

Longitudinal Employer-Household Dynamics

State Data Center Annual Affiliate Meeting
New York State Department of Labor
May 24, 2019

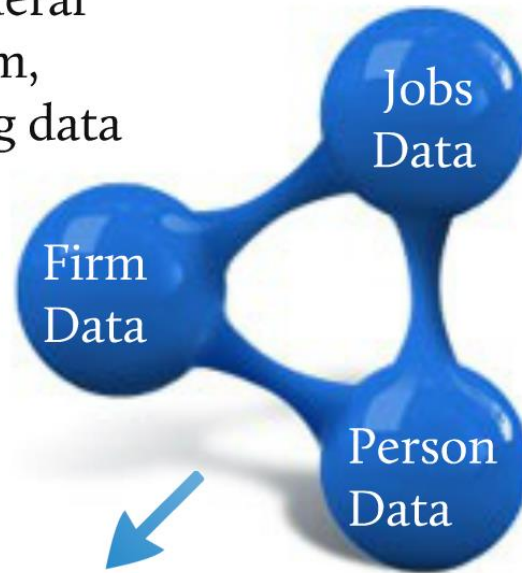
Presenter: Earlene Dowell
Longitudinal Employer-Household Dynamics Program
U.S. Census Bureau



What is Local Employment Dynamics (LED) data?

It is the set of public use statistics derived from the LEHD jobs microdata

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

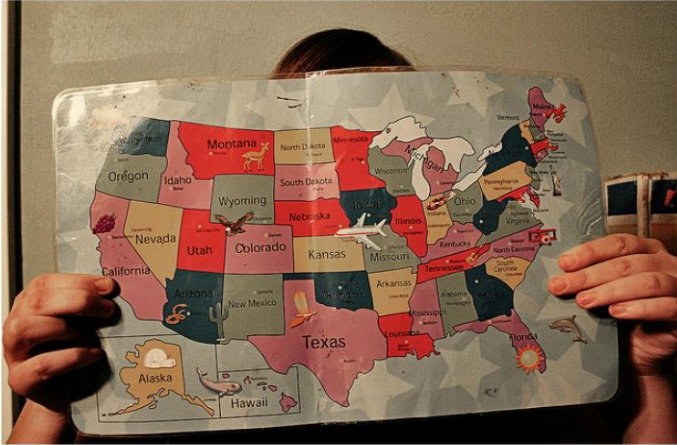


The LEHD Program at Census

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

New linked national jobs data for the U.S.

Local Employment Dynamics: Public Use Data Products



The Quarterly Workforce Indicators (QWI)

- 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)

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

OnTheMap/LEHD Origin-Destination Employment Statistics (LODES)

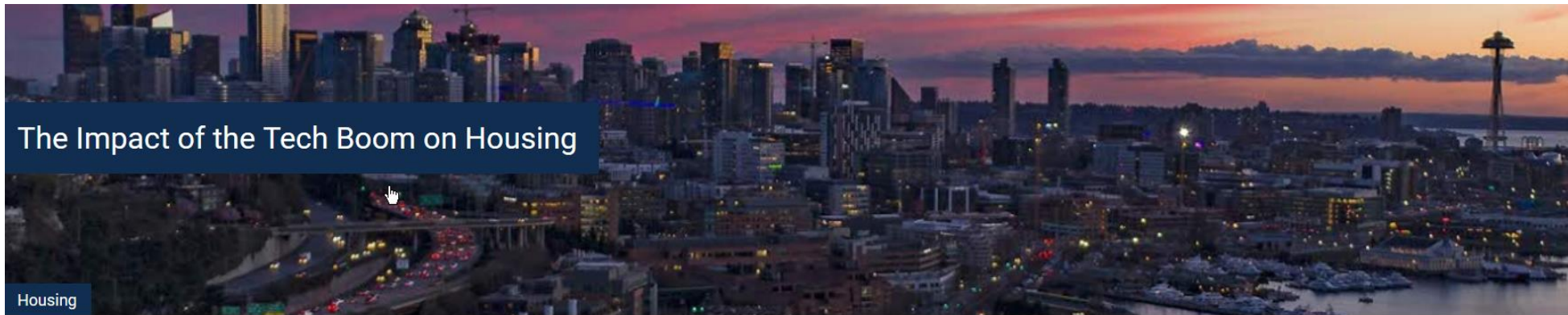
- Employment at the Census block level by where workers live and work
- Popular uses - local economic development, business site selection, and emergency planning



Post-Secondary Employment Outcomes (PSEO)

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

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

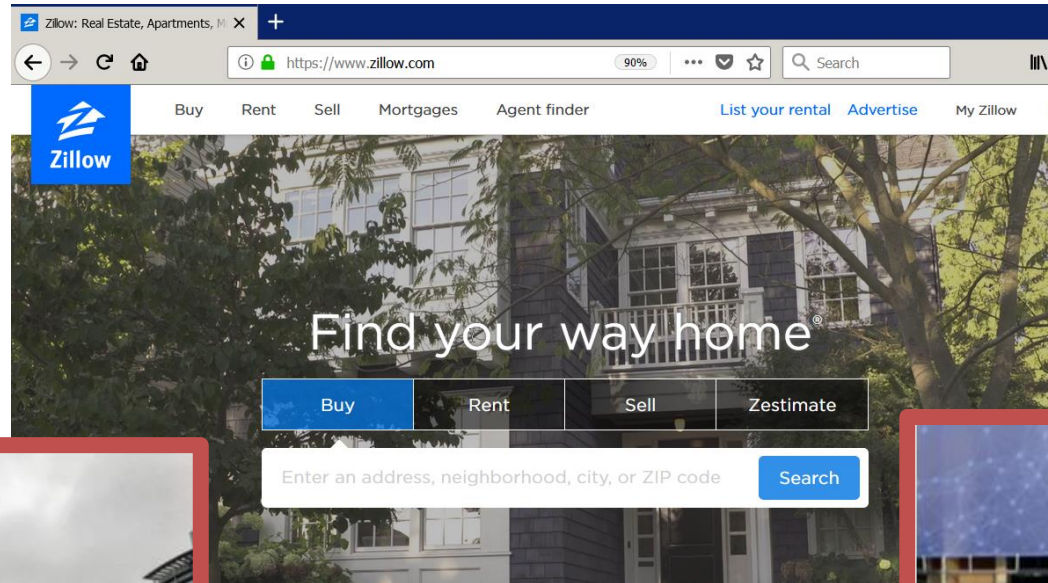
You've heard of the "Amazon Effect." Now you can see it.

