



## What's New - Local Employment Dynamics

Updates from Census on new developments in LED products and applications

2019 LED Workshop

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U.S. Census Bureau

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 tables and figures use publically available data.

# What's New and Coming Attractions

## Updates from Census

### **Data Quality Improvements:**

- Wage Record Impute

### **New Products:**

- Post-Secondary Employment Outcomes (PSEO)
- Veterans Employment Outcomes

### **New Application Enhancements:**

- Post-Secondary Employment Outcomes Data Visualization
- Job-to-Job Flows Explorer

### **Updated Data:**

- LODES/OnTheMap Update

### **Mailing List Migration**

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# Unemployment Wage Record Imputation

## Overview

The issue: UI employer non-response or incomplete response

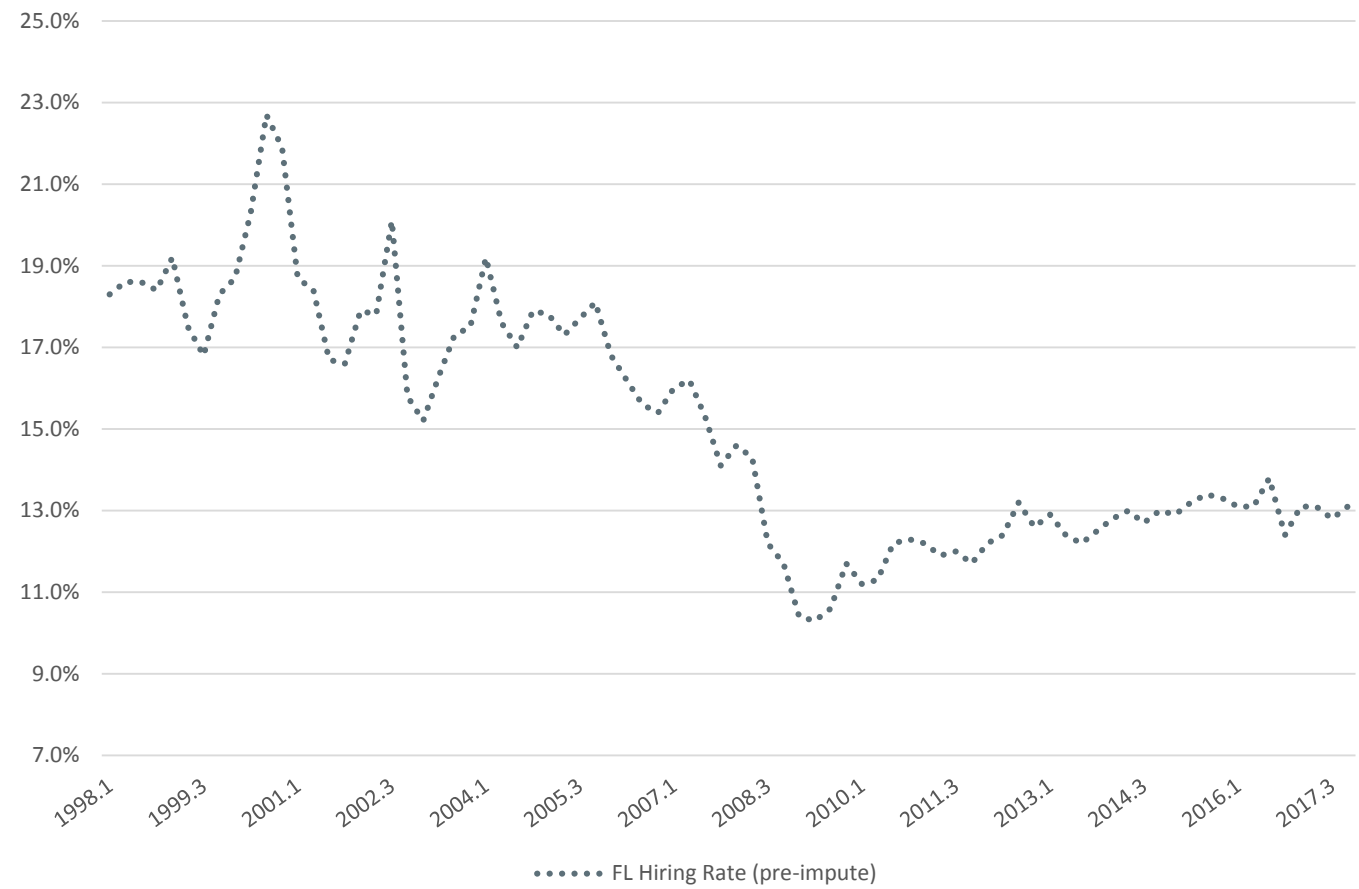
- Creates data quality problems in QWI, LODES, and J2J
- Employment undercounts
- Inflates hires and separations
- Inflates non-employment spells in J2J

We contact states when we identify a large non-reporting event - but it often cannot be fixed.

Wage record imputation implemented in January 2019.

