

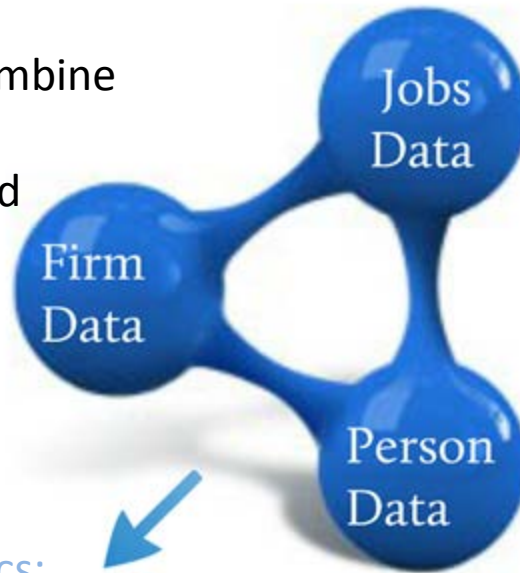
Newly Available Public Use Data and Tools for 2017: Enhanced Job-to-Job Flows, J2J Explorer, LODES update

Local Employment Dynamics Partnership Conference
September 11, 2017

Erika McEntarfer, Lead Economist
Longitudinal Employer-Household Dynamics (LEHD) Program
Center for Economic Studies, U.S. Census Bureau

The Local Employment Dynamics (LED) state-federal partnership

An innovative partnership to combine already collected administrative and survey data



The LEHD microdata

..linking it together to provide new information about the U.S. economy at very low cost

Public use statistics:
Quarterly Workforce Indicators
LODES/OnTheMap
Job-to-Job Flows

New Data and Tools Released in 2017:

- New LODES data release
 - 2015 data
- Job-to-Job Flows v2.0
 - Will be released later this week
 - New metro-area tabulations
 - New earnings variables
 - More detailed cross-tabulations
- J2J Explorer
 - New tool to analyze Job-to-Job Flows data
- Will focus talk on last two

LODES/OnTheMap Update

- LODES 2015 data will be released in OnTheMap in the next two weeks.
- This release of LODES accounts for some changes in Federal/OPM data:
 - New occupation-level suppressions (mostly focused on enforcement occupations).
 - This includes the suppression of about 175,000 Federal jobs in 2015.
 - A data notice summarizing these changes will accompany the 2015 release.

FiveThirtyEight

May 21, 2014

Want a Raise? Quit Your Job

Ben Casselman



Jonathan House of The Wall Street Journal has an [interesting story](#) in Friday's paper about how a shortage of skilled workers is driving up wages in a handful of industries (oil drilling, trucking, home construction), even as overall earnings growth remains weak.

In 2015, Census began first release of new Job-to-Job Flows data

Why care about job-to-job flows?

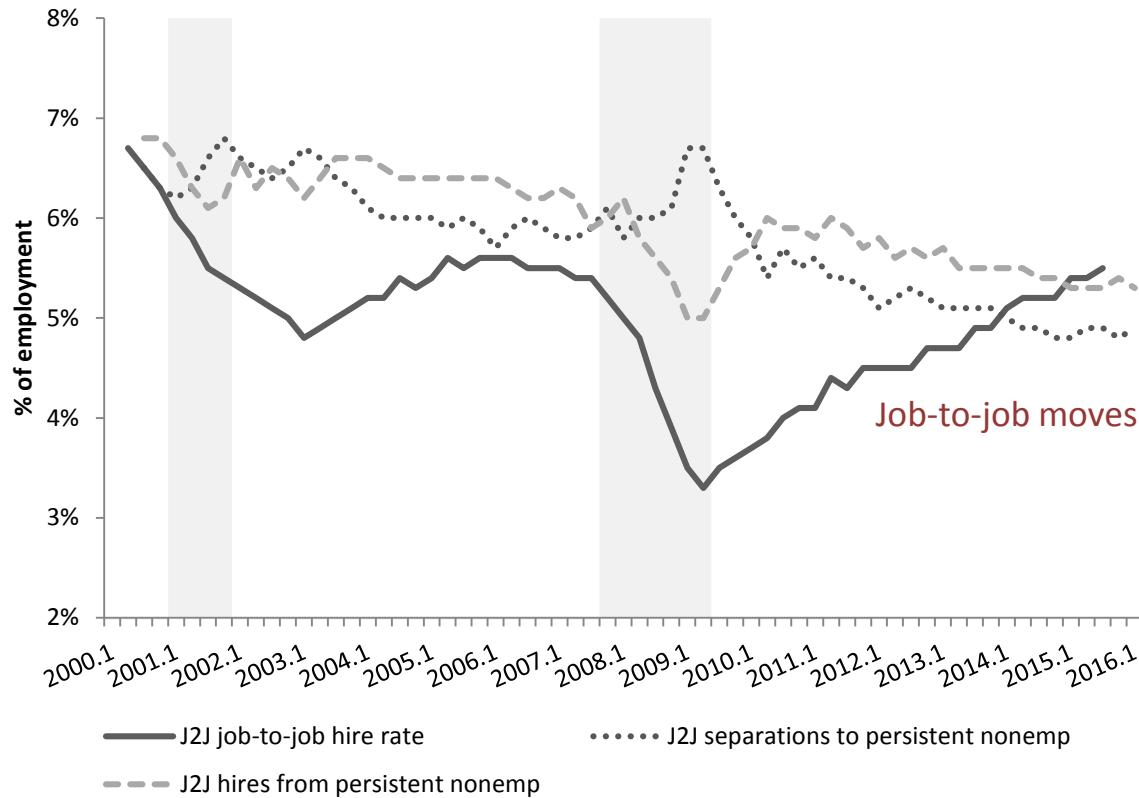
They are enormous:

- In 2016, most job separations (and hires!) were workers moving from one job to another.