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.



How Zillow Is Connecting the Dots with LEHD



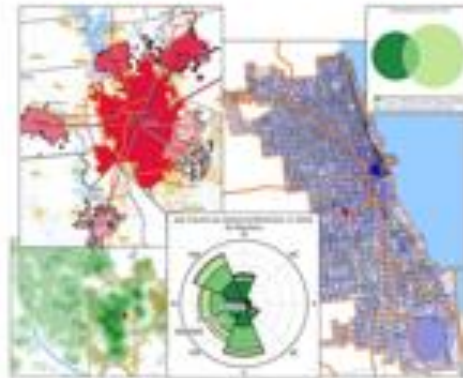
OnTheMap, LODES, and Labor Demand Shock

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

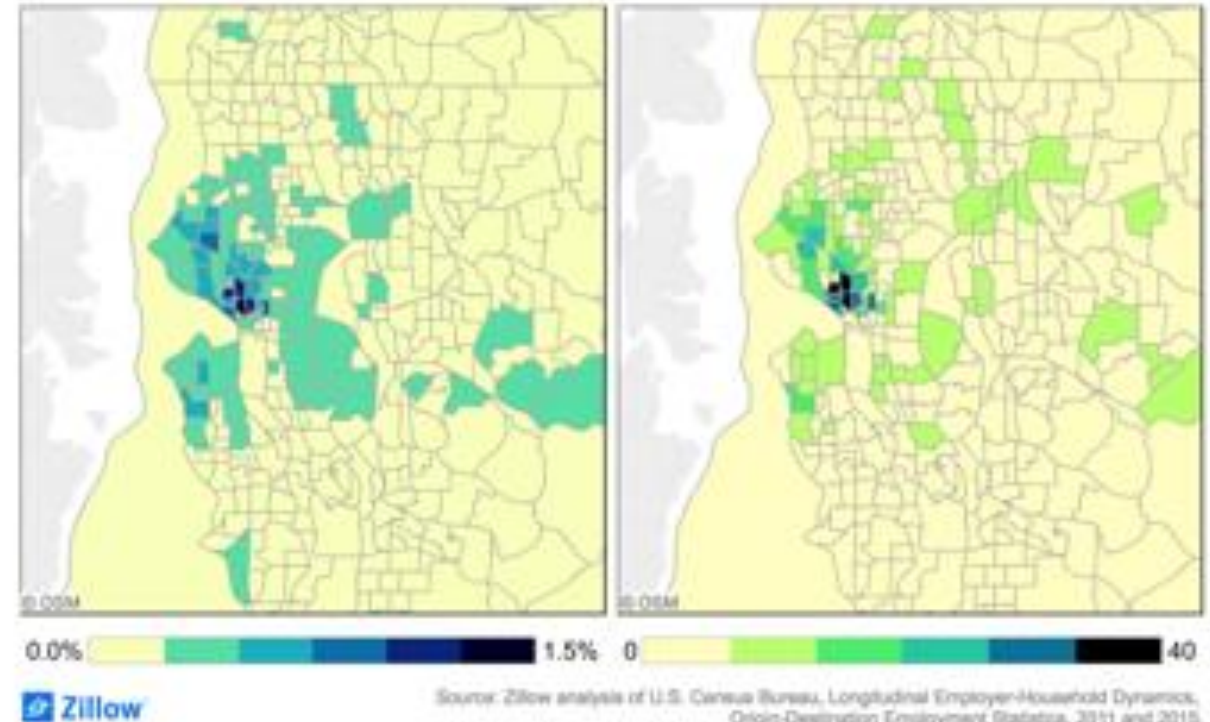


- ✓ 2002-2015 annual data
- ✓ 50 states available (plus DC)
- ✓ User-selected areas
- ✓ Based on Census Blocks
- ✓ Disclosure protection
- ✓ Flexible Inputs/Outputs