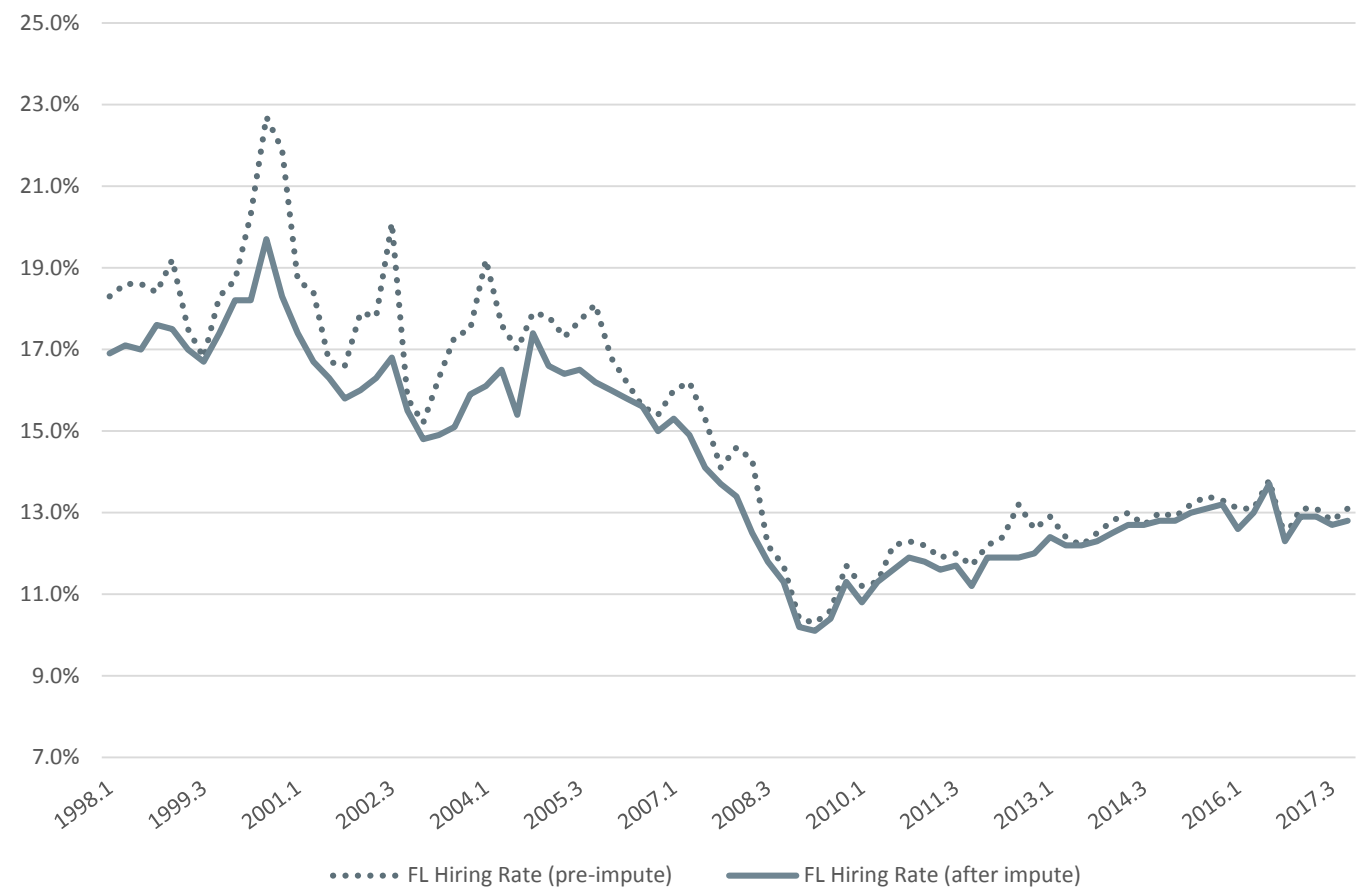
# Unemployment Wage Record Imputation

## Florida Hiring Rate (seasonally adjusted) 1998-2017



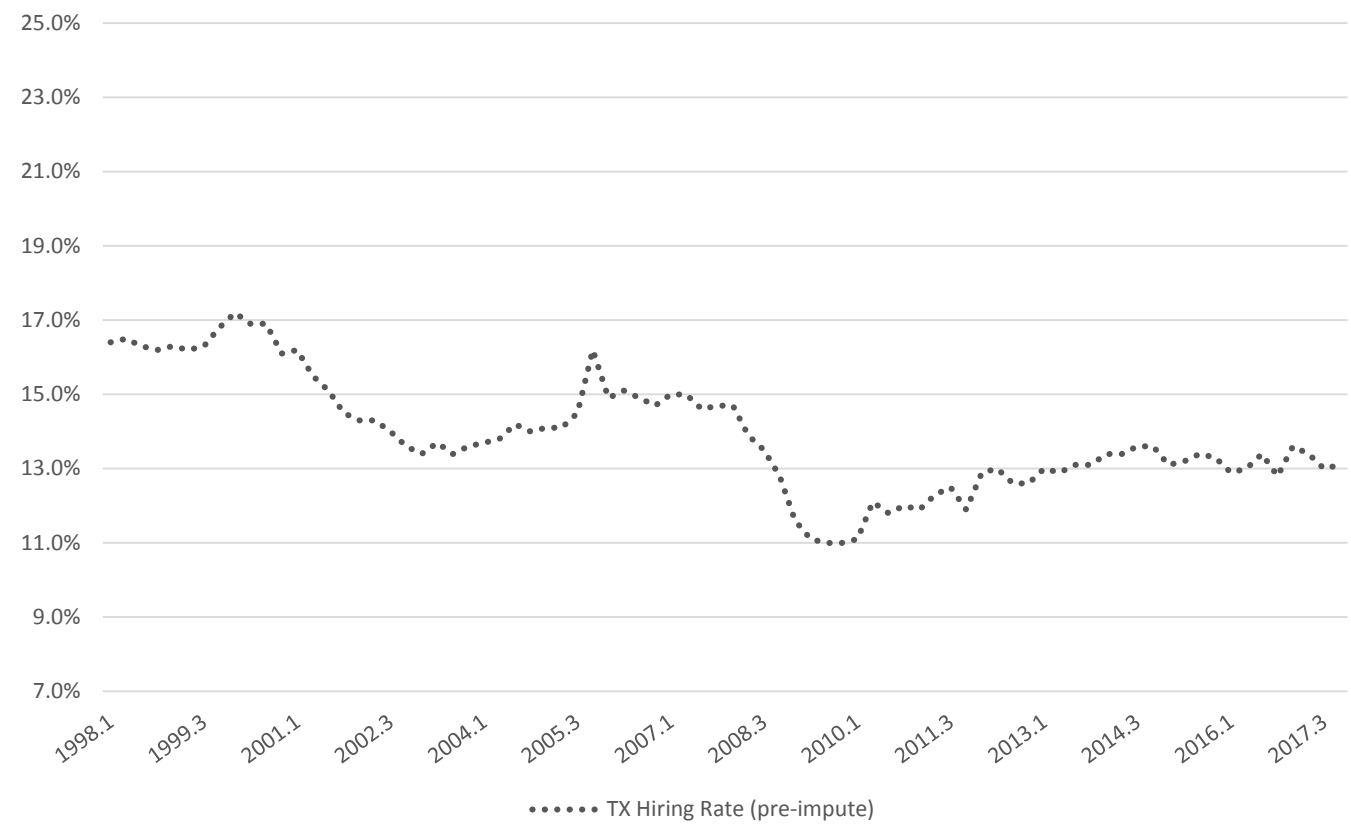
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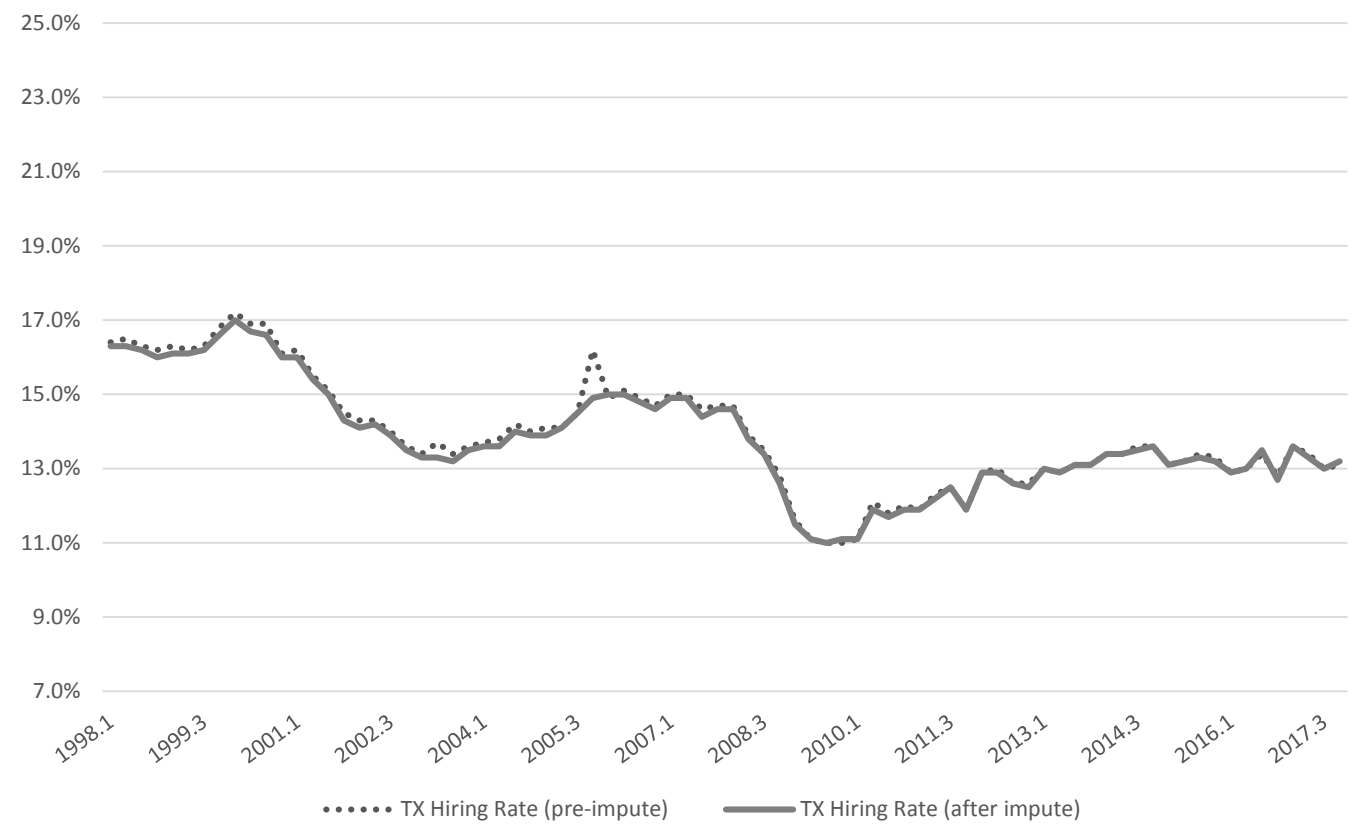
# Unemployment Wage Record Imputation

