

Drilling Deeper into Employment Data Using LEHD's Explorer Tools

January 15, 2020

Presenters: Earlene Dowell and Joyce Hahn

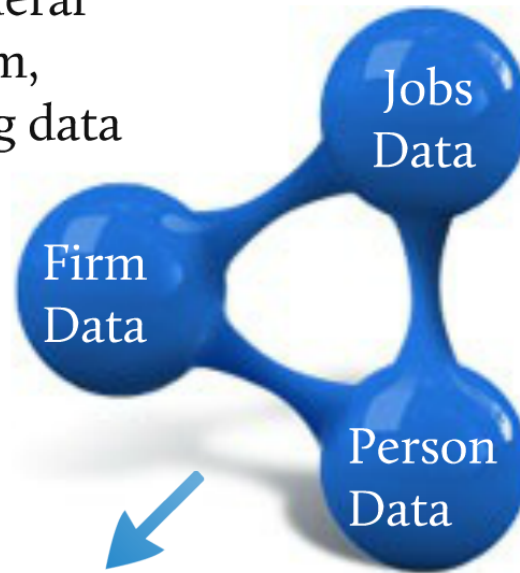


Disclaimer

- Any opinions and conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.
- Additionally, these opinions and conclusions are not representative of other data products or programs within the Census Bureau.

What are LEHD and LED?

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

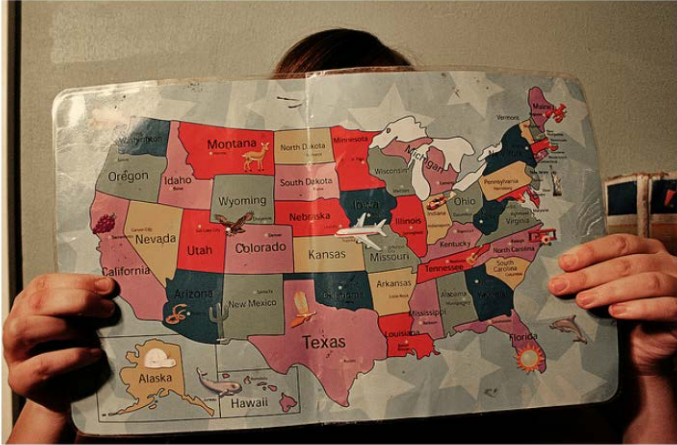


New linked national jobs data for the U.S.

The LEHD Program at Census

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

Local Employment Dynamics: Public Use Data Products



The Quarterly Workforce Indicators (QWI) Accessed through the QWI Explorer

- Employment
- Job Creation, Job Destruction, Hires, Separations, Turnover
- By industry, county, CBSA, state, Workforce Investment Area (WIA) and worker characteristics

Job-to-Job Flows (J2J) Accessed through the J2J Flows Explorer

- Traces worker movement through industries, geographic labor markets, and to/from employment

OnTheMap/LEHD Origin-Destination Employment Statistics (LODES) Accessed through OnTheMap and OnTheMap for Emergency Management

- Employment at the Census block level by where workers live and work
- Popular uses - local economic development, business site selection, and emergency planning



Post-Secondary Employment Outcomes (PSEO) Accessed through the PSEO Explorer

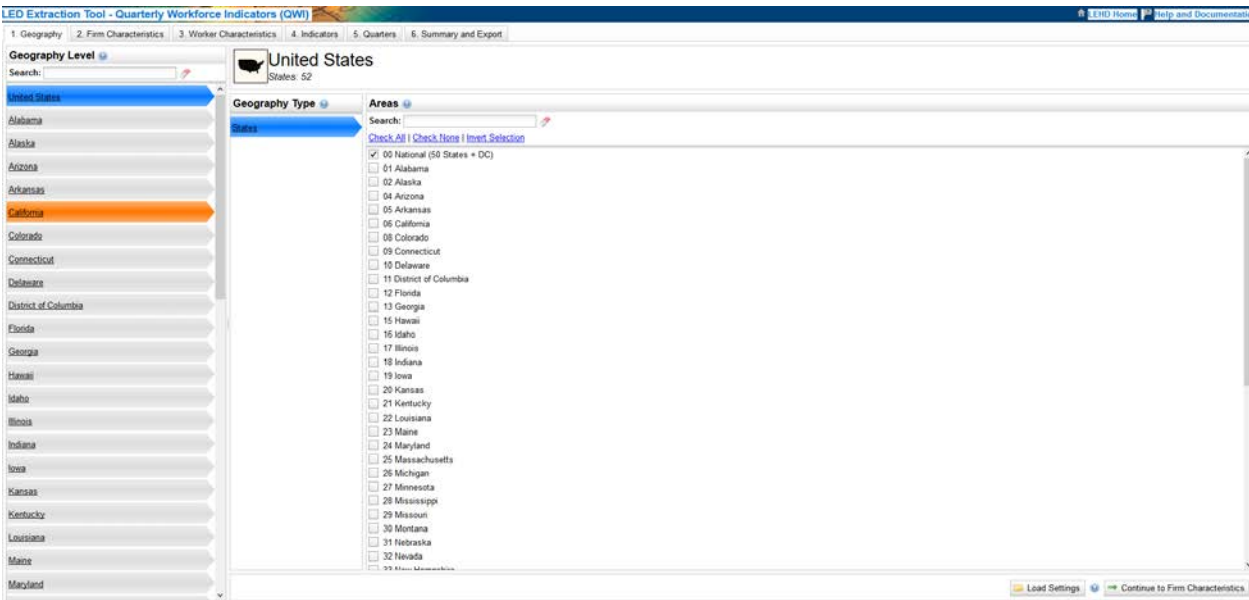
- New set of statistics on the earnings and employment outcomes of graduates of post-secondary institutions in the United States,



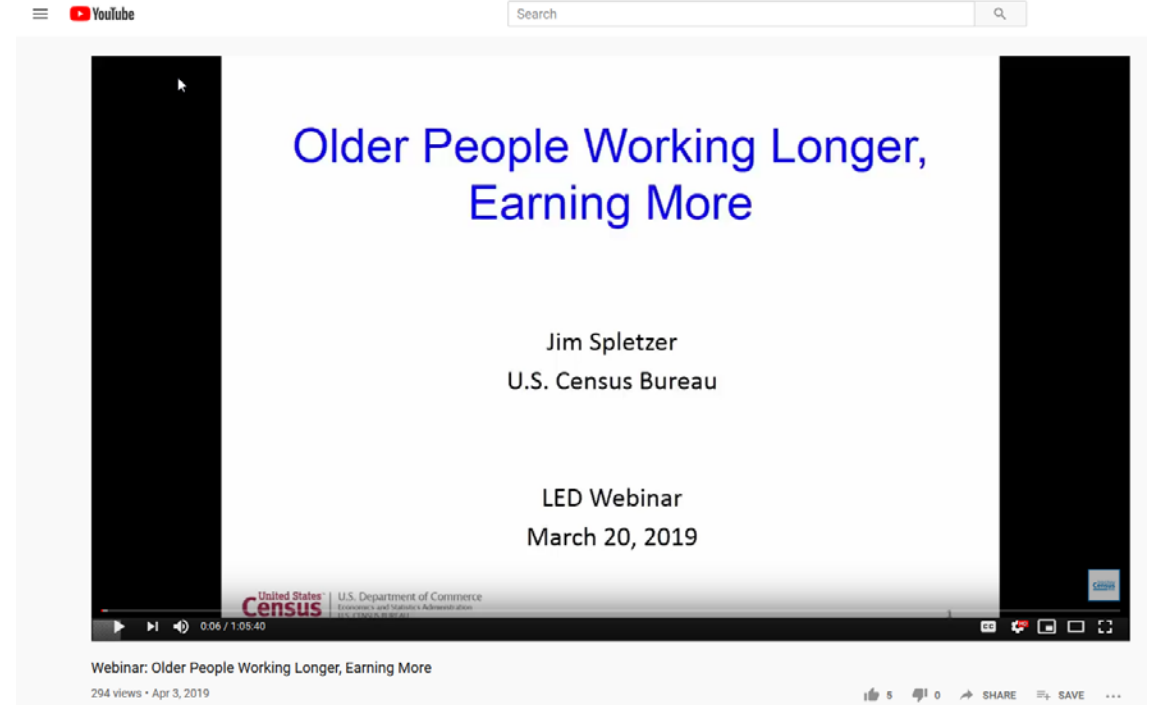
What Is Ahead for the Nation's Aging Workforce?

- 17 percent for workers aged 14-24, a \$245 increase from \$1,431 to \$1,676.
- 20 percent for workers aged 25-34, a \$600 increase from \$3,049 to \$3,649.
- 32 percent for workers aged 35-44, a \$1,254 increase from \$3,939 to \$5,193.
- 32 percent for workers aged 45-54, a \$1,390 increase from \$4,363 to \$5,753.
- 41 percent for workers aged 55-64, a \$1,629 increase from \$3,928 to \$5,557.
- 80 percent for workers aged 65-99, a \$1,816 increase from \$2,276 to \$4,092.

LED Extraction Tool



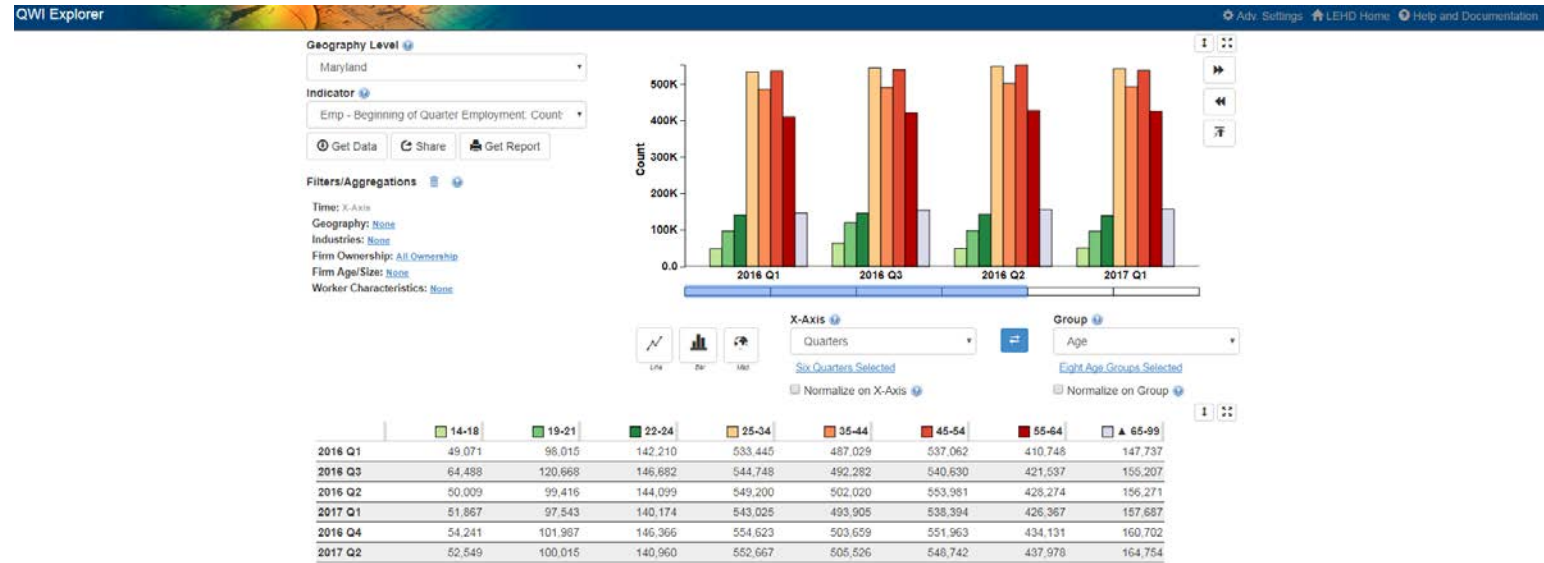
<https://ledextract.ces.census.gov/static/data.html>