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

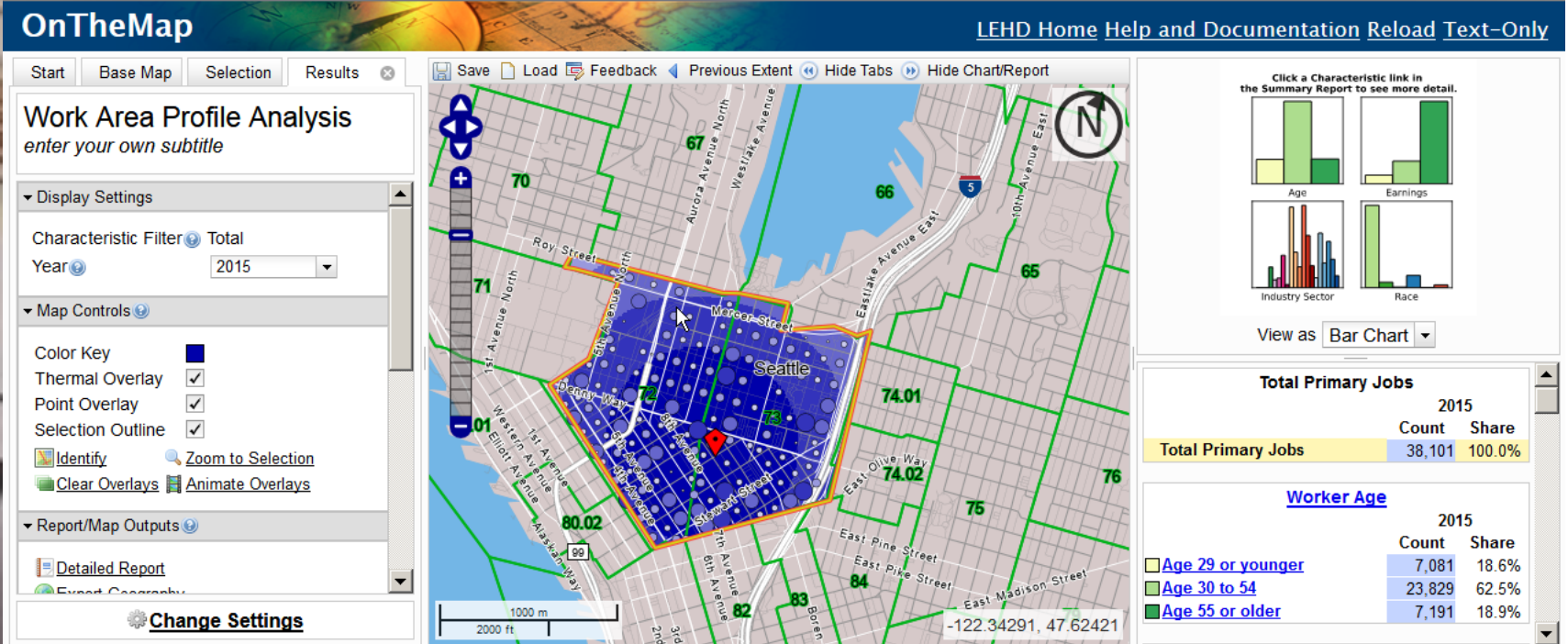
Distribution of SLU workers across census tract of residence, 2015

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




Facebook Headquarters - Menlo Park



Zillow Research

Buying/Selling Renting Policy/Politics Visuals Latest Data Markets



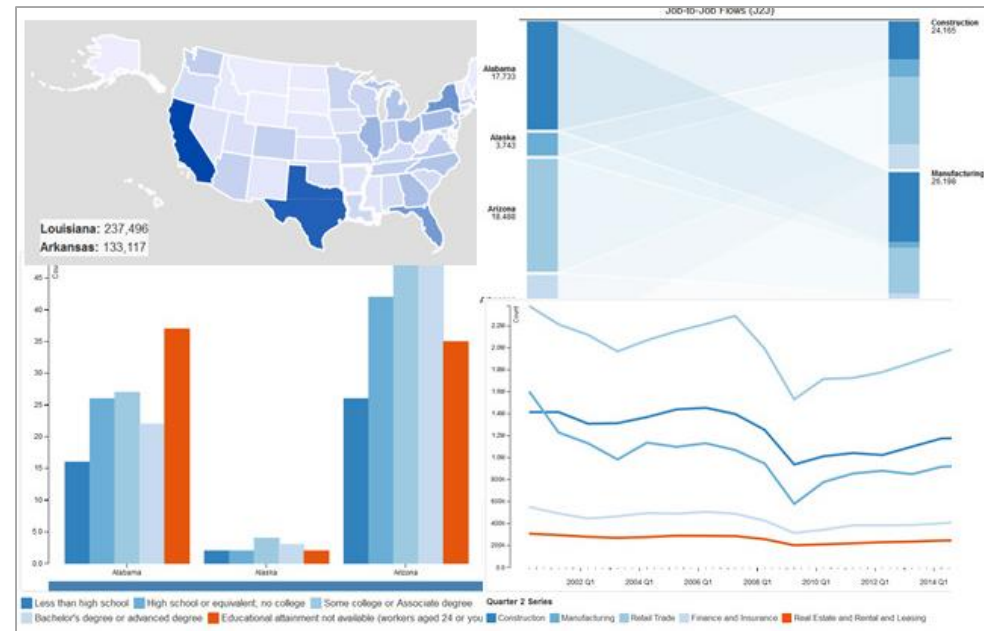
Post-IPO, Home Values Grew Faster in Areas Home to Lots of Facebook Employees

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)
Which States?	<input checked="" type="checkbox"/> California
Which Industries?	<input checked="" type="checkbox"/> Information