Texas Hiring Rate (seasonally adjusted) 1998-2017



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# Post-Secondary Employment Outcomes (PSEO)

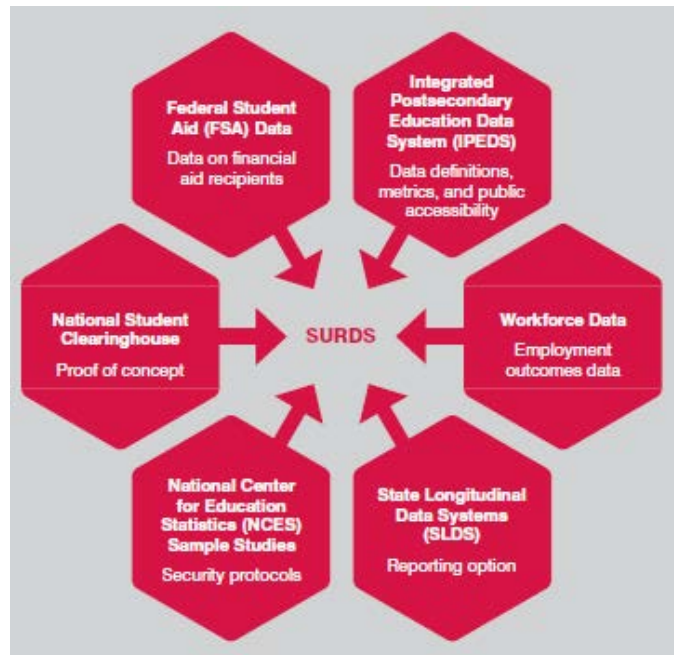
## How it got off the ground

It has long been recognized that we could substantially improve the post-secondary data infrastructure by combining existing systems.

One component of that system resides at the Census Bureau.

Workforce Data Sources:

- **U.S. Census Bureau (LEHD data)**
- IRS (W2, 1040, etc.)
- state Unemployment Insurance wage records



The University of Texas system undertook a seven-year effort to get national earnings data for their graduates. They approached Census last, after someone told them about LEHD at a conference.

After many talks, we signed an agreement in 2017 to jointly develop what became the PSEO.

UT PSEO data was released to the public in March 2018.



# Post-Secondary Employment Outcomes (PSEO)

A new collaboration between university systems and the Census Bureau

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.

Goal:

- Provide students and parents better data on the return on investment to post-secondary degrees.

The PSEO provides:

- 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles of annual earnings for college and university graduates.
- Employment by industry and region of the country (**New**: released August 8, 2019).
- By degree level, degree major, and post-secondary institution.
- One year, five years, and 10 years after graduation.

# Post-Secondary Employment Outcomes (PSEO)

## Expansion of Coverage

### Current PSEO partners:

- The University of Texas system (2017),
- Colorado Department of Higher Education (2017),
- University of Michigan, Ann Arbor; University of Wisconsin, Madison (2018).

### Negotiating MOUs with:

- Ohio Department of Higher Education,
- State Council of Higher Education for Virginia,
- Texas Higher Education Coordinating Board,
- Arizona Board of Regents,
- New York SUNY and CUNY systems,
- Indiana Commission of Higher Education,
- Utah System of Higher Education.

New related product planned release later in 2019

Where do veterans go after leaving service?

**Veterans Employment Outcomes (VEO):**

- Partnership with West Point
- ‘PSEO’-like statistics for Army veterans, 1, 5, and 10 years after exit.

We would like your input:

- Will be previewing the product in an afternoon breakout session – please attend if interested in these data