<https://www.youtube.com/watch?v=AhFi59Fbzlw>

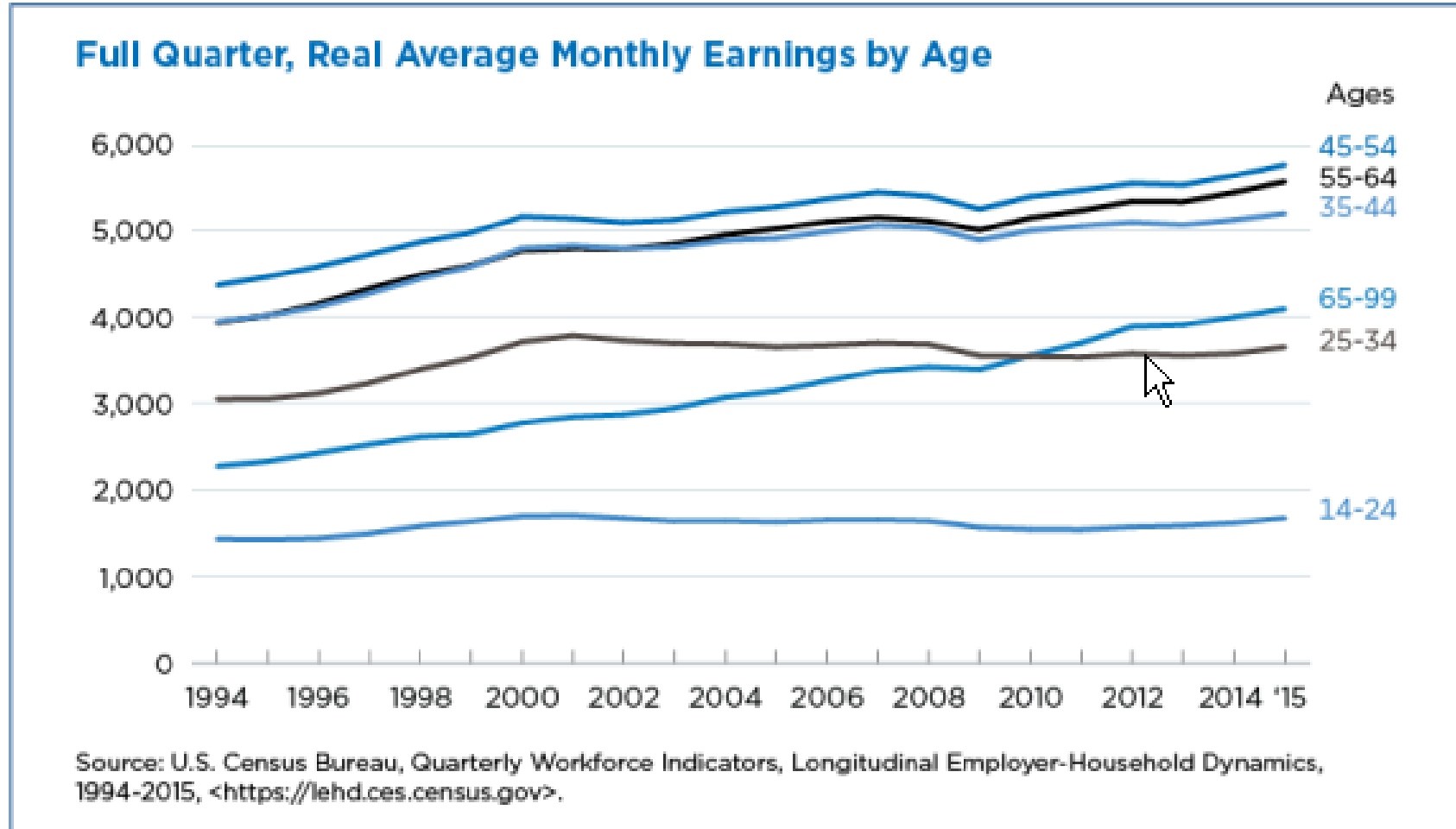
QWI Explorer

- ✓ 32 Quarterly Workforce Indicators
- ✓ Flexible Pivot Table and Map/Chart interface
- ✓ Data on detailed interactions between firms and workers include employment, employment change (individual and firm), and earnings
- ✓ Analyze/report by worker demographics: age, earnings, race, ethnicity, educational attainment, and sex



- ✓ Analyze/report by firm characteristics: NAICS classification (sector, 3, 4), firm age, and firm size
- ✓ Quarterly data very current (9-12 months old)
- ✓ National and 50 states available (plus DC)

Average Monthly Earnings by Age



National Yearly Earnings

QWI Explorer

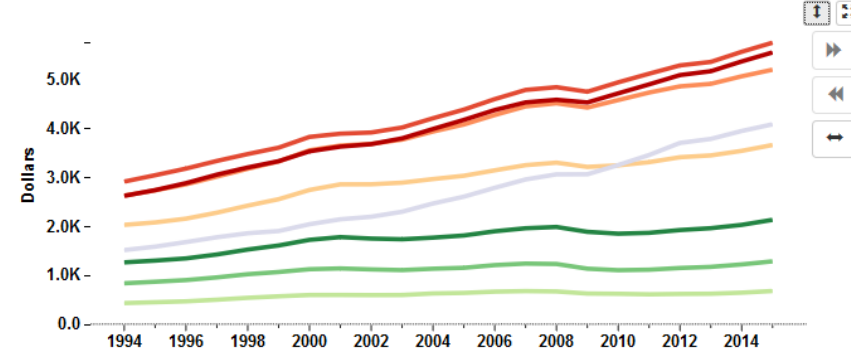
Geography Level
United States

Indicator
EarnS - Full Quarter Employment (Stable): Av

Get Data Share Get Report

Filters/Aggregations

Time: X-Axis
 Geography: None
 Industries: None
 Firm Ownership: All Private Ownership
 Firm Age/Size: None
 Worker Characteristics: None



X-Axis: Yearly Averages
 Group: Age
 22 Years Selected
 Eight Age Groups Selected
 Normalize on X-Axis
 Normalize on Group

	14-18	19-21	22-24	25-34	35-44	45-54	55-64	65-99
2004	636	1,143	1,778	2,975	3,945	4,217	3,998	2,476
2005	649	1,162	1,822	3,042	4,090	4,394	4,184	2,615
2006	675	1,217	1,908	3,153	4,283	4,608	4,385	2,796
2007	686	1,248	1,970	3,259	4,459	4,796	4,541	2,967
2008	679	1,240	1,996	3,310	4,523	4,852	4,595	3,071
2009	636	1,144	1,897	3,223	4,435	4,759	4,540	3,073
2010	631	1,113	1,859	3,255	4,589	4,951	4,726	3,261
2011	620	1,123	1,876	3,320	4,742	5,127	4,909	3,466
2012	628	1,158	1,933	3,421	4,869	5,297	5,099	3,713
2013	632	1,181	1,971	3,458	4,920	5,368	5,178	3,795
2014	654	1,231	2,039	3,551	5,074	5,575	5,378	3,957
2015	688	1,294	2,142	3,671	5,209	5,761	5,562	4,094

America Counts: Impact of Tech Boom on Housing



Combining Census Bureau and Zillow Housing Data Show Rise in Rental Prices and Home Values in Tech-Rich Areas

EARLENE K.P. DOWELL | APRIL 30, 2019

You've heard of the "Amazon Effect." Now you can see it.

By combining U.S. Census Bureau data and their own housing listings, economists from Zillow, an online real estate search engine, have been able to show just how much rental prices and home values have skyrocketed in areas across the country that are experiencing a tech boom.

Zillow combines housing data and Census Bureau data to help understand the link between housing prices and the tech boom.



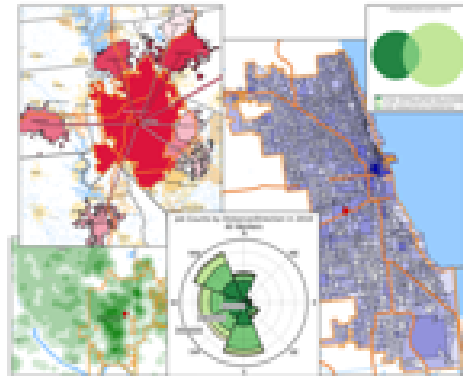
OnTheMap, LODES, and Labor Demand Shock

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

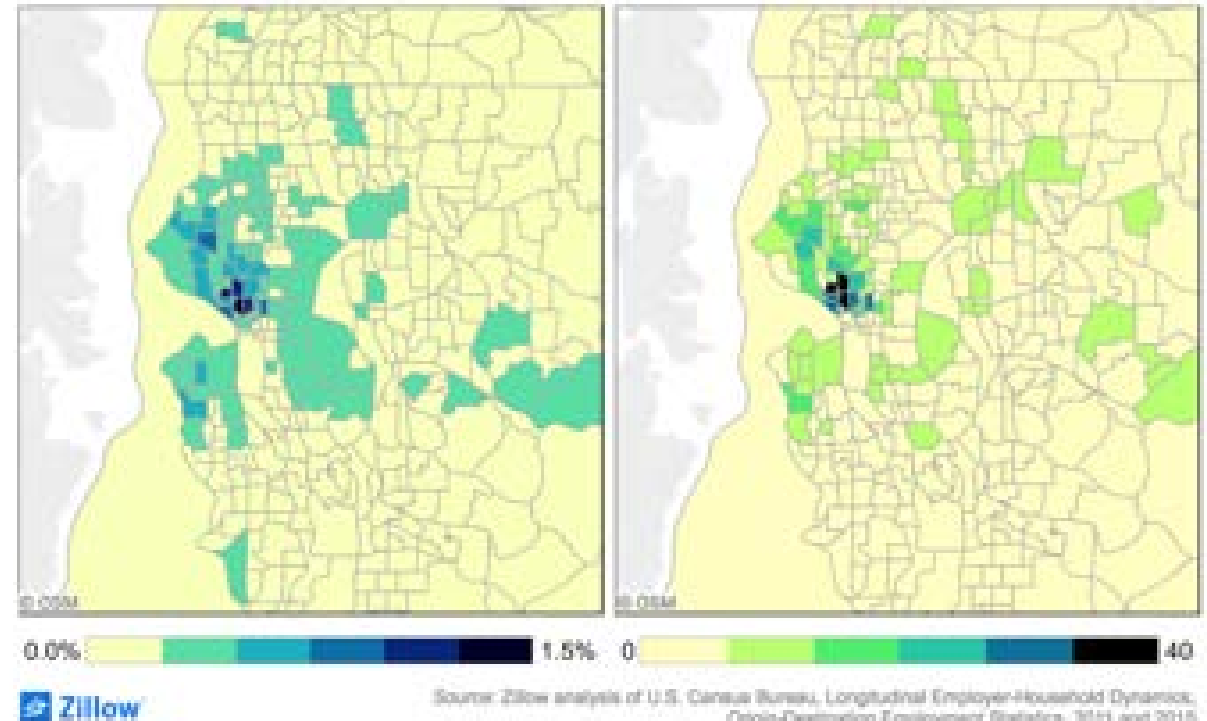


- ✓ 2002-2015 annual data
- ✓ 50 states available (plus DC)
- ✓ User-selected areas
- ✓ Based on Census Blocks
- ✓ Disclosure protection
- ✓ Flexible Inputs/Outputs