Analysis of Hires Over Time

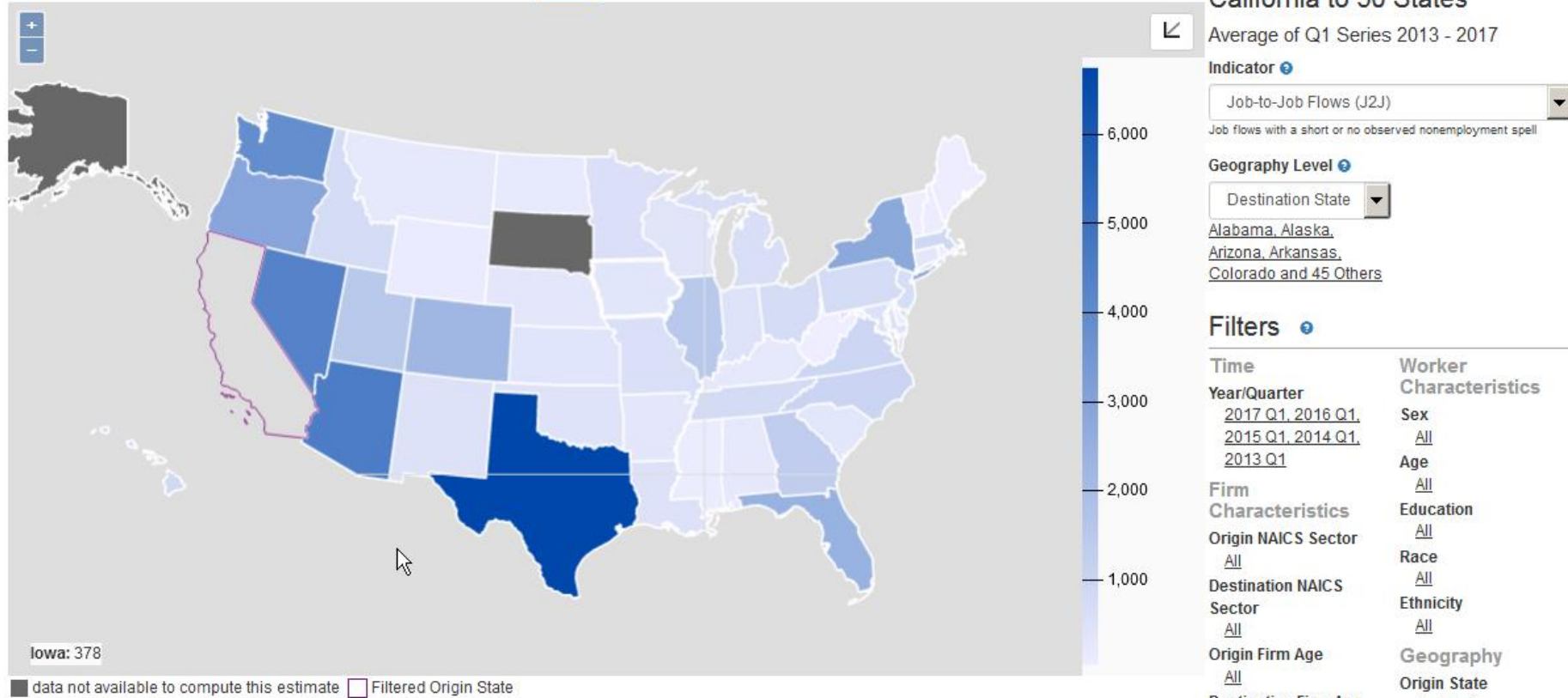
[Are hires to jobs in California Information coming from nonemployment or another job?](#)

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?](#)

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Source: U.S. Census Bureau, Center for Economic Studies, LEHD | e-mail: CES.J2J.Feedback@census.gov

J2J Explorer



Bipartite



Job-to-Job Flows from California to 20 Industries in 6 States

Average of Q1 Series 2013 - 2017

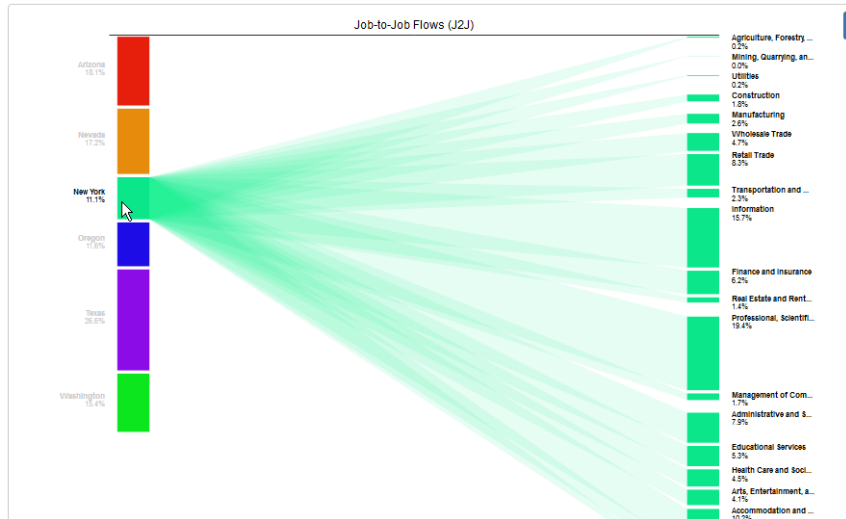
Indicator ⌵
 Job-to-Job Flows (J2J)
Job flows with a short or no observed nonemployment spell

Left Column ⌵ Right Column ⌵
 Destination State Destination NAIC

Arizona, Nevada, New York, Oregon, Texas and 1 Others
 Agriculture, Forestry, Fishing and Hunting, Mining, Quarrying, and Oil and Gas Extraction, Utilities, Construction, Manufacturing and 15 Others

Add Comparison Indicator ⌵
 None

Filters ⌵
 Time
 Year/Quarter
 2017 Q1, 2016 Q1, 2015 Q1, 2014 Q1, 2013 Q1



Job-to-Job Flows from California to 20 Industries in 6 States

Average of Q1 Series 2013 - 2017

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Filters ⌵
 Time
 Year/Quarter
 2017 Q1, 2016 Q1, 2015 Q1, 2014 Q1, 2013 Q1