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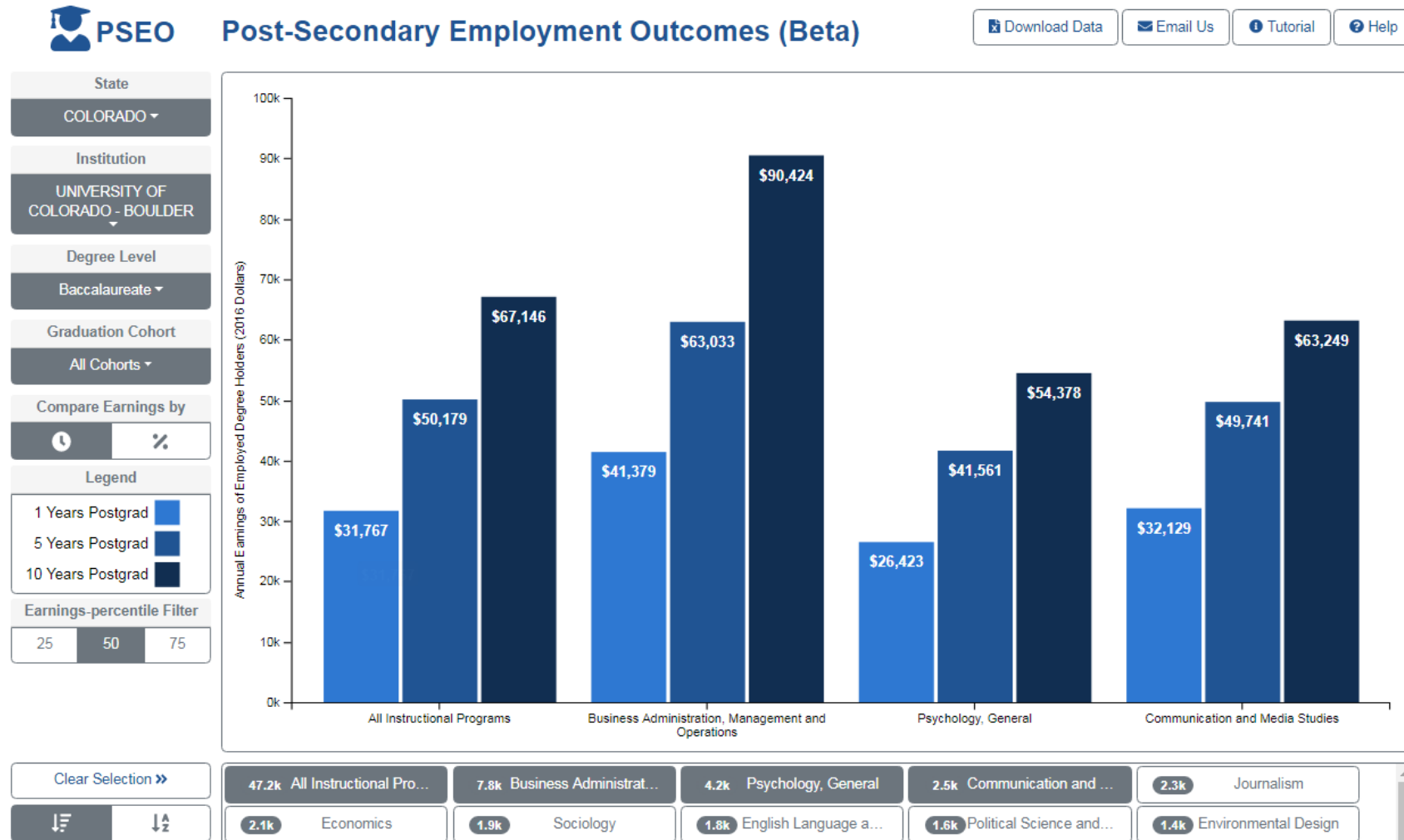
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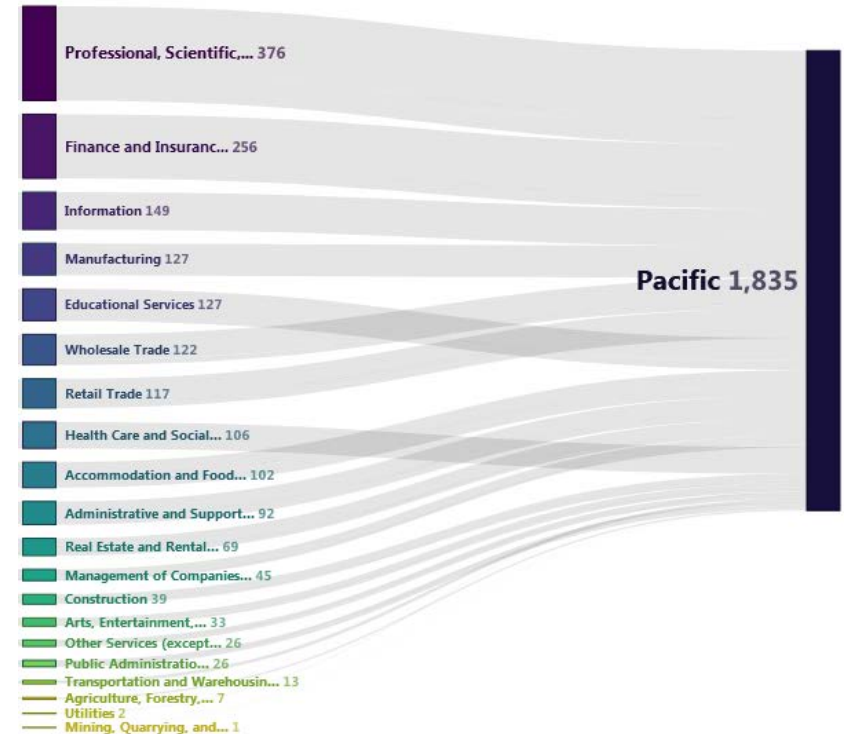
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# Visualizing Post-Secondary Employment Outcomes (PSEO)



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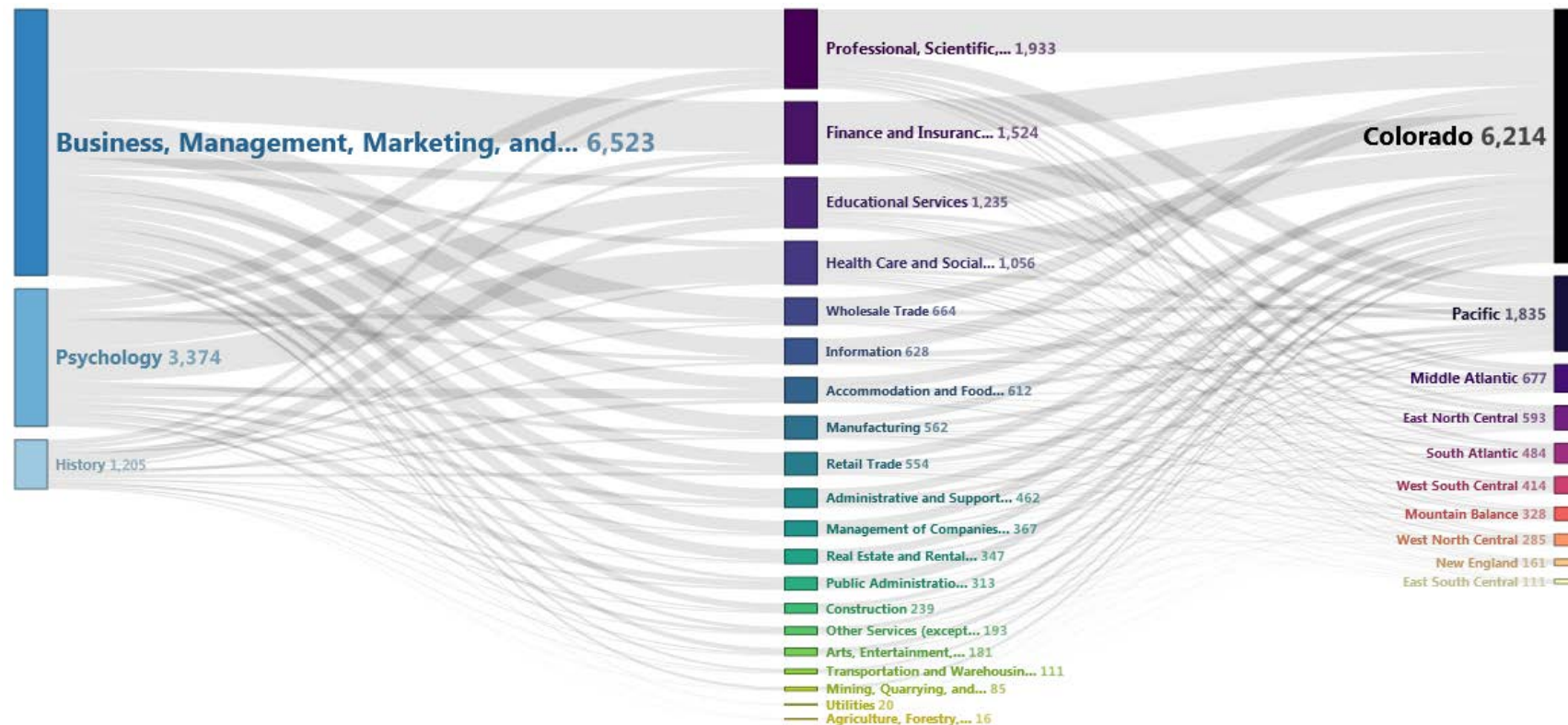
- PSEO Employment Flows data released in early August 2019
- Visualization Module for PSEO Earnings updated to allow sorting by degree holder counts
- Visualization Module for PSEO Employment Flows currently under development
- Uses Sankey Diagram to show proportional flows between degree types, destination geographies, and destination industries
- Developed using D3, nodejs, PostgreSQL, html/javascript