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

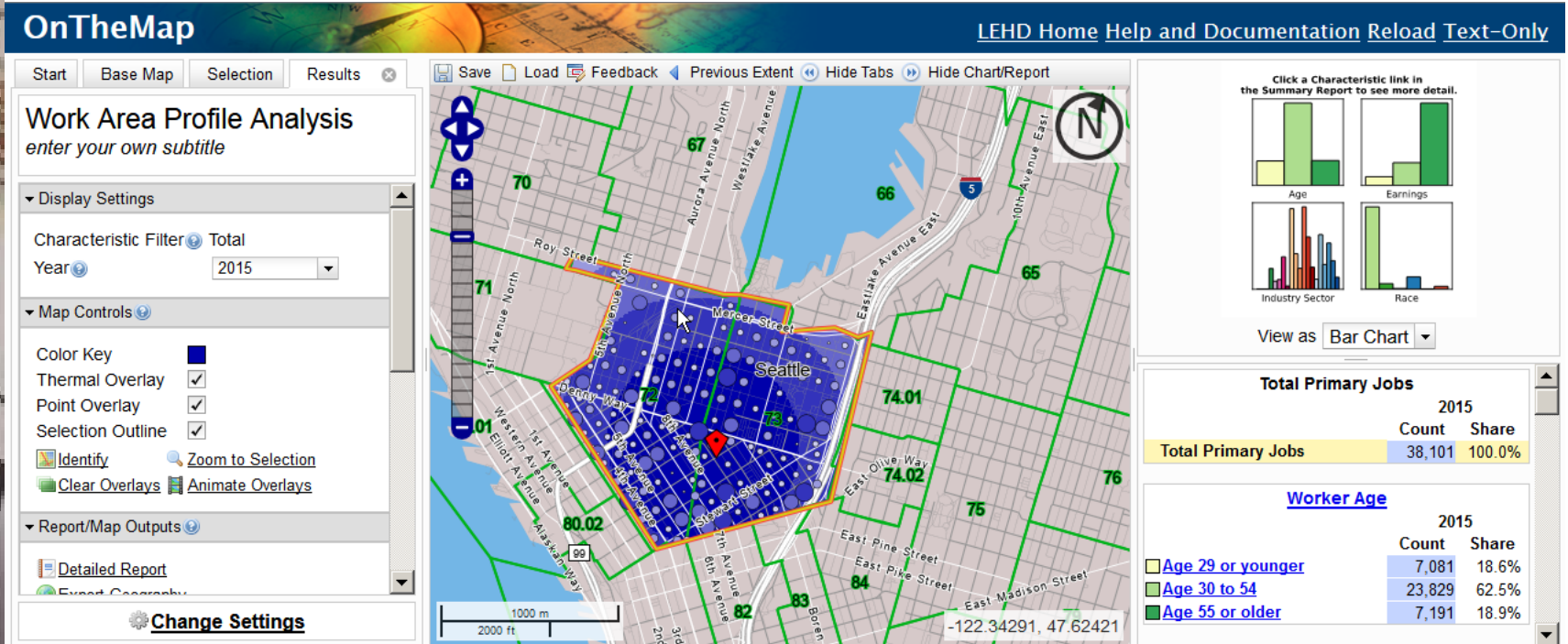
Distribution of SLU workers across census tract of residence, 2015

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



Source: Zillow analysis of U.S. Census Bureau, Longitudinal Employer-Household Dynamics, Origin-Destination Employment Statistics, 2011 and 2015.

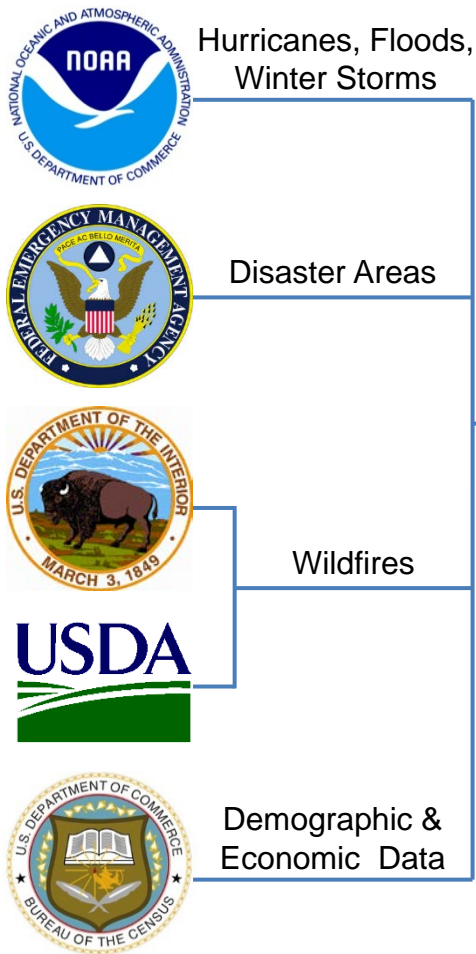
Amazon Effect



LODES/OnTheMap Update

- LODES for 2016 and 2017 were released at the end of August
 - Both in raw data and OnTheMap
- Additional releases:
 - Backfilled Wyoming data for 2014 and 2015
 - Updated to TIGER 2018 (only affects the operation of OnTheMap and the geography crosswalk provided with LODES data)
- Other key points:
 - Data for Alaska and South Dakota are not available in 2017
 - Jobs for federal workers are not available in 2016 and 2017
 - The default Job Type of OnTheMap was changed to “Private Primary Jobs”

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 | Export | Share | Close

Detail by: Characteristics | Topic: 2010 Decennial Cou... | Analysis Area: Event Area

Population by Age

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%

Universe: Total Population | Source: 2010 Census | Source info >>

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

Housing Units

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

Universe: Housing Units | Source: 2010 Census | Source info >>

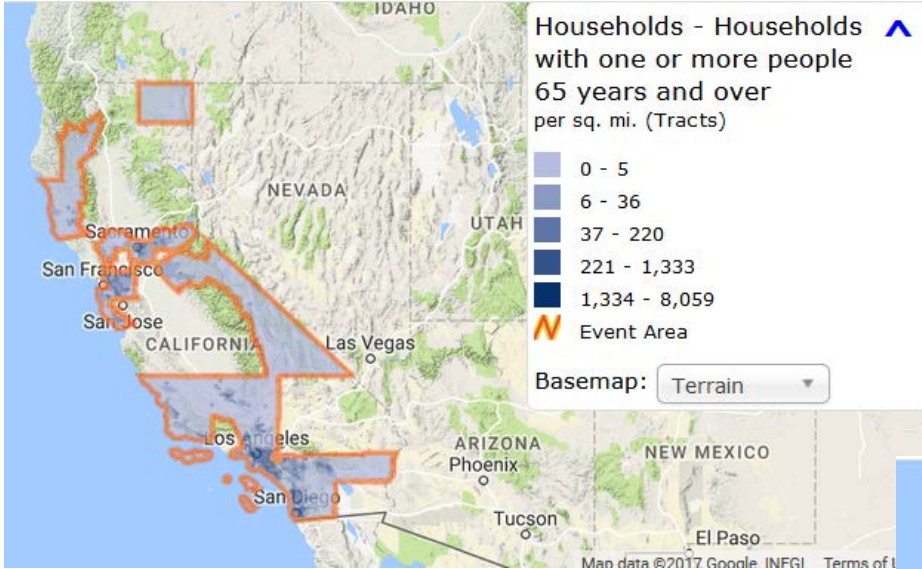
Privacy Policy | 2010 Census | Data Tools | Information Quality | Product Catalog | Contact Us | Home | Source: U.S. Census Bureau, Center for Economic Studies, LEHD | e-mail: CES.OnTheMap.Feedback@census.gov

New Public Data Service for Emergency Preparedness & Response

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

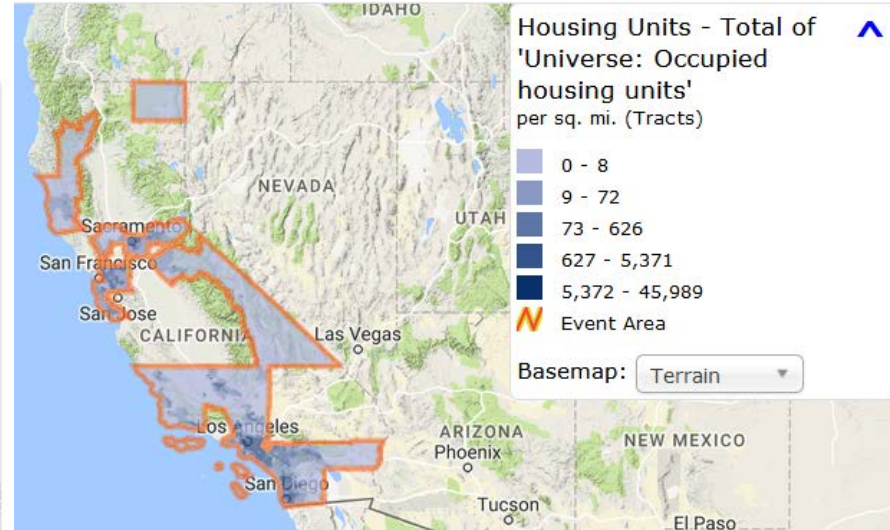


Social ACS

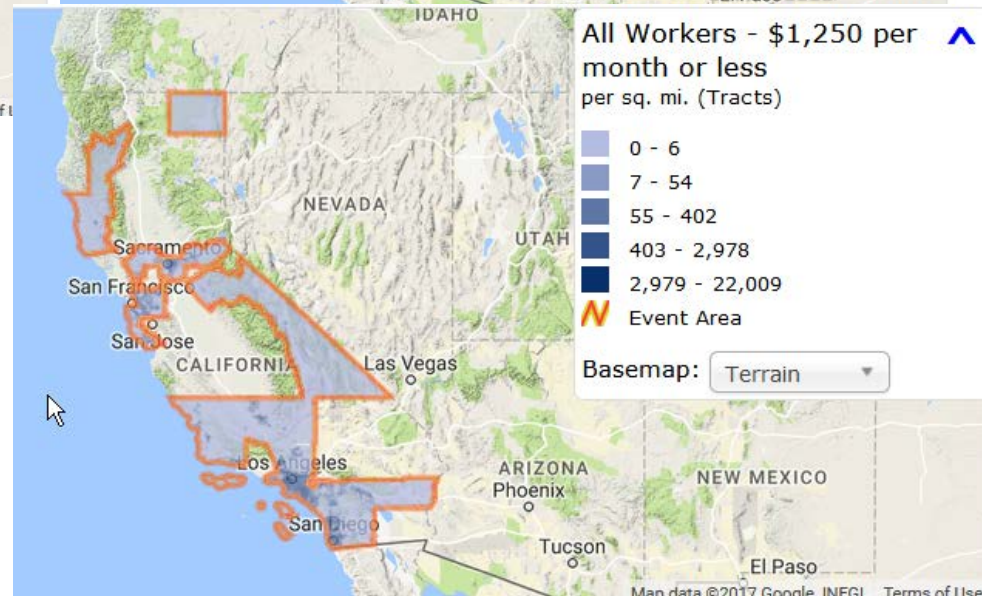


Vulnerabilities

Physical Decennial



Economical LODES



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

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 01/13/2020

Federal Disaster Declarations

DR-4337

Monroe County, FL, Miami-Dade County, FL, Palm Beach County, FL and 64 other Counties

Affected Population: 18,801,310

EM-3419

Monroe County, FL, Miami-Dade County, FL, Palm Beach County, FL and 64 other Counties