Firm Characteristics
 Origin NAICS Sector
 All

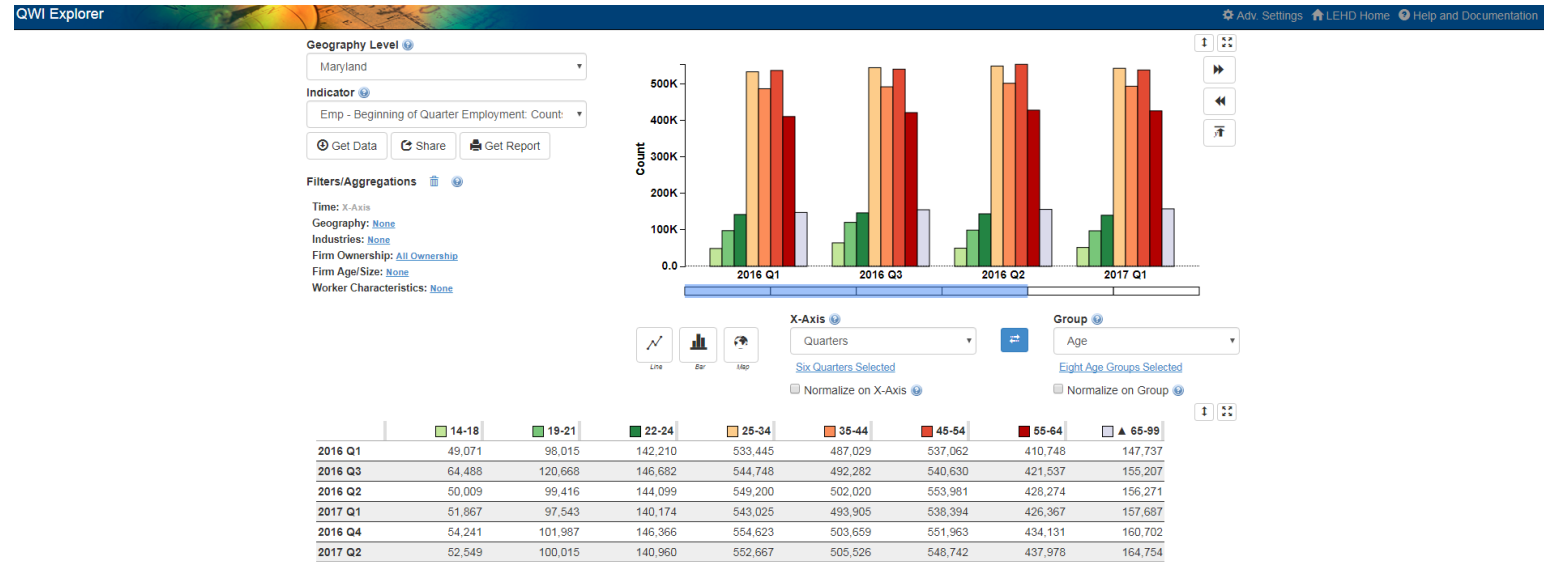


What Is Ahead for the Nation's Aging Workforce?

- 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.