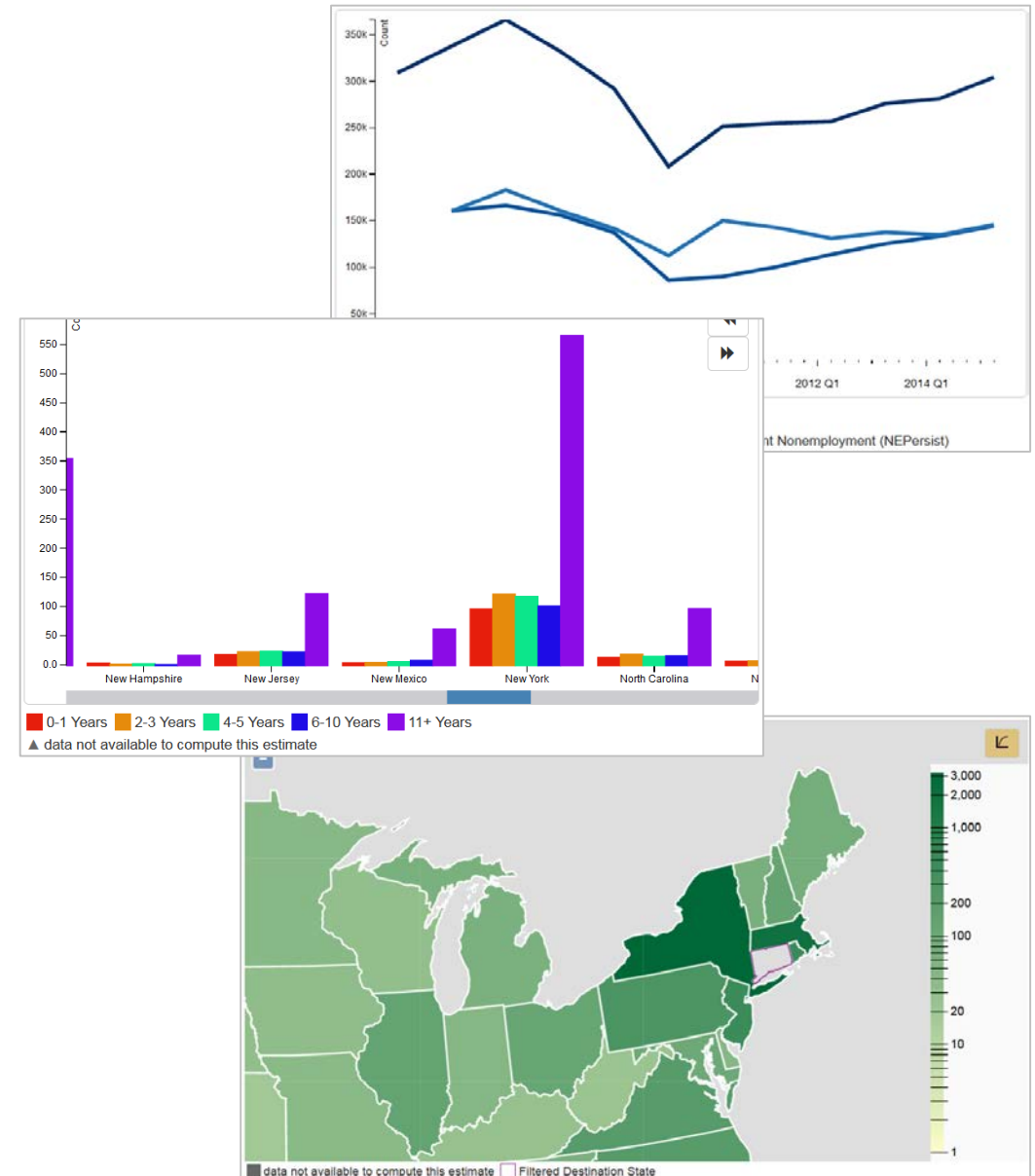
# Visualizing Post-Secondary Employment Outcomes (PSEO)