Affected Population: 18,801,310

DR-4353

Los Angeles County, CA, San Diego County, CA, Santa Barbara County, CA and 1 other Counties

Affected Population: 14,161,134

EM-3409

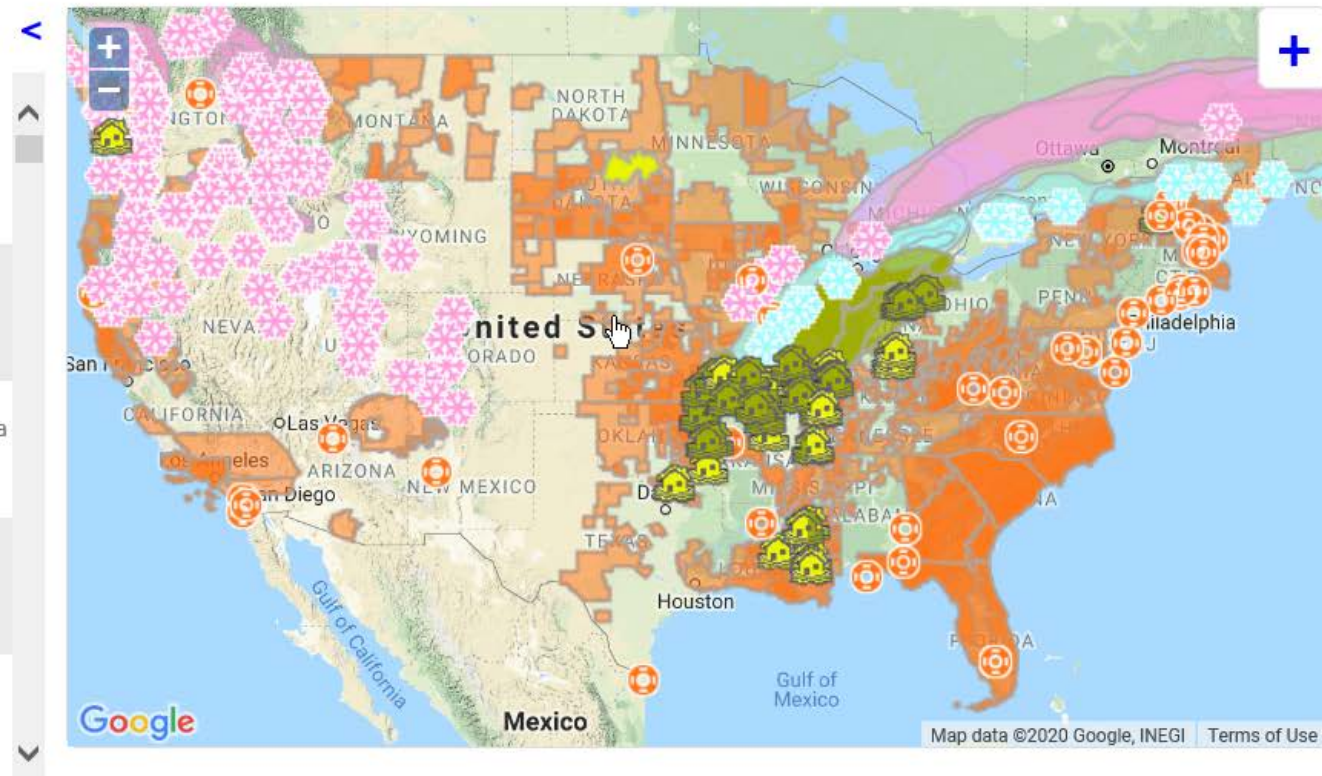
Los Angeles County, CA, Ventura County, CA, Butte County, CA

Affected Population: 10,861,926

DR-4407

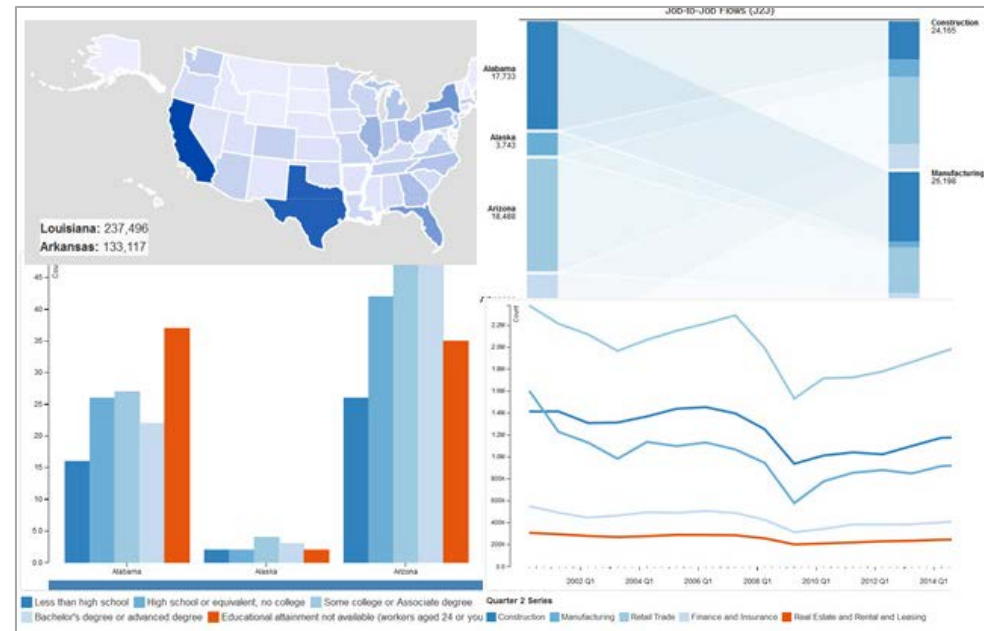
Los Angeles County, CA, Ventura County, CA, Butte County, CA

Affected Population: 10,861,926



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


Start with the Guided Entry


Job-to-Job Flows Explorer [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

 Memphis, TN-MS-AR

 Transportation and Warehousing

2. Then Choose an Analysis

Analysis of Job-to-Job Flows

From (Origin Job)	To (Destination Job)
Which States?	✓ Memphis, TN-MS-AR
Which Metro Areas?	✓ Transportation and Warehousing
Which Industries?	

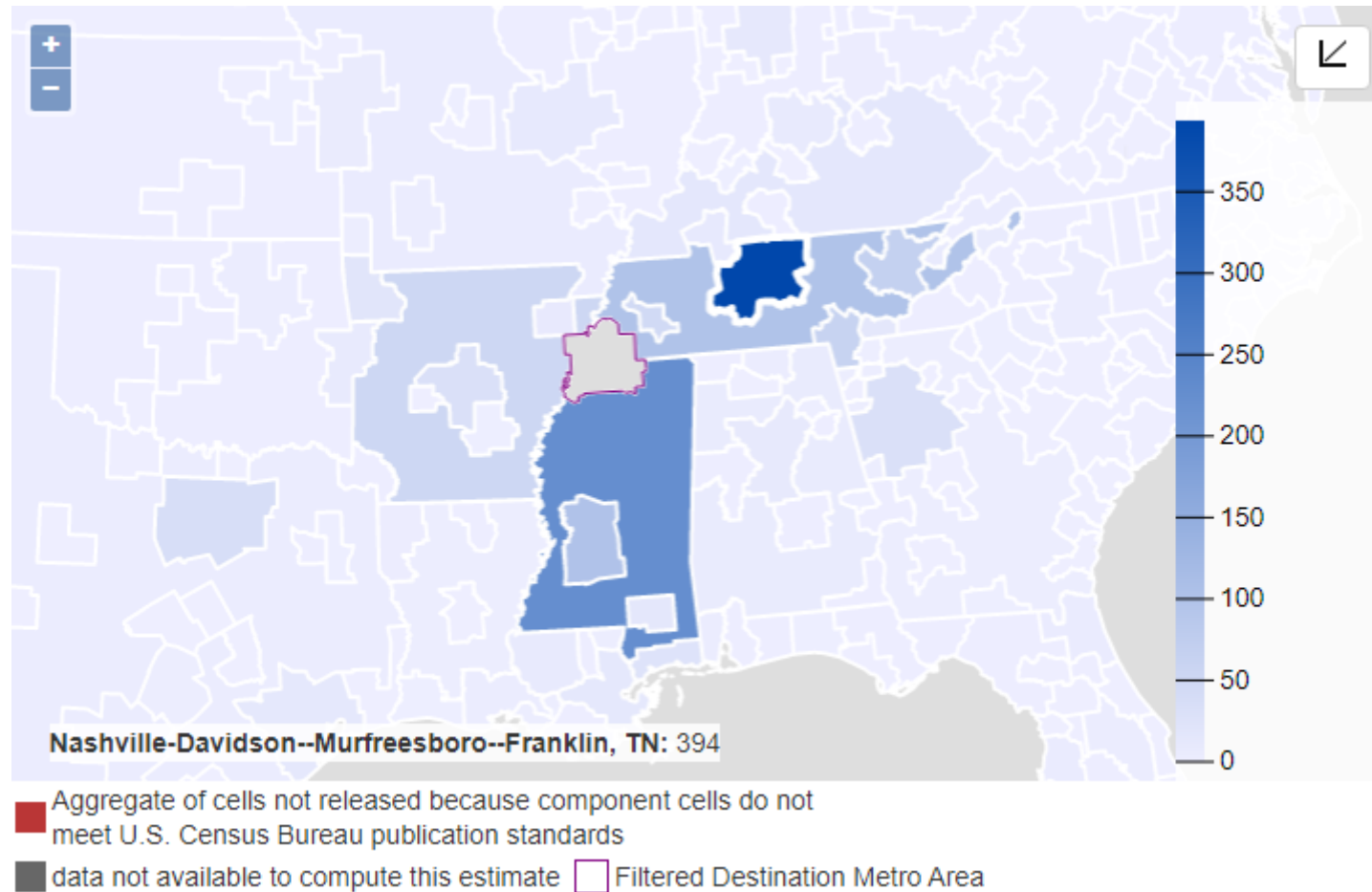
Analysis of Hires Over Time

- [Are hires to jobs in Memphis, TN-MS-AR Transportation and Warehousing coming from nonemployment or another job?](#)
- [How do earnings for hires to jobs in Memphis, TN-MS-AR Transportation and Warehousing compare to earnings for job stayers?](#)

Not sure? Try one of these recommended options:

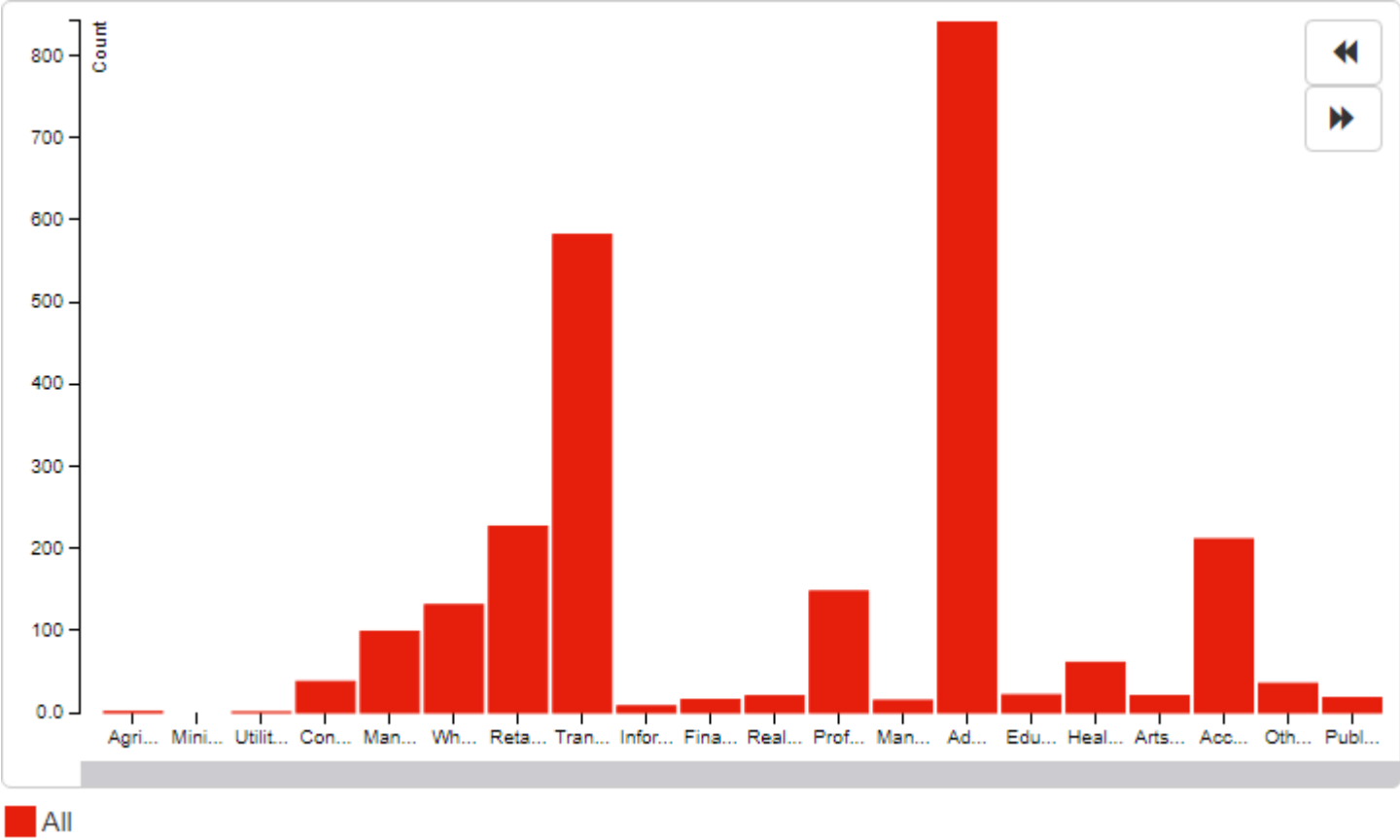
- [Where did Information workers with the highest earnings for job flows into Seattle come from?](#)
- [Which age groups are driving worker reallocation out of New England states?](#)
- [Are workers without a college degree in North Dakota more likely to be hired from another job or from persistent nonemployment?](#)
- [Are Construction workers who changed jobs during the Great Recession demographically different from Construction workers who became persistently nonemployed?](#)
- [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?](#)

Where are New Hires to Memphis's Transportation & Warehousing Sector Coming from?



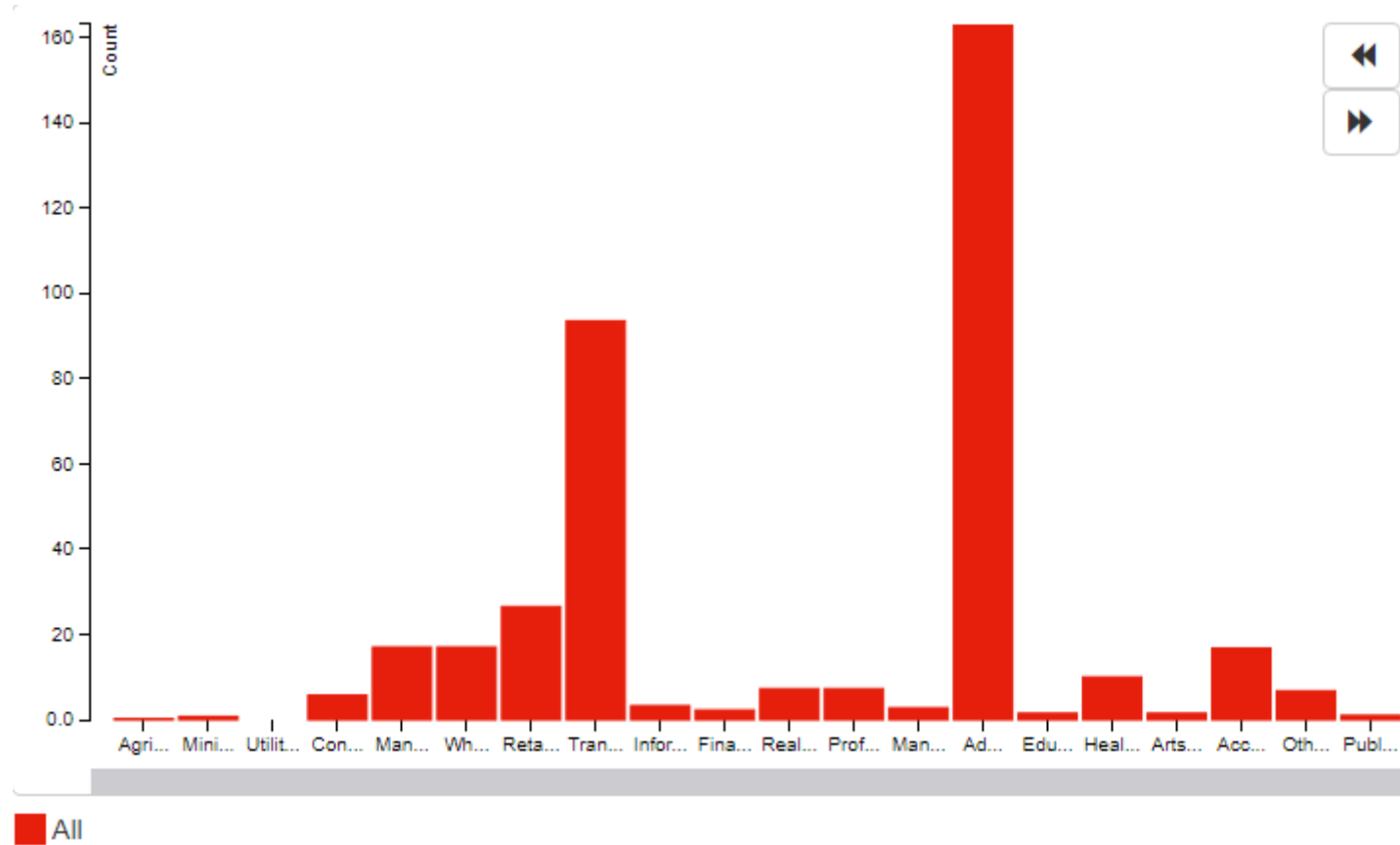
Does the Origin Industry Vary by Origin MSA?

Memphis



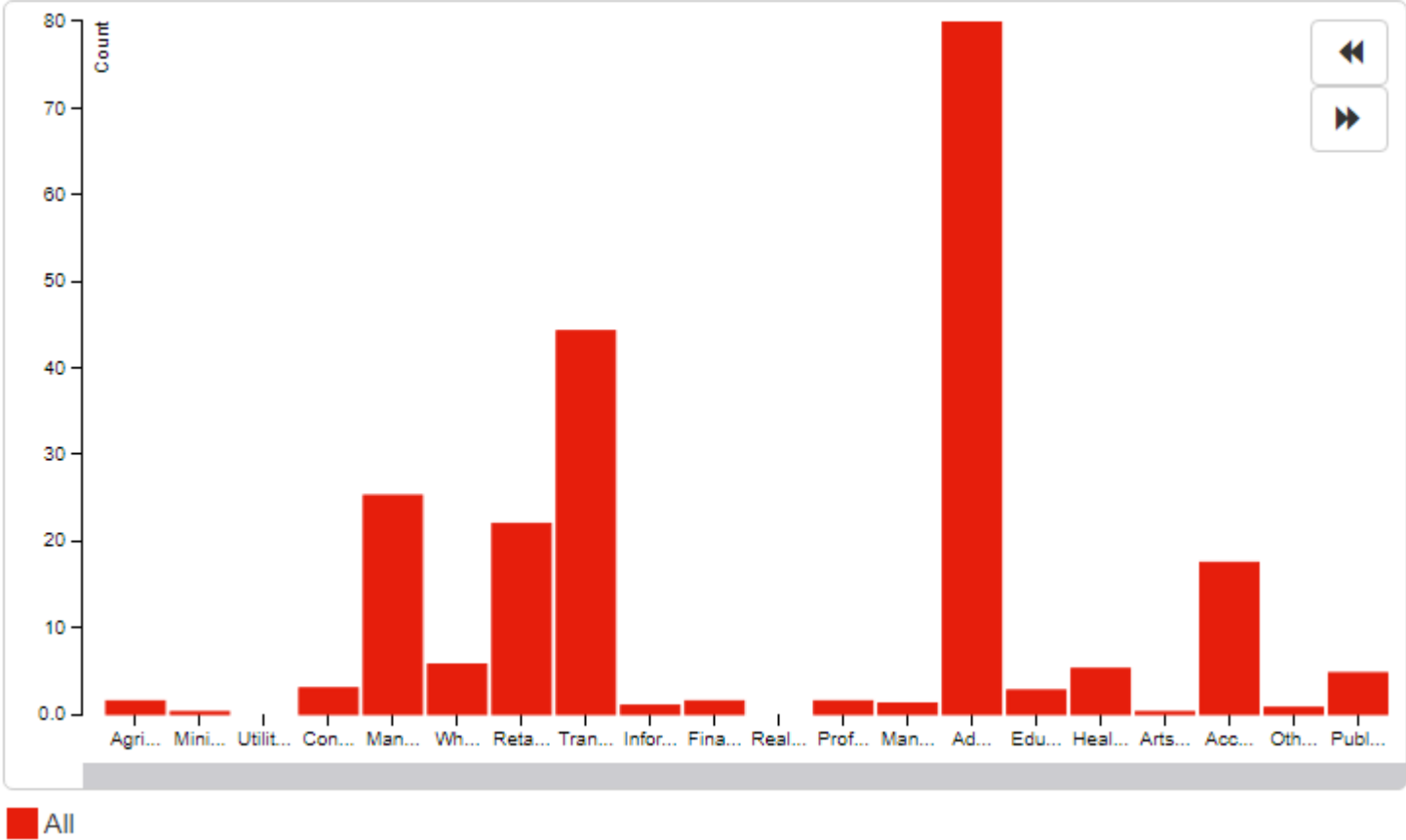
Does the Origin Industry Vary by Origin MSA?