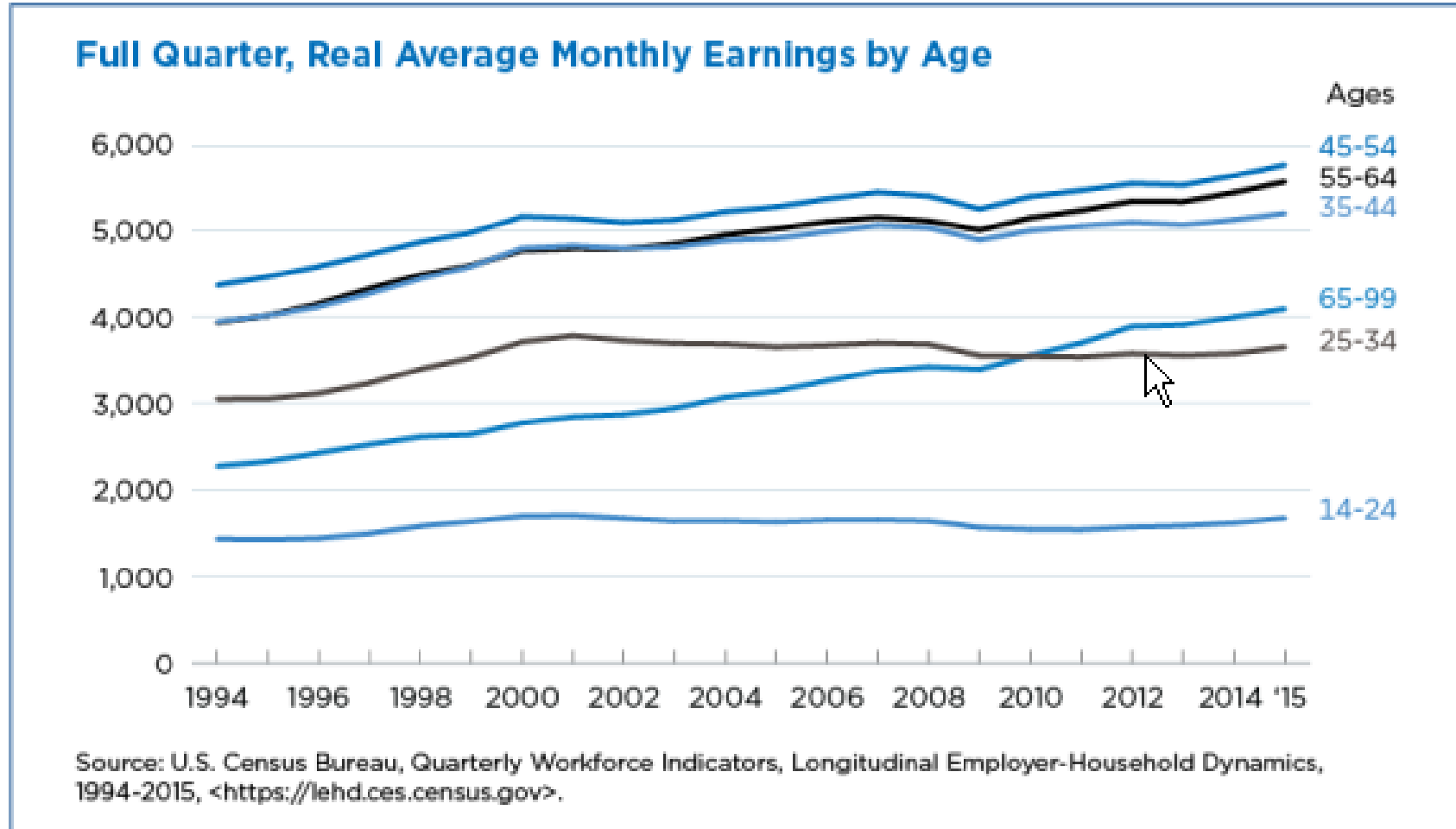
QWI Explorer

- ✓ 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

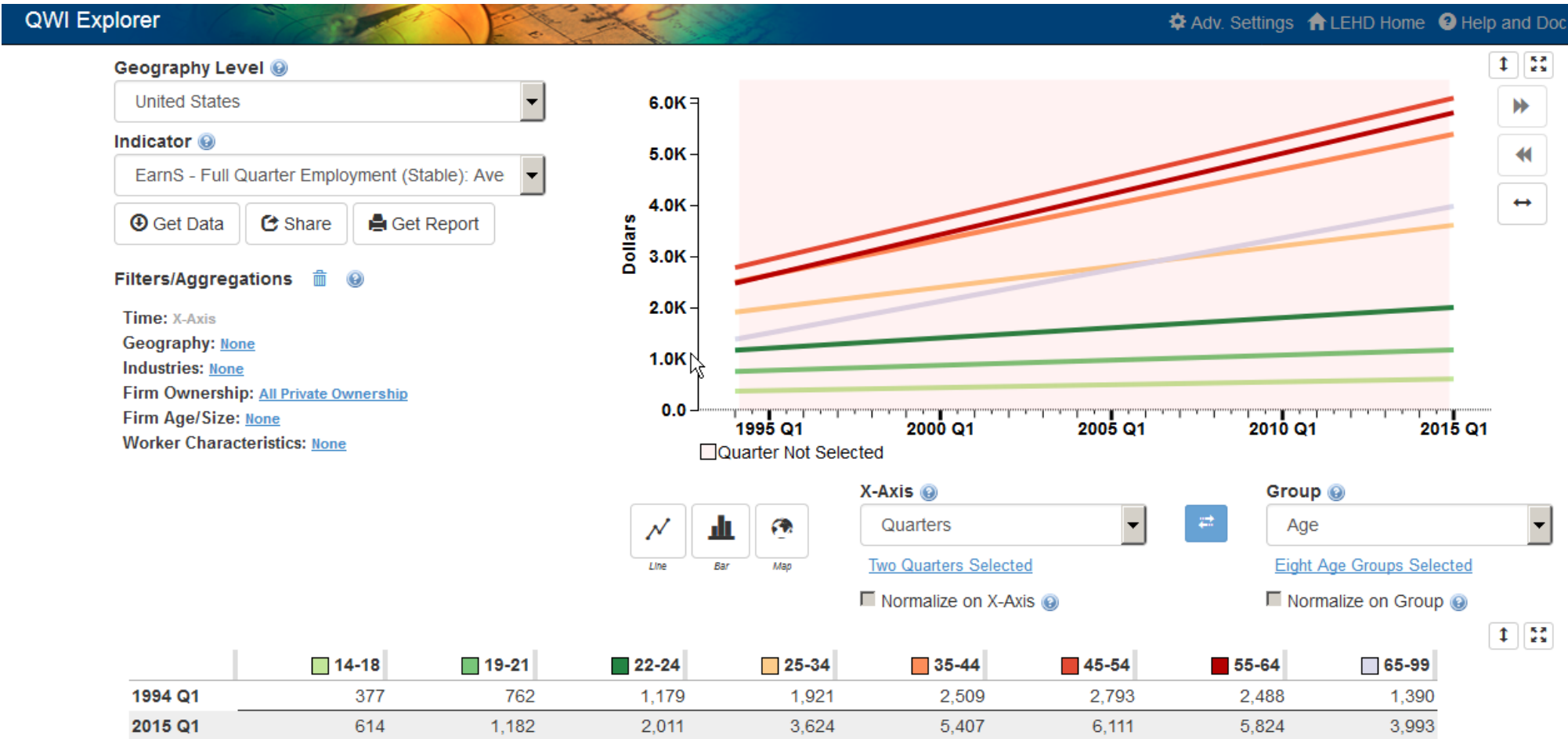


- ✓ Analyze/report by firm characteristics: NAICS classification (sector, 3, 4), firm age, and firm size
- ✓ Quarterly data very current (9-12 months old)
- ✓ National and 50 states available (plus DC)