## Employment Flows Live Demo!



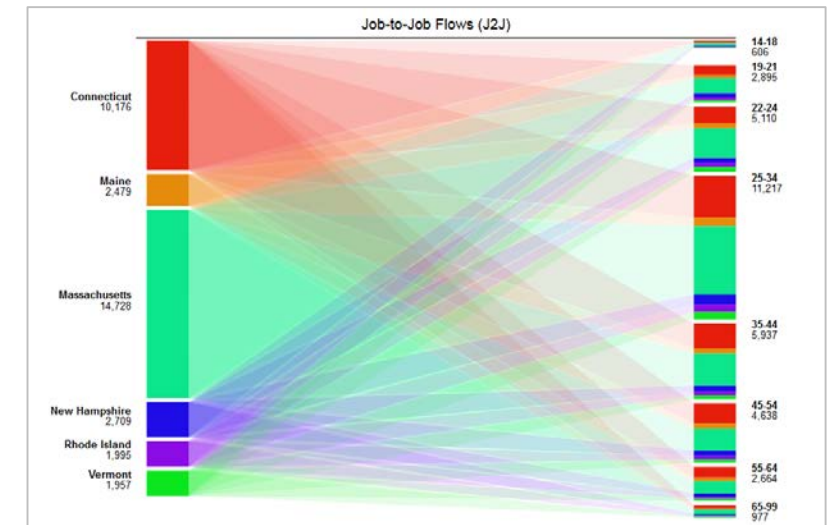
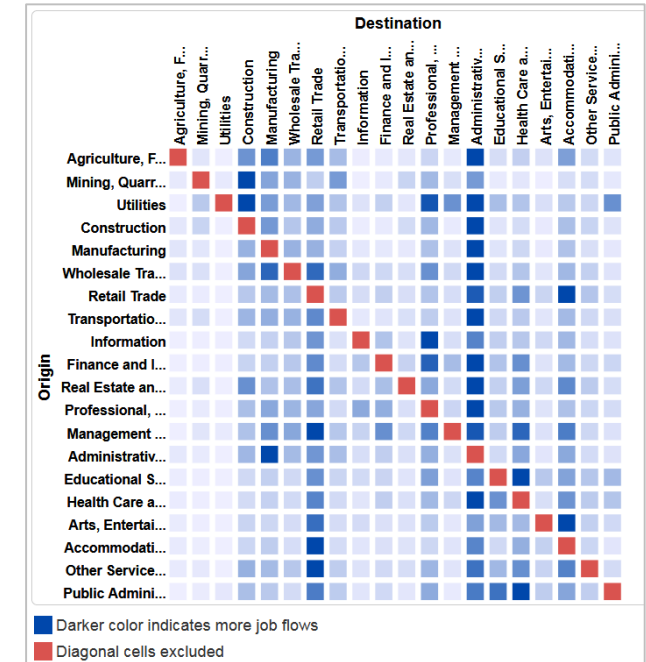
# Job-to-Job Flows (J2J)

- Job-to-Job Flows (J2J) are national statistics on **job mobility** in the U.S.
- With these data, users can learn more about workers entering and exiting nonemployment as well as those moving from one job to another.
- It fills an important gap that other available data sources do not currently cover.



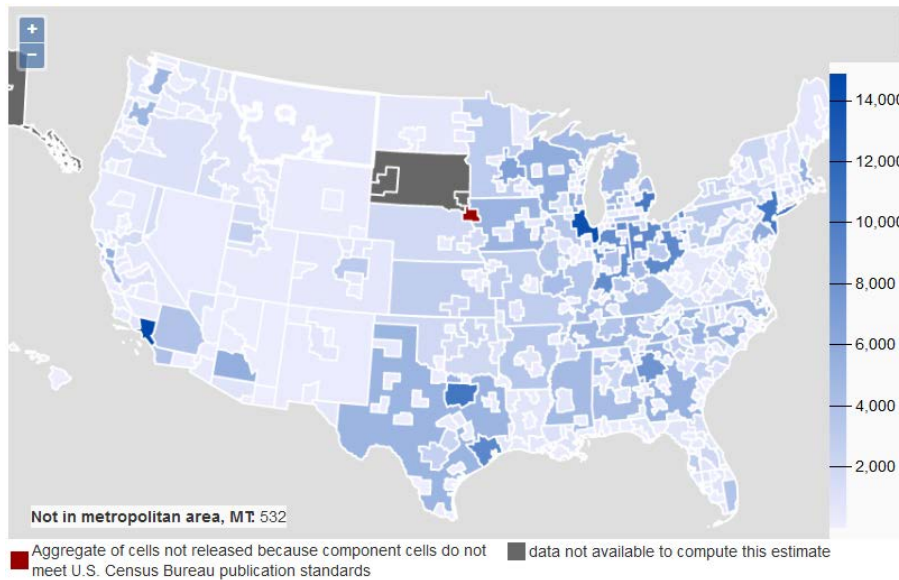
# J2J Explorer (Beta)

- Six Visualization Modules with a flexible dashboard interface
- Trace worker movements through industries, geographic labor markets, and to/from employment
- Analyze/report by OD geographies at the state and national level
- Analyze/report by OD firm characteristics (i.e. NAICS Sector, firm age, and firm size)
- Analyze/report by worker demographics: age, race, ethnicity, educational attainment, and sex
- Export reports to Excel or CSV
- Data updated every quarter



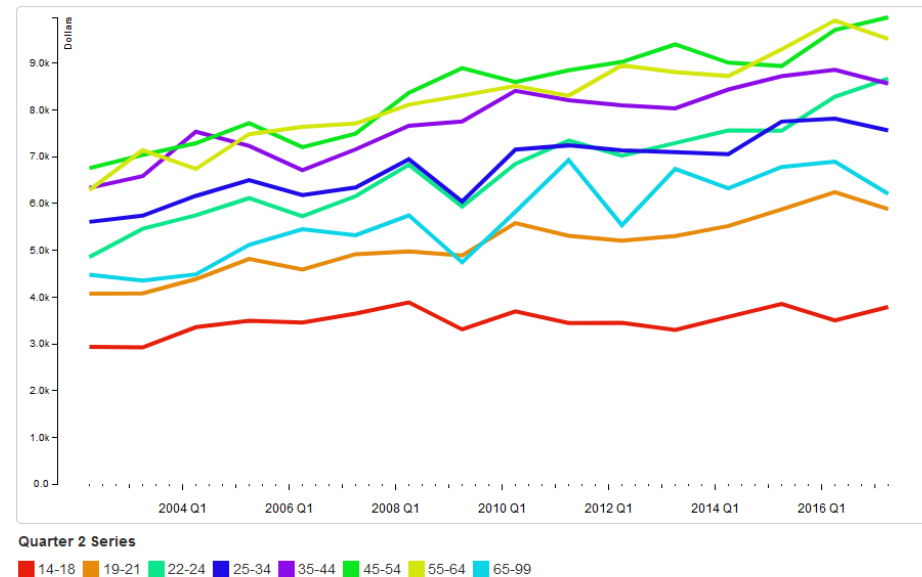
# Coming Soon in J2J Explorer 1.0

## *Tabulations by Metro Area*



Job-to-Job Flows to Manufacturing in 430 Metro Areas

## *Earnings Indicators*



Earnings following Hires from Persistent Nonemployment to Manufacturing in Alabama by Year/Quarter and Age