Nashville-Davidson--Murfreesboro--Franklin

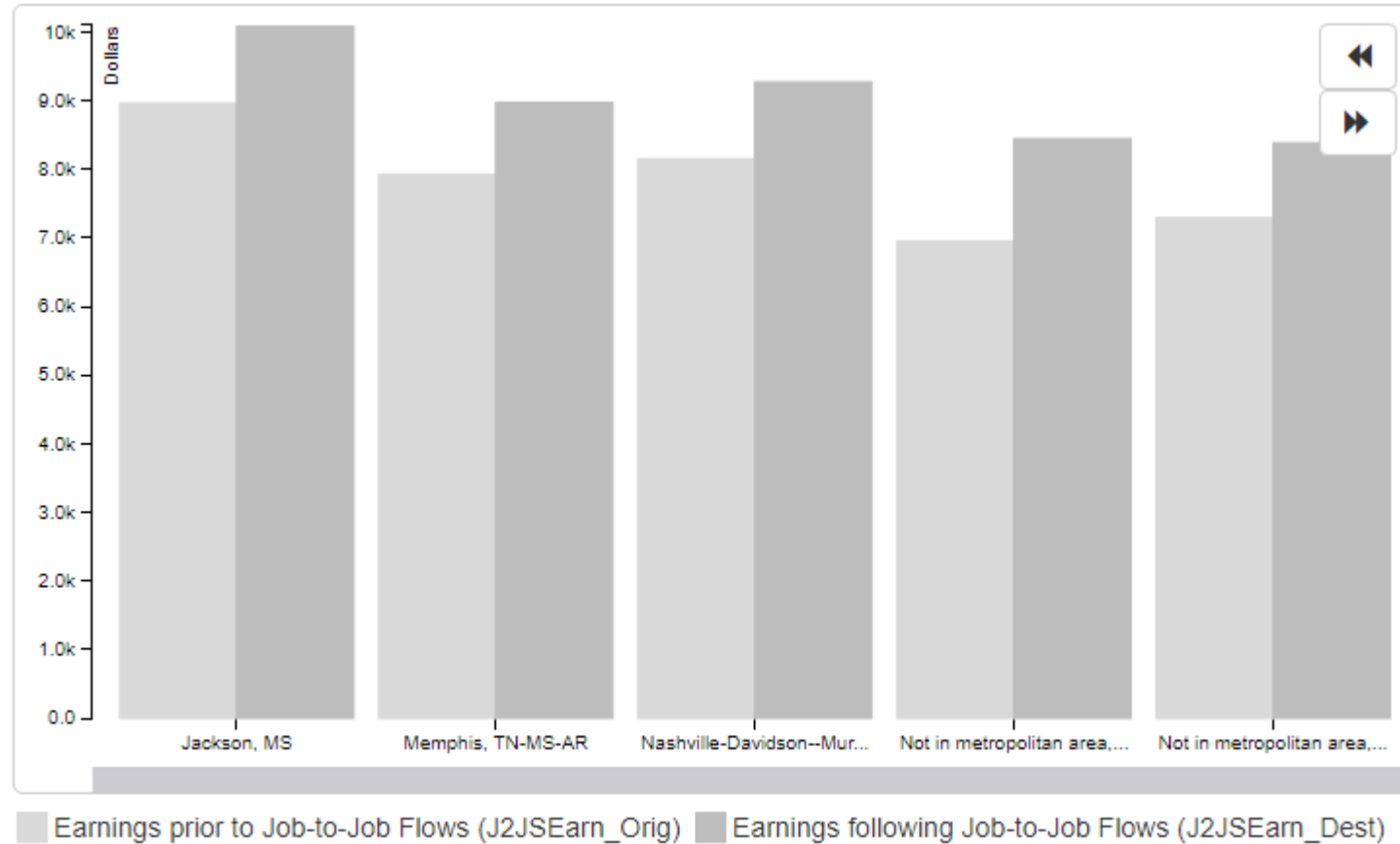


Does the Origin Industry Vary by Origin MSA?

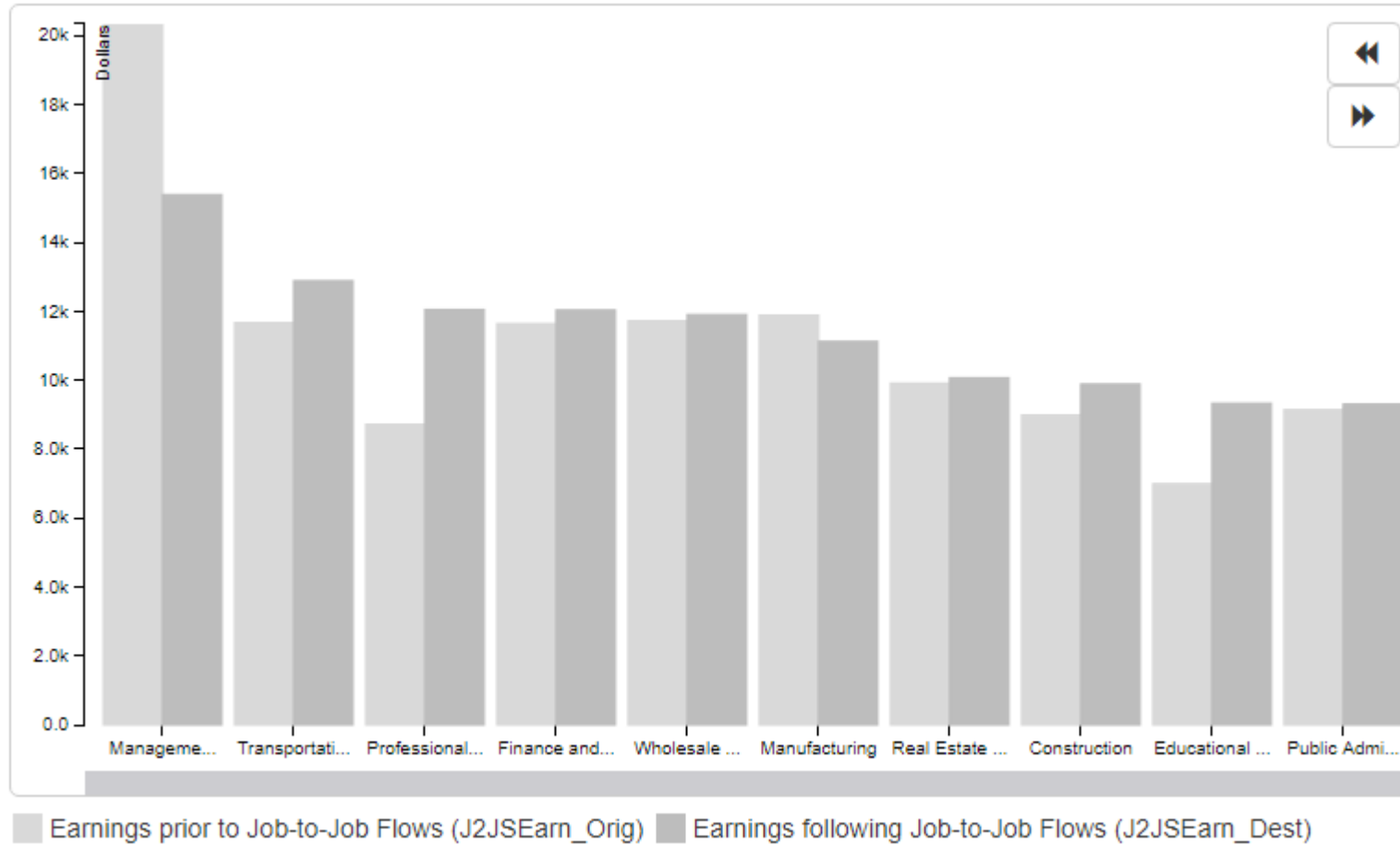
Not in metropolitan area, MS



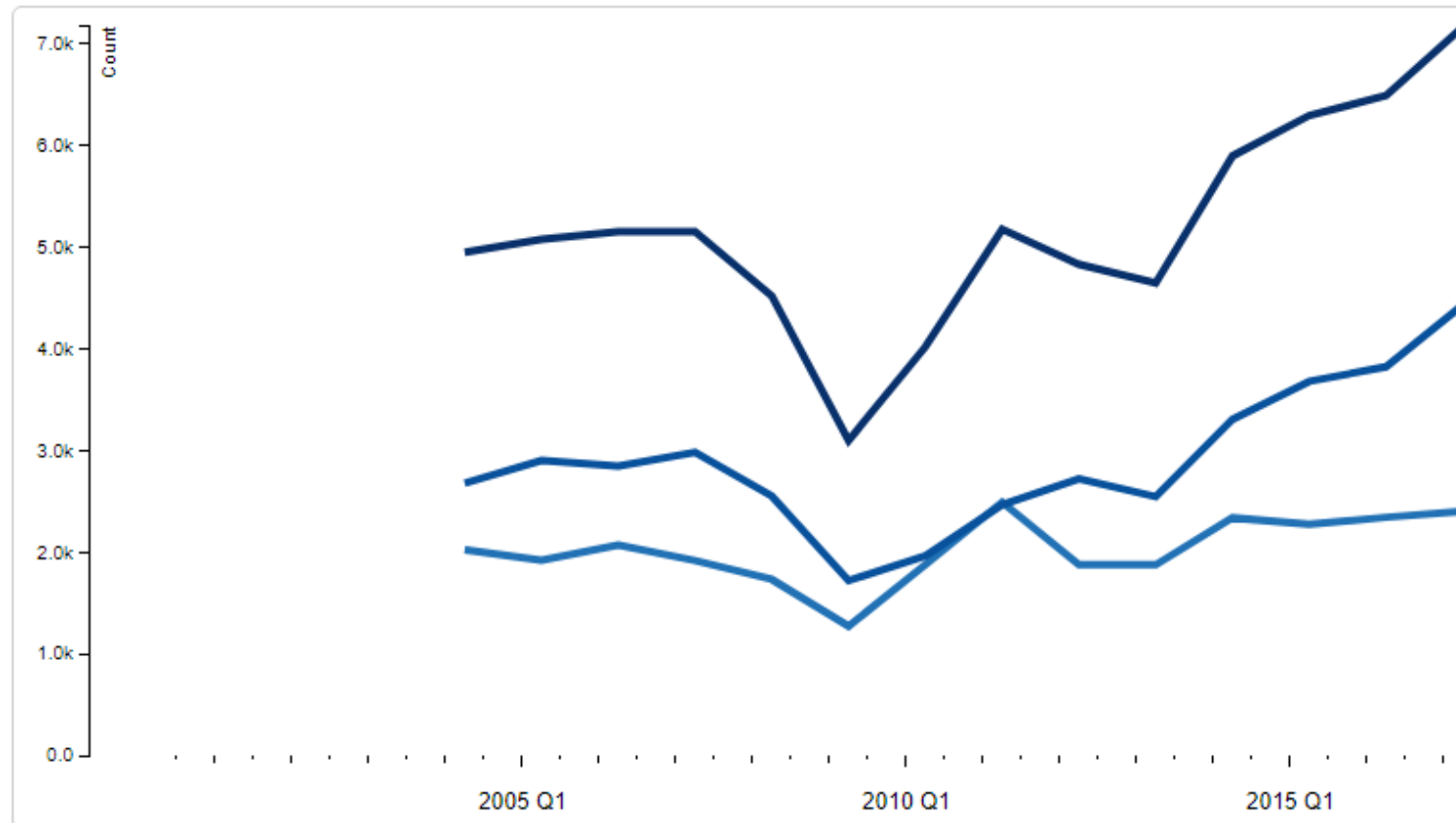
Do Earnings Vary by Origin MSA?



How about by Origin Industry?



Were workers hired into Memphis's Transportation and Warehousing Sector previously employed?