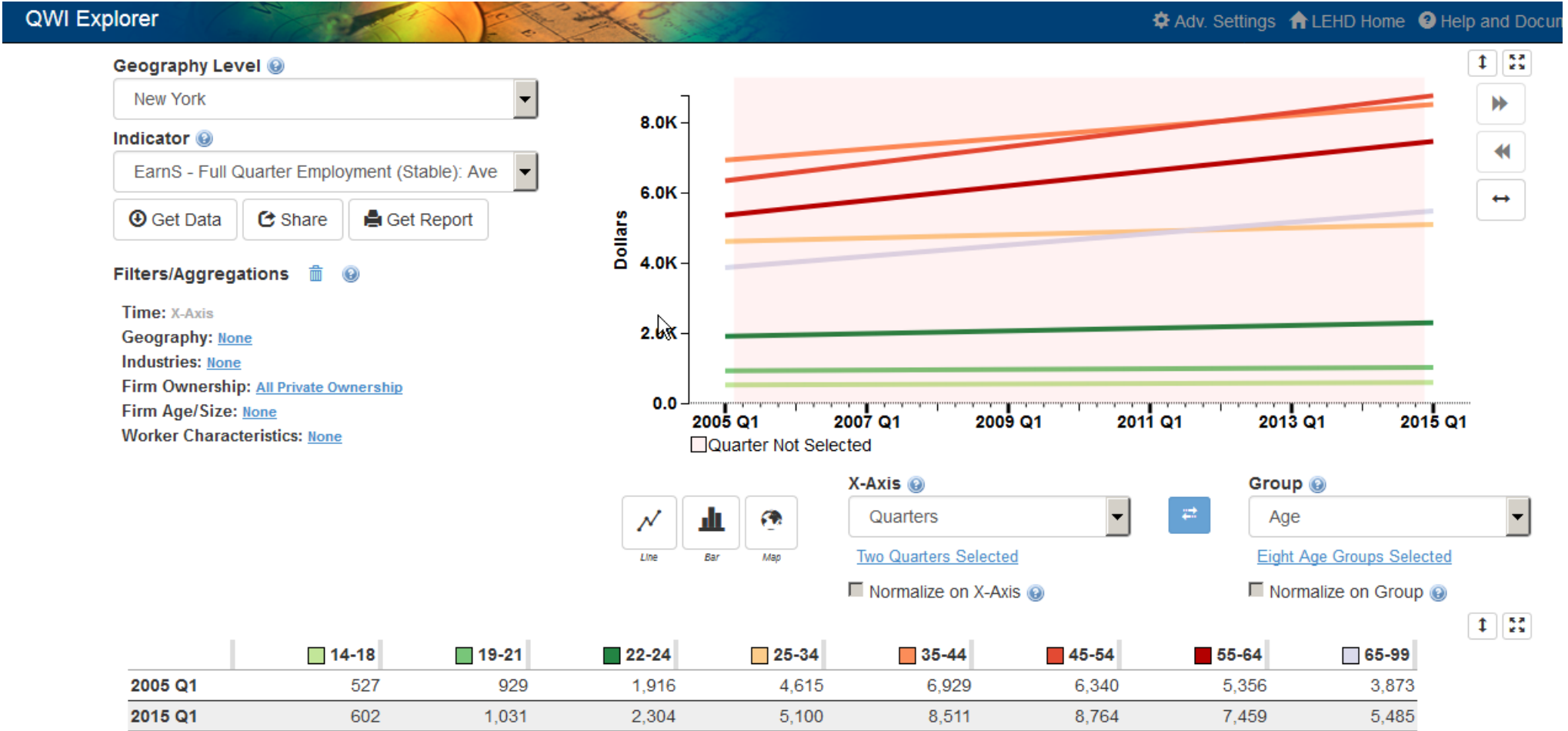
Average Monthly Earnings by Age



QWI Explorer



Earnings in New York



Industries of Older Workers

Geography Level

New York

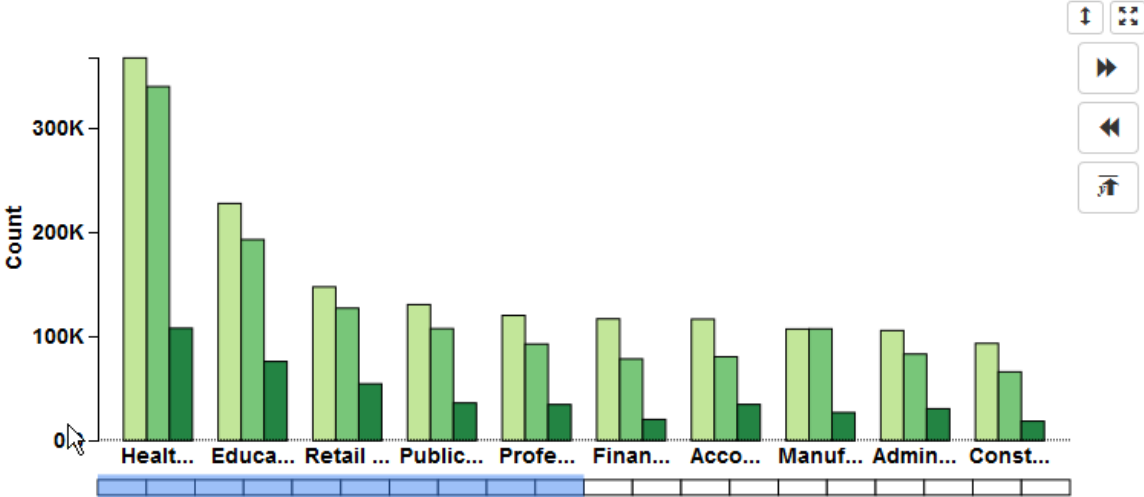
Indicator

Emp - Beginning of Quarter Employment: Coun

Get Data Share Get Report

Filters/Aggregations

Quarters: 2018 Q2
 Geography: None
 Industries: X-Axis
 Firm Ownership: All Ownership
 Firm Age/Size: None
 Worker Characteristics: None