# Coming Soon in J2J Explorer 1.0

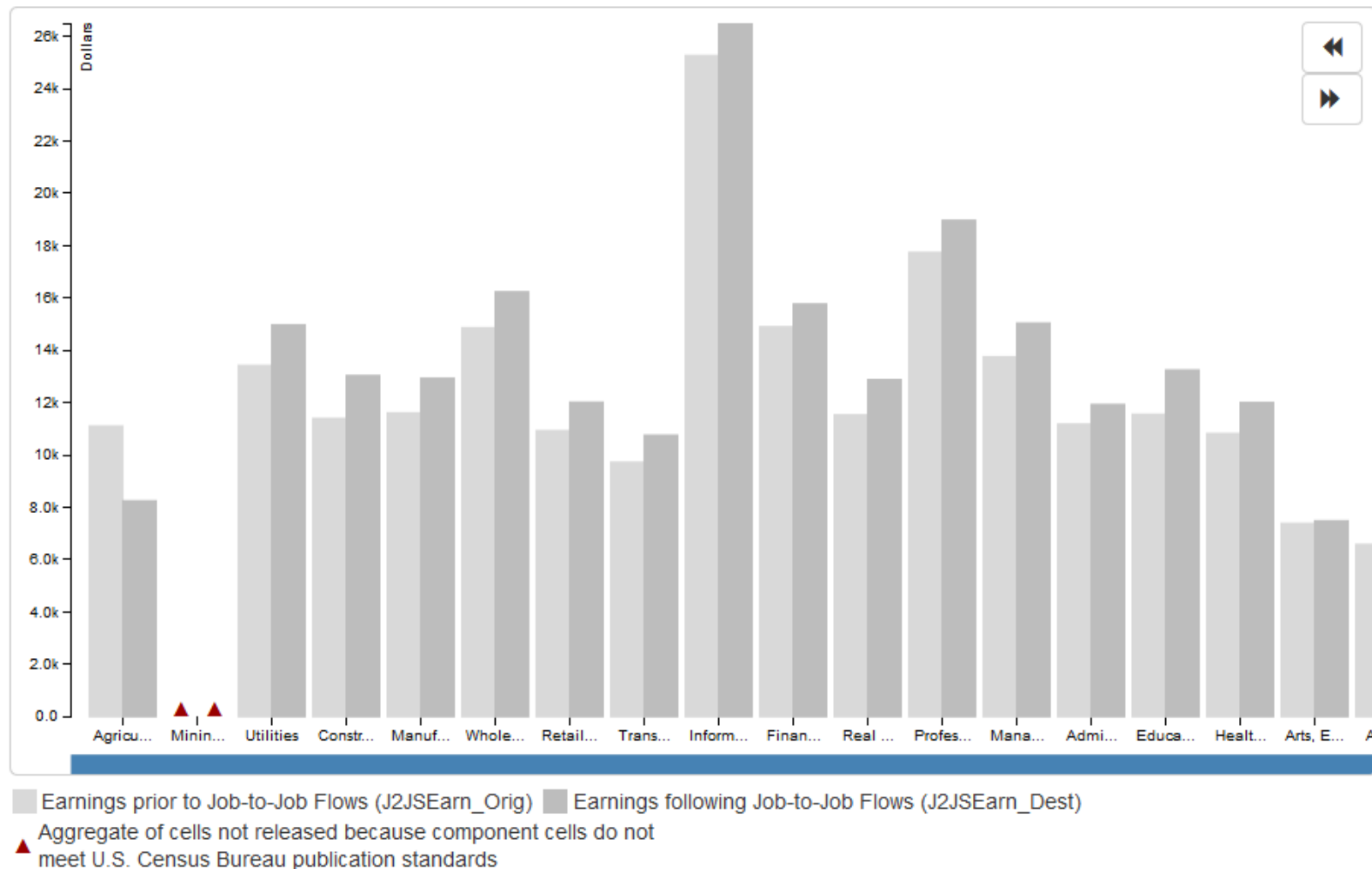
Other updates (in addition to Metro Areas and Earnings):

- There are now 59 measures!! (I know, it's too many)
- Ability to cross Worker Characteristics with Firm Characteristics
- Rankings and Normalization Functionality
- Scheduled for release in October 2019

NAICS Sector ▾	Male	Female
Public Administration	11,540	11,152
Other Services (except Public Administration)	11,154	8,999
Accommodation and Food Services	6,268	5,078
Arts, Entertainment, and Recreation	7,649	6,504
Health Care and Social Assistance	14,174	10,922
Educational Services	11,306	8,772
Administrative and Support and Waste Management and Remediation Services	11,316	9,372
Management of Companies and Enterprises	29,719	17,053

Earnings following Job-to-Job Flows to 20 Industries in Maryland by Sex  
2017 Q4

# Coming Soon in J2J Explorer 1.0



A Comparison of Earnings Indicators for Job Flows from Seattle-Tacoma-Bellevue, WA to 20 Industries in Seattle-Tacoma-Bellevue, WA filtered by Sex

Average of 2017 Q1 - 2017 Q4



# Coming Soon in J2J Explorer 1.0

Metro Area	Agriculture, Forestry, Fishing and Hunting	Mining, Quarrying, and Oil and Gas Extraction	Utilities	Construction	Manufacturing	Wholesale Trade	Retail Trade
Ann Arbor, MI	50	1	14	290	561	204	1,103
Battle Creek, MI	23	3	2	178	399	83	381
Bay City, MI	14	1	3	96	162	60	318
Detroit-Warren-Dearborn, MI	370	63	215	5,497	9,387	3,051	14,453
Flint, MI	31	9	1	415	436	266	1,348
Grand Rapids-Wyoming, MI	804	6	47	1,360	3,877	1,329	3,249
Jackson, MI	11	6	87	136	342	76	439
Kalamazoo-Portage, MI	462	1	17	467	735	249	994
Lansing-East Lansing, MI	139	8	13	592	639	229	1,539



Metro Area	Agriculture, Forestry, Fishing and Hunting	Mining, Quarrying, and Oil and Gas Extraction	Utilities	Construction	Manufacturing	Wholesale Trade	Retail Trade
Niles-Benton Harbor, MI	0.193	0.061	0.015	0.065	0.044	0.060	0.084
Not in metropolitan area, MI	0.115	0.046	0.022	0.089	0.042	0.047	0.076
Bay City, MI	0.090	0.100	0.035	0.088	0.042	0.047	0.071
Ann Arbor, MI	0.241	0.042	0.029	0.072	0.040	0.037	0.077
Detroit-Warren-Dearborn, MI	0.177	0.054	0.029	0.077	0.037	0.036	0.073
Muskegon, MI	0.130	0.076	0.017	0.071	0.037	0.032	0.070
Flint, MI	0.134	0.250	0.054	0.080	0.035	0.052	0.071
Lansing-East Lansing, MI	0.114	0.052	0.017	0.082	0.035	0.038	0.080

Separations to Nonemployment from 20 Industries in 15 Metro Areas

Average of 2017 Q1 - 2017 Q4

Separations to Nonemployment from 20 Industries in Top 10 Metro Areas

Average of 2017 Q1 - 2017 Q4; (Normalized)

## Advanced Functions

### Normalize

Labor Market Size

### Ranking

Top 10 Origin Metro Areas as ordered by Manufacturing

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## LODES/OnTheMap Update

Big News: **LODES for 2016 and 2017 were released last week.**

- Both in OnTheMap and raw data files.

