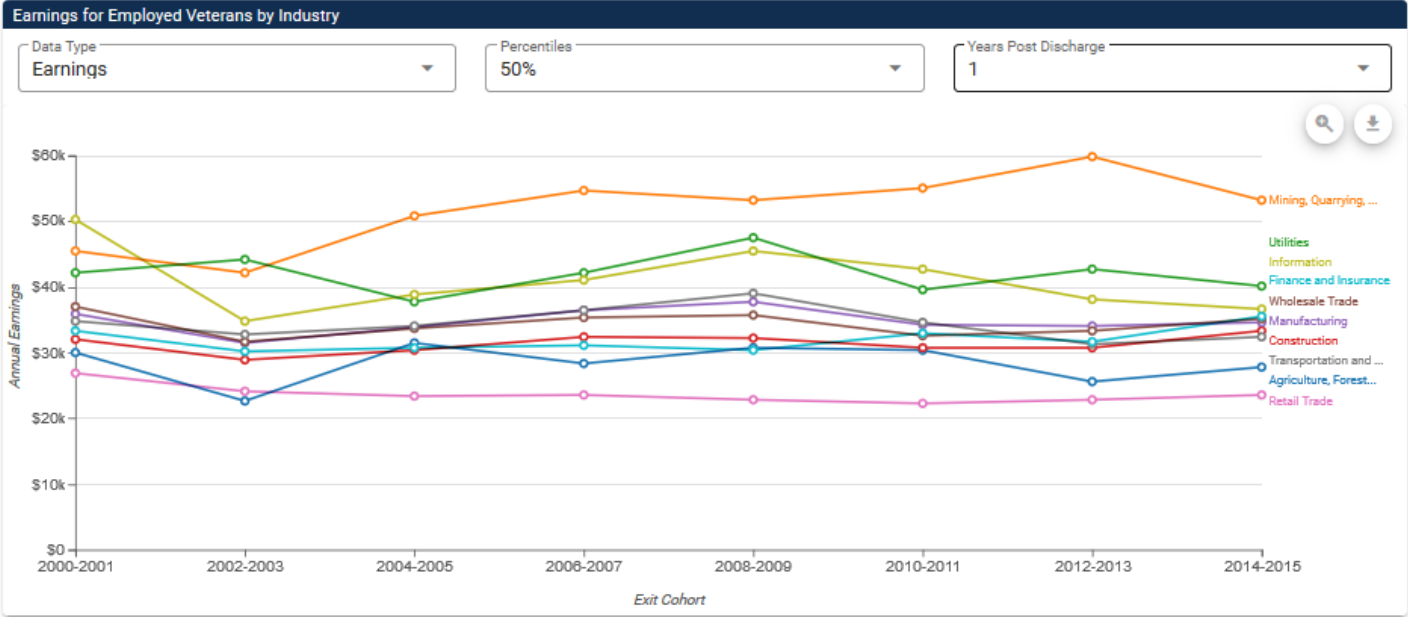
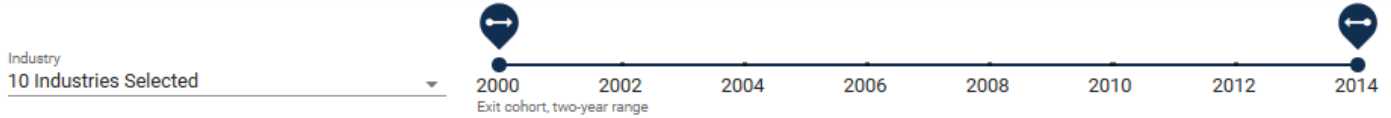
# Veteran's Employment Outcome

Occupation: 2 Occupations Selected  
Cohort: 2000-2007



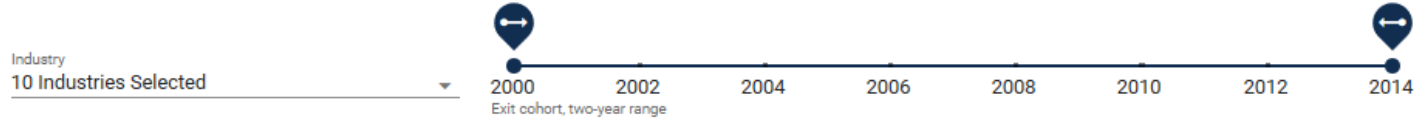
# Industry

MILITARY SPECIALIZATION ▾ SERVICE CHARACTERISTIC ▾ DEMOGRAPHIC ▾ **INDUSTRY ▾** HELP



# Employment Rates

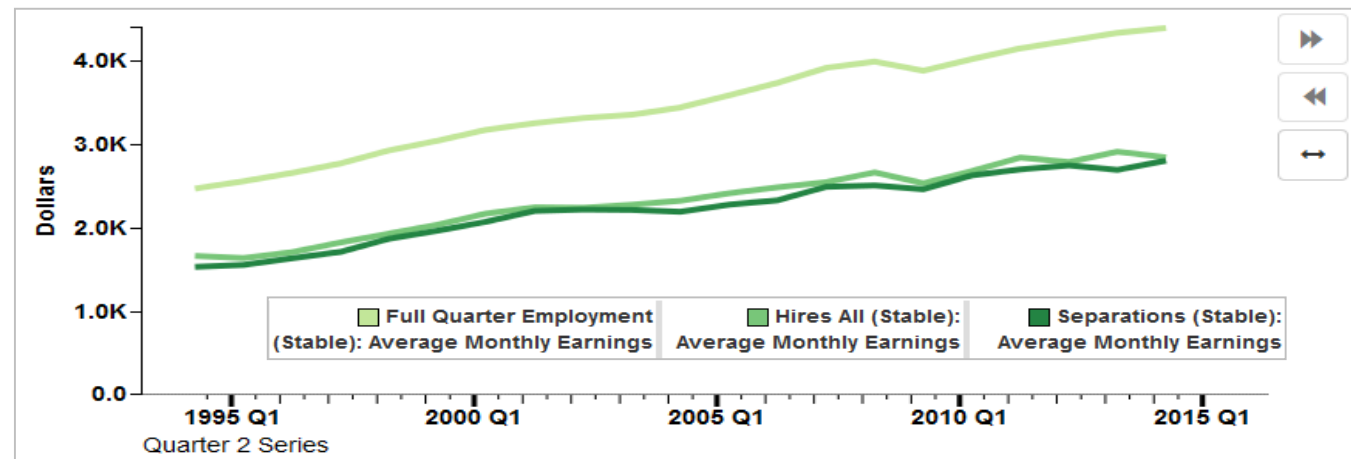
MILITARY SPECIALIZATION ▾ SERVICE CHARACTERISTIC ▾ DEMOGRAPHIC ▾ INDUSTRY ▾ HELP ?





# Takeaways: Why Are LED Data Tools Important?

- Accessibility
- “Explorability”
- Provide context
- Visualizations lead to insight
- Promote/market the data
- Provide “value-add” for our state partners



# Q & A and Thank You!

For more information, contact:  
Earlene.KP.Dowell@census.gov  
**(301)763-9628**