Quarter 2 Series

■ Hires (MHire) ■ Job-to-Job Hires (J2JHire) ■ Hires from Persistent Nonemployment (NEPersist)

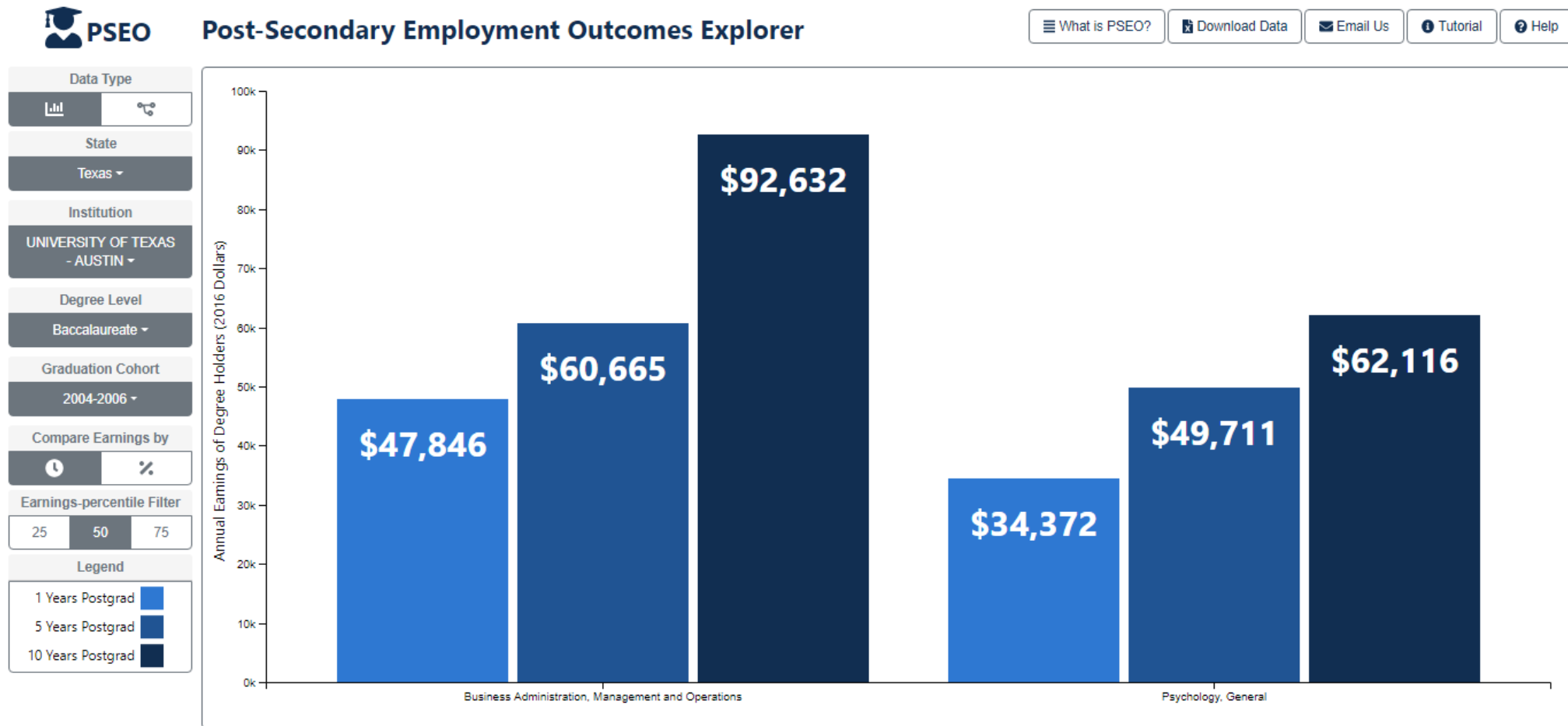
PSEO Explorer

PSEO data provide earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution.

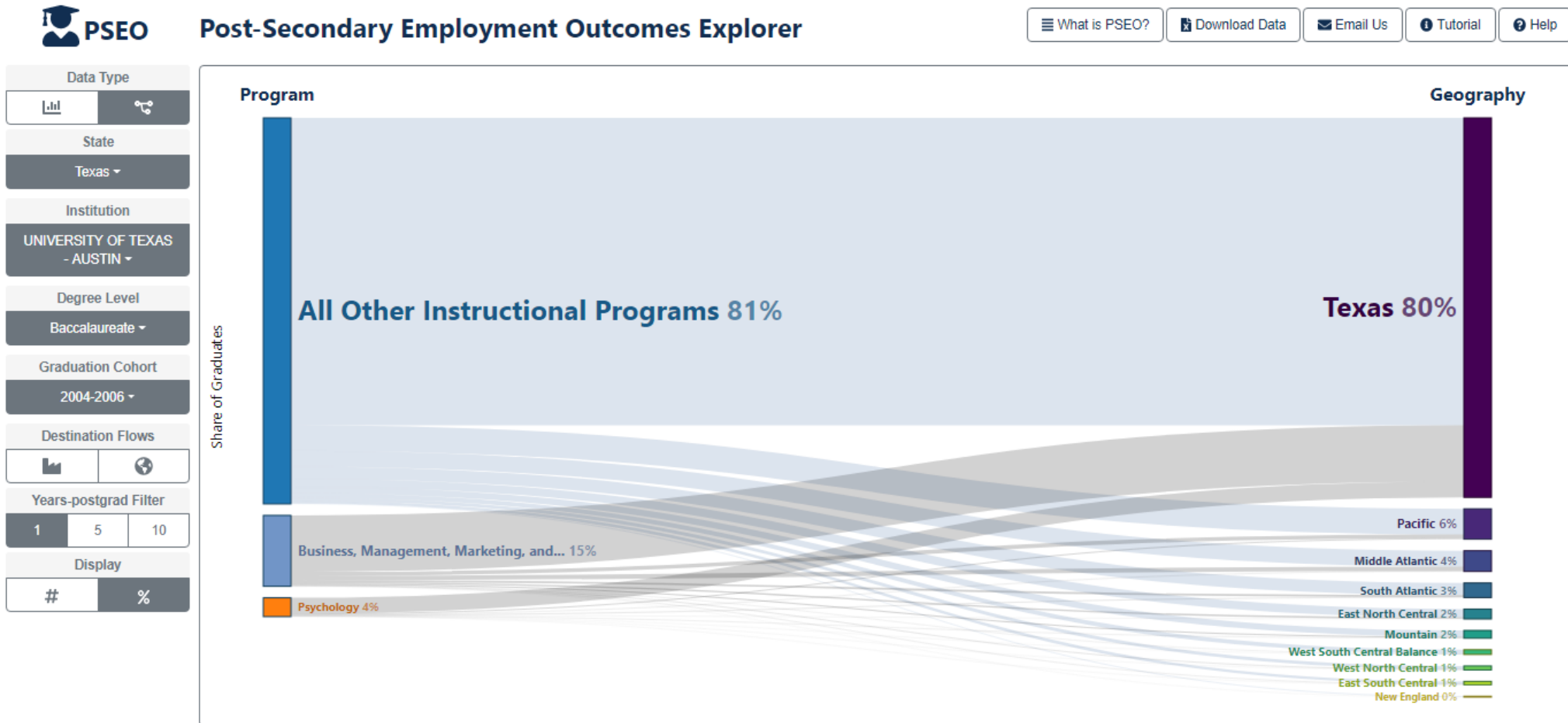
These statistics are generated by matching university transcript data with a national database of jobs, using state-of-the-art confidentiality protection mechanisms to protect the underlying data.

Currently, PSEO data are available for the University of Texas System, higher education institutions in Colorado, the University of Michigan, and the University of Wisconsin, Madison.

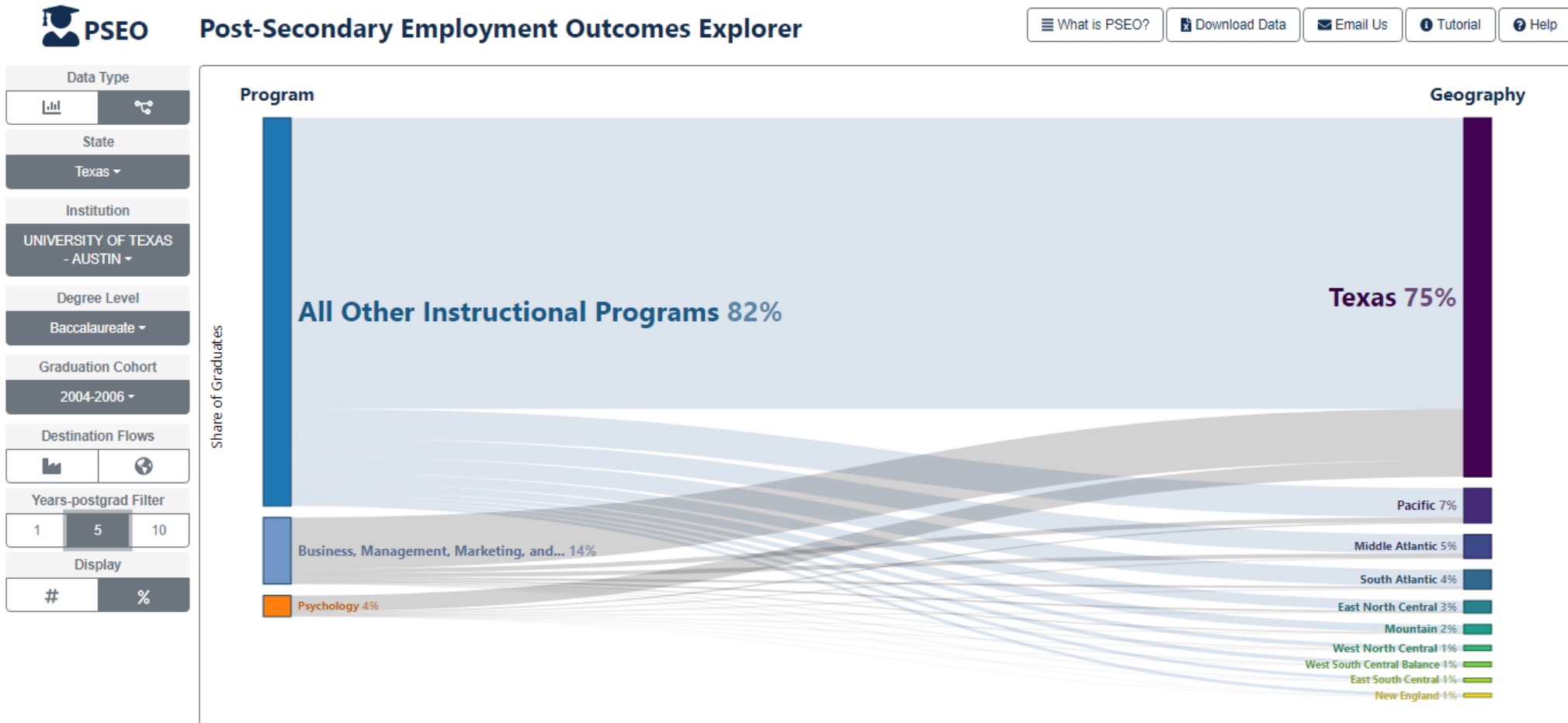
How Much are UT Austin Graduates Earning? 1-, 5-, 10-Years Post-Graduation