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 of the update:

- 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”

Start Base Map Selection Results

## Distance/Direction Analysis

Home to Work

▼ Display Settings

Labor Market Segment All Workers

Filter

Year 2017

▼ Map Controls

Color Key

Thermal Overlay ☒

Point Overlay ☐

Selection Outline ☒

Identify Zoom to Selection

Clear Overlays Animate Overlays

▼ Report/Map Outputs

Detailed Report

Export Geography

Print Chart/Map

▼ Legends

5 - 102 Jobs/Sq.Mile

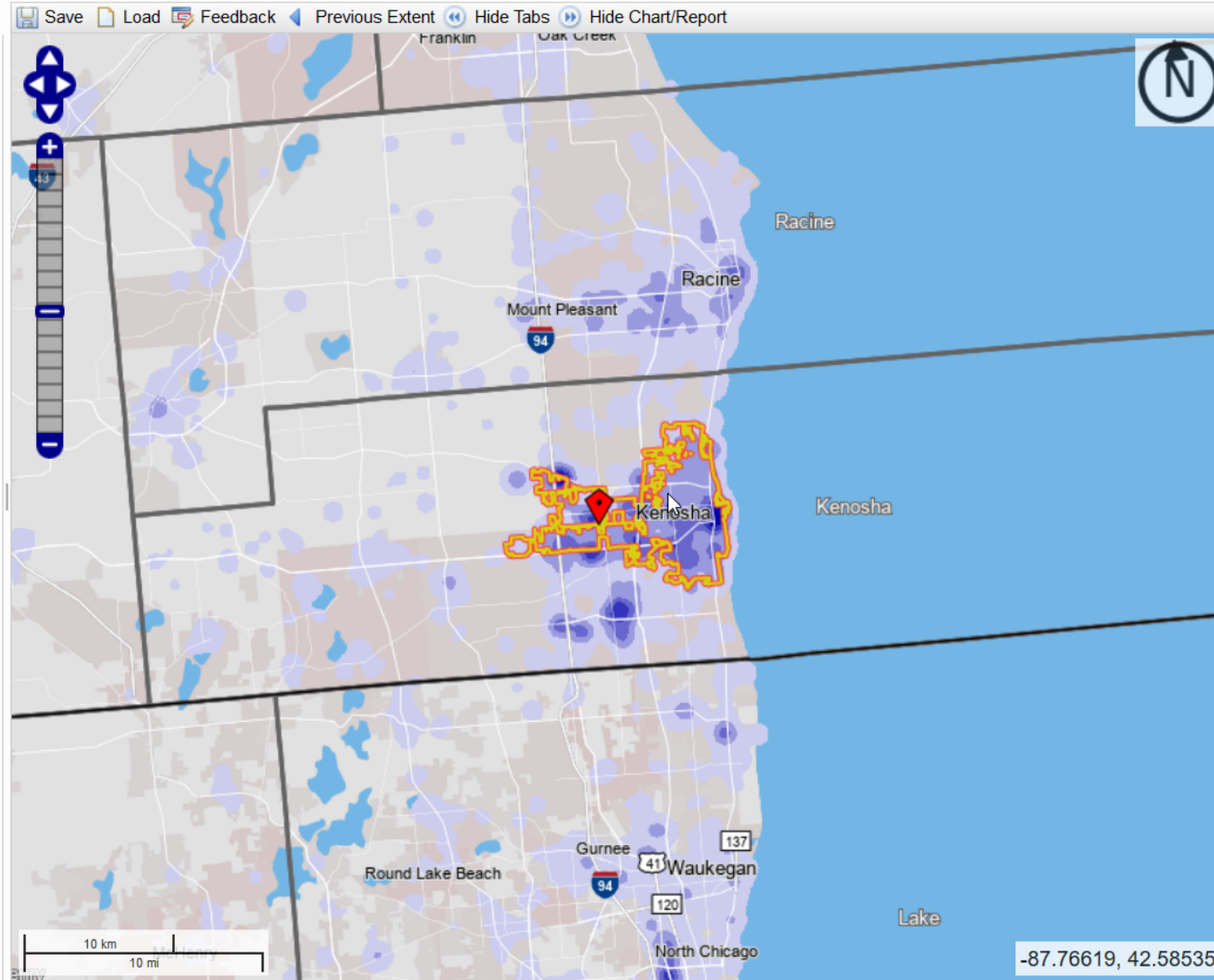
103 - 395 Jobs/Sq.Mile

396 - 882 Jobs/Sq.Mile

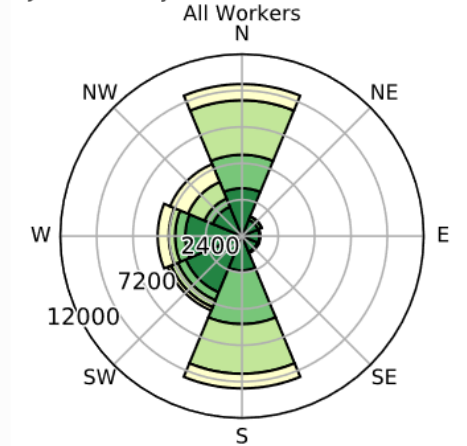
883 - 1,565 Jobs/Sq.Mile

1,566 - 2,443 Jobs/Sq.Mile

[Change Settings](#)



Job Counts by Distance/Direction in 2017

Jobs by Distance - Home Census Block to Work  
Census Block

	2017	
	Count	Share
Total Private Primary Jobs	39,914	100.0%
Less than 10 miles	18,716	46.9%
10 to 24 miles	7,831	19.6%
25 to 50 miles	8,962	22.5%
Greater than 50 miles	4,405	11.0%

# Looking Ahead for LODES/OnTheMap



## LODES

- 2018 Data
- Backfilling federal workers
- Backfilling historical state data
- Additional research to improve the data product (confidentiality protection, publication levels, etc.)

## OnTheMap

- Planning for the next major application update

Feedback is encouraged: [CES.OnTheMap.Feedback@census.gov](mailto:CES.OnTheMap.Feedback@census.gov)

# Want More Information LEHD Data and Data Tools?

We are holding concurrent training sessions this afternoon:

- J2J Data and J2J Explorer at 1:15pm and 2:30pm in Conference Room 2
- OnTheMap at 1:15pm and 2:30pm in Conference Room 3
- PSEO Q&A at 1:15pm and 2:30pm in Conference Room 4



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## Updating the LEHD Mailing Lists

The following LEHD listservs will be retired shortly after the workshop:

- LEHD-General [lehd-general@lists.census.gov](mailto:lehd-general@lists.census.gov)
- LEHD-OnTheMap [lehd-onthemap@lists.census.gov](mailto:lehd-onthemap@lists.census.gov)
- LED-QWI [led-qwi@lists.census.gov](mailto:led-qwi@lists.census.gov)
- LED-Partners [led-partners@lists.census.gov](mailto:led-partners@lists.census.gov)

All existing members will be migrated to a new system and receive announcements from:  
“U.S. Census Bureau [census@subscriptions.census.gov](mailto:census@subscriptions.census.gov)”

Uses a system called GovDelivery

## Updating the LEHD Mailing Lists

Preferences for all Census Bureau notifications managed in one place:

<https://public.govdelivery.com/accounts/USCENSUS/subscriber/new>

Features include:

- Subscription options for each LEHD public dataset:  
LODES/OnTheMap, QWI, **J2J**, & **PSEO** (bolded are new)
- General and LED Partner subscriptions
- Deduplication of Announcement Emails
- Easily subscribe/unsubscribe
- Integrated access to other Census Bureau email lists



Extra slides