Line Bar Map

X-Axis

NAICS Sectors

20 NAICS Sectors Selected

Normalize on X-Axis

Group

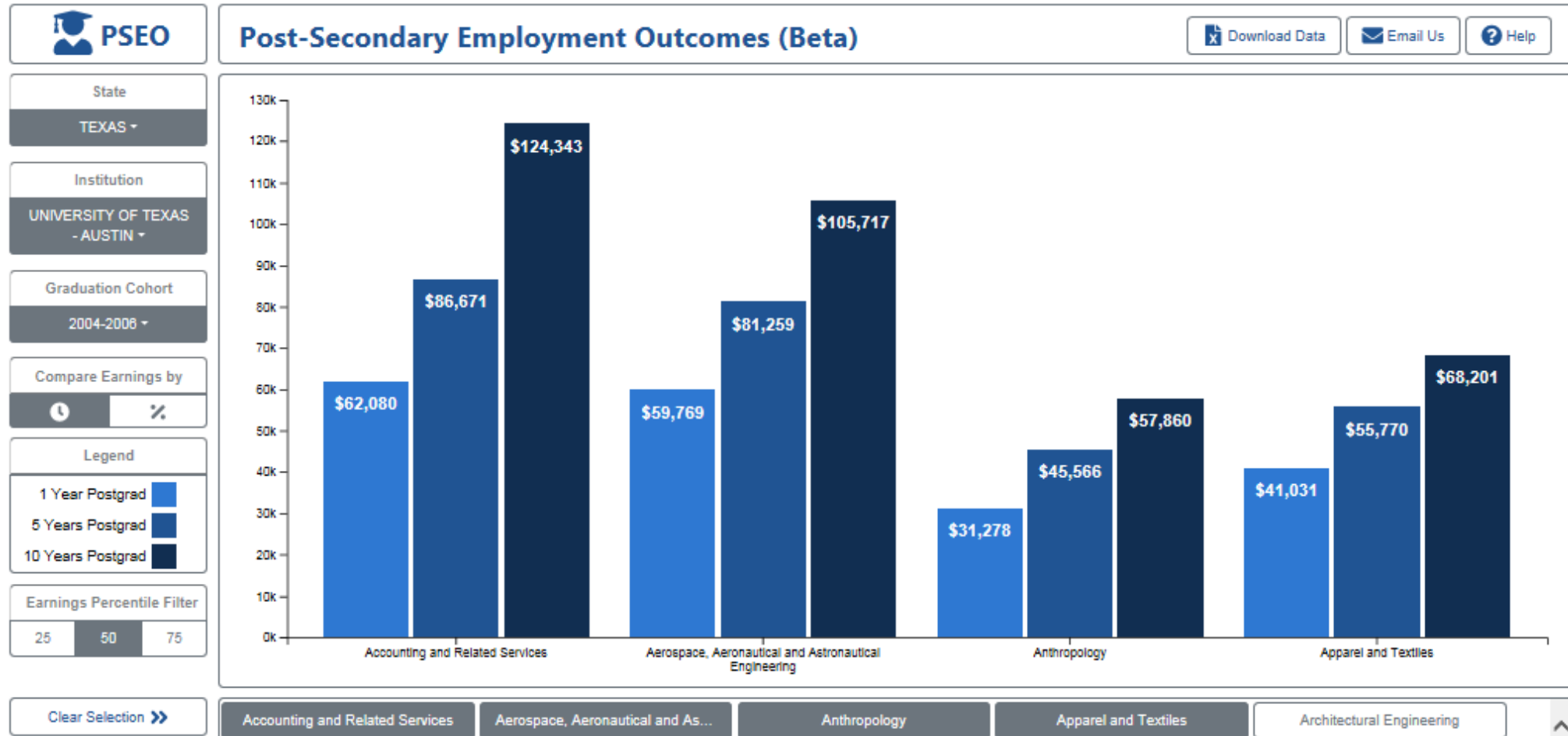
Age

Three Age Groups Selected

Normalize on Group

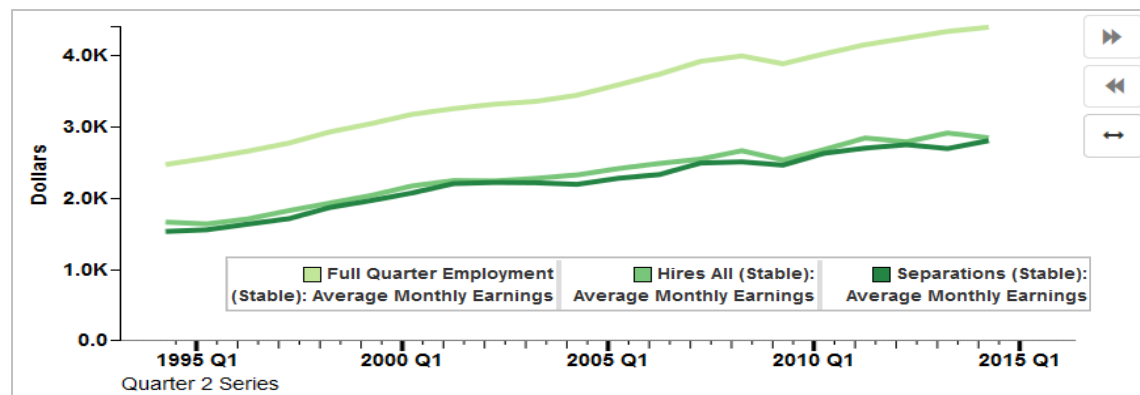
	45-54	55-64	65-99
Health Care and Social Assistance	367,346	339,864	108,001
Educational Services	227,709	193,044	76,104
Retail Trade	147,636	127,255	54,660

How Much are UT Austin Graduates Earning?



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](#)



Resources

- America Counts
 - <https://www.census.gov/library/stories/2019/04/impact-of-tech-boom-on-housing.html>
 - <https://www.census.gov/library/stories/2018/04/aging-workforce.html>
- LED Webinars
 - <https://lehd.ces.census.gov/doc/webinar/2019-02-20%20-%20Using%20LEHD%20and%20Zillow%20Data%20to%20Understand%20Housing%20Market%20Impacts.mp4>
 - <https://www.youtube.com/watch?v=AhFi59Fbzlw>
 - <https://lehd.ces.census.gov/doc/webinar/2018-10-17 - LED Webinar-- New National Earnings Data for Graduates by Institution and Major.mp4>
- Other
 - <https://www.seattletimes.com/seattle-news/data/is-the-amazon-effect-on-rising-rents-real/>

Q & A and Thank You!

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