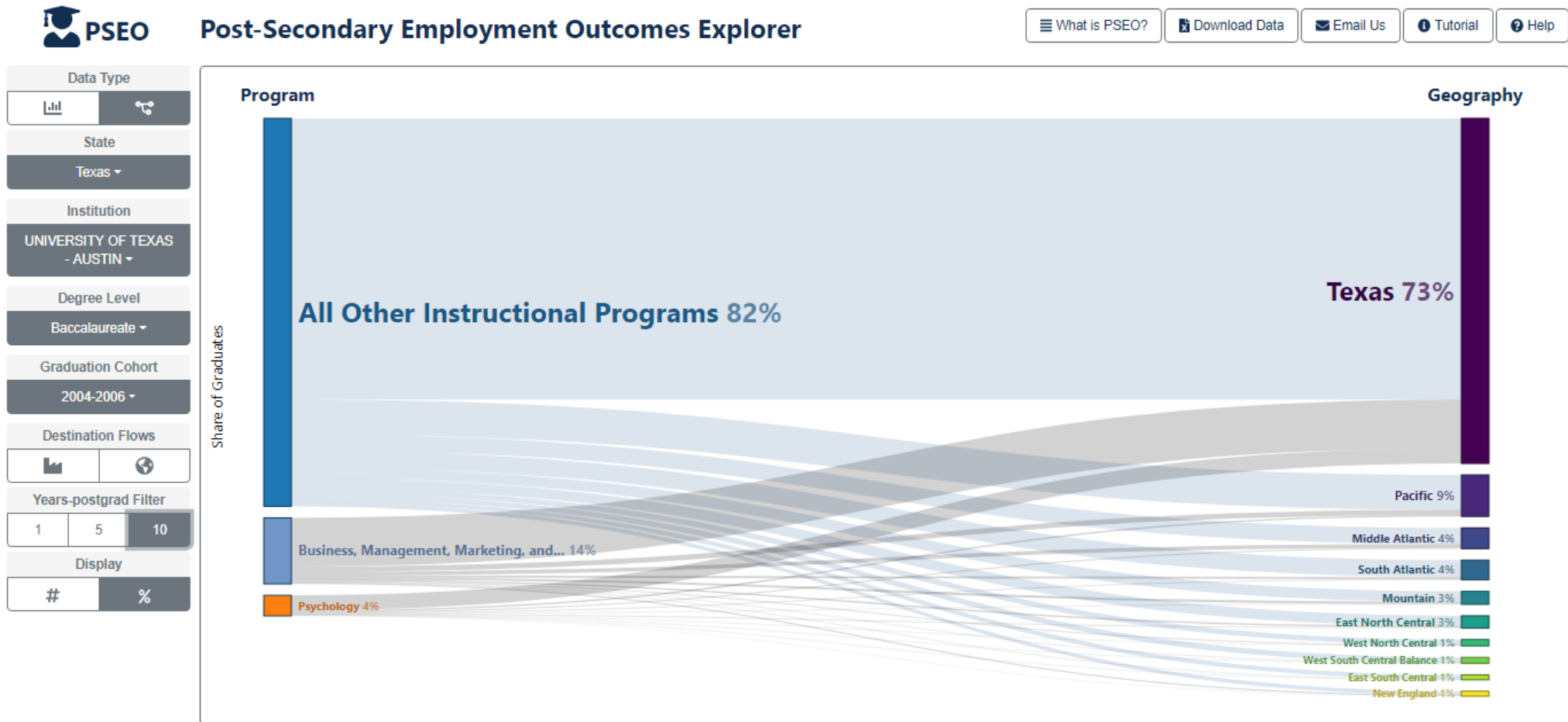
Where are UT Austin Graduates Working? 1-Year Post-Graduation



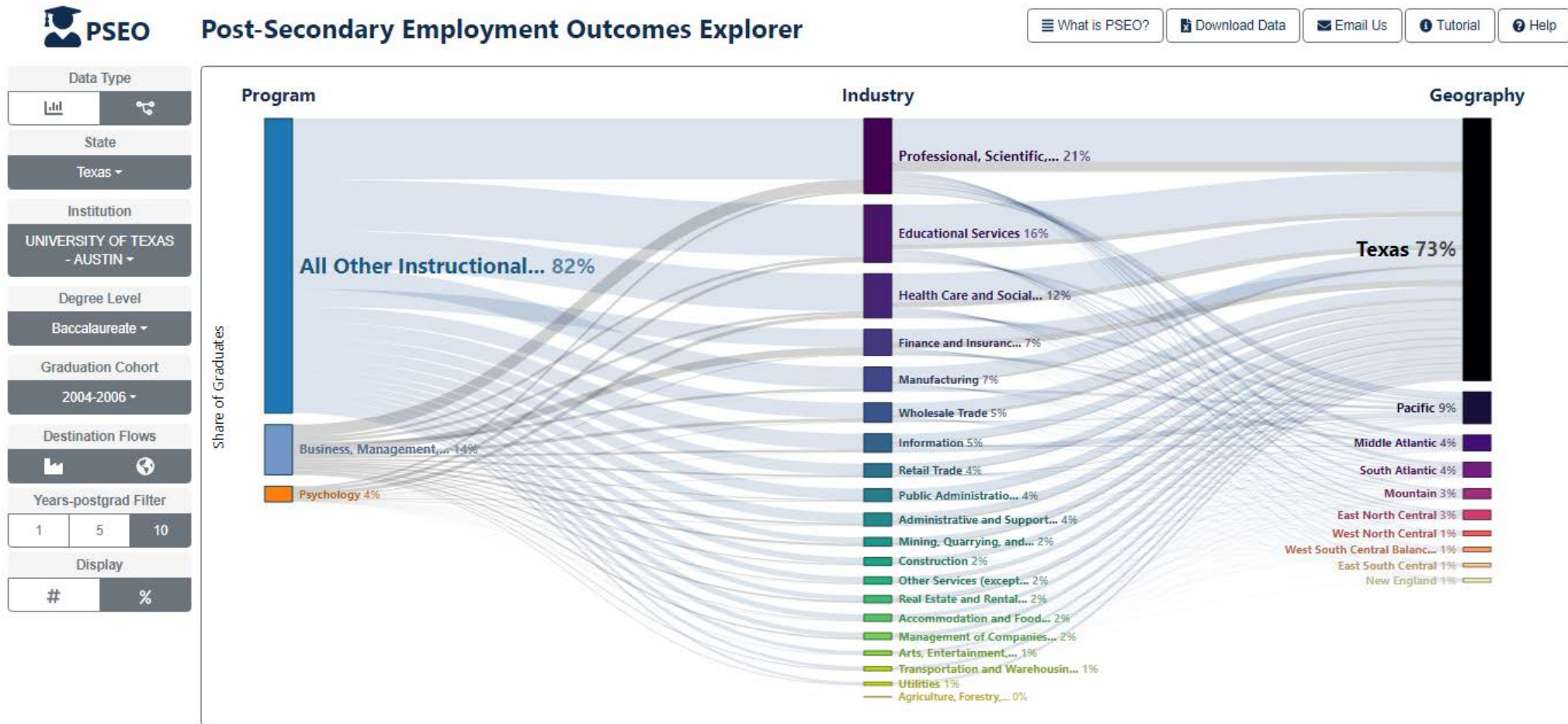
Where are UT Austin Graduates Working? 5-Years Post-Graduation



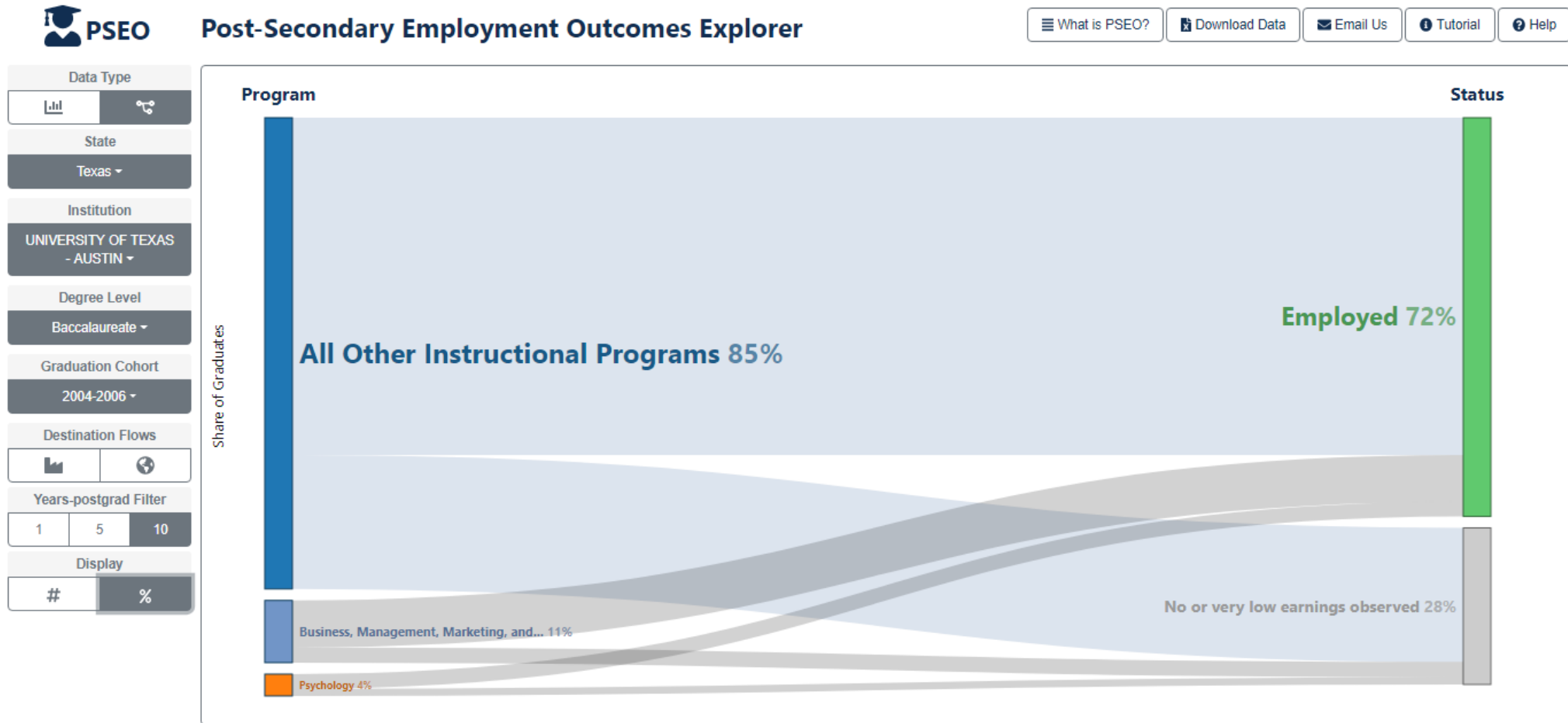
Where are UT Austin Graduates Working? 10-Years Post-Graduation



Where are UT Austin Graduates Working? 10-Years Post-Graduation

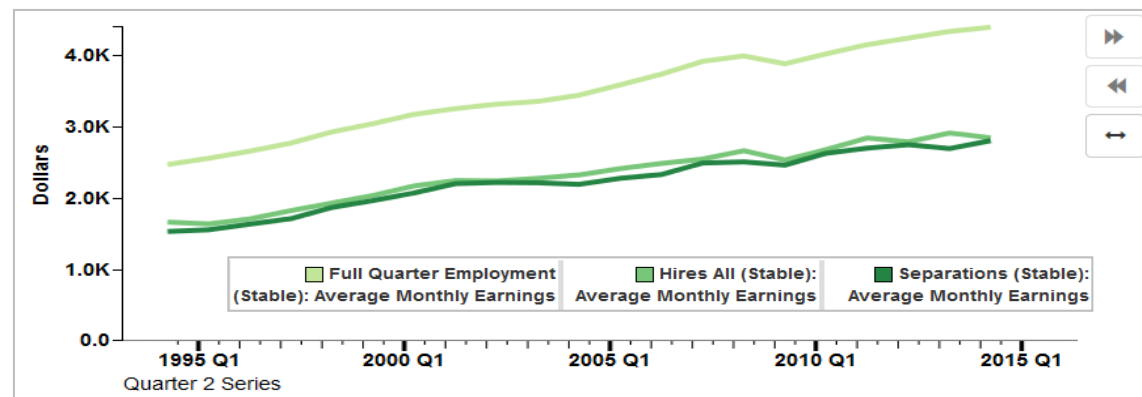


Where are UT Austin Graduates Working? 10-Years Post-Graduation



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



To sum up:

The Longitudinal Employer-Household Dynamics Program links existing business and jobs data to create new sources of local, detailed, labor market information using the following data tools:

- [QWI](#)
- [OnTheMap](#)
- [J2J Explorer](#)



Q & A and Thank You!

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