Job change is strongly procyclical:

- Most job moves are moves 'up the job ladder' to better paying industries and employers

Rate of job change in the U.S.: 2000-2016



Source: U.S. Census Bureau, Job-to-Job Flows, seasonally-adjusted national-level data, release R2017Q1. Shaded regions indicate NBER recession quarters.

Job-to-Job Flows: what data is available

Count and rate data

Job-to-job flows

- Hires
- Separations

Employment flows

- Hires
- Separations

Available by:

- National, state, and metro
- By worker demographics
- By industry sector, firm age and size
- Seasonally adjusted (higher aggregations only) and not seasonally adjusted (all aggregations)

Origin-destination data

Job-to-job flows: origin job to destination job

Available by:

- State and metro area (not available nationally, except 2010-2014)
- Industry and demographics
- Information available both for origin job and destination job

October 19, 2015, 9:40 AM ET

Here's Where All the Construction Workers Went

By Jeffrey Sparshott



Crews construct a Ryland Group home near Dallas.

KRIS HUDSON/THE WALL STREET JOURNAL

The Wall Street Journal has chronicled builders' complaints about a [shortage of construction workers](#) when employment levels are still well below those of the boom years.

Indeed, industry-wide employment cratered from 2006 to 2011, losing nearly 2.3 million jobs. [Where did they all go?](#)

Well, the Census Bureau's job-to-job flows program tracks workers as they move in and out of the labor market, but agency economists Hubert Janicki and Erika McElroy have some [interesting findings](#).

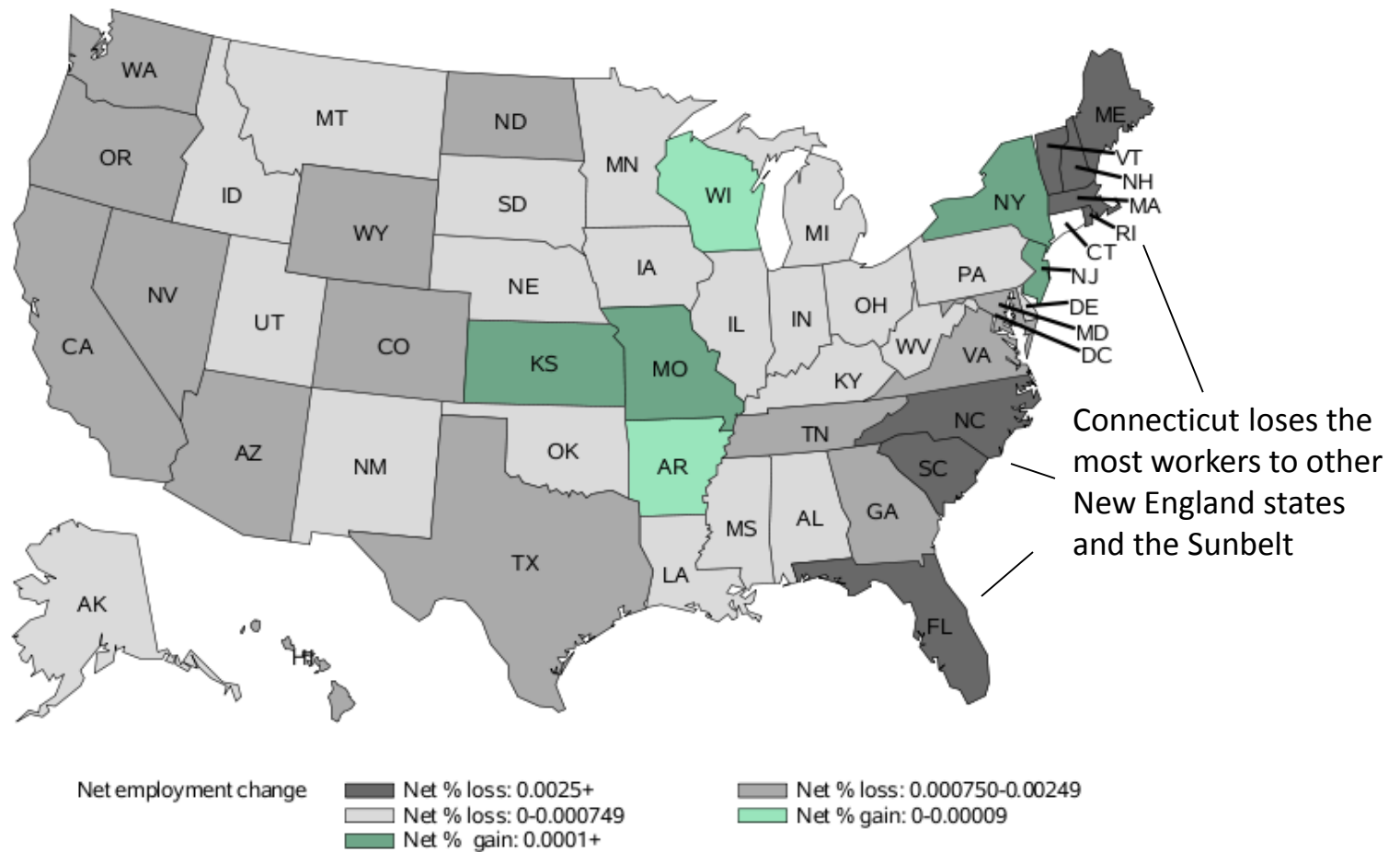
J2J Origin-Destination data provides more context to hires and separations statistics:

2.3 million construction jobs disappeared between 2006 and 2011. Where did these workers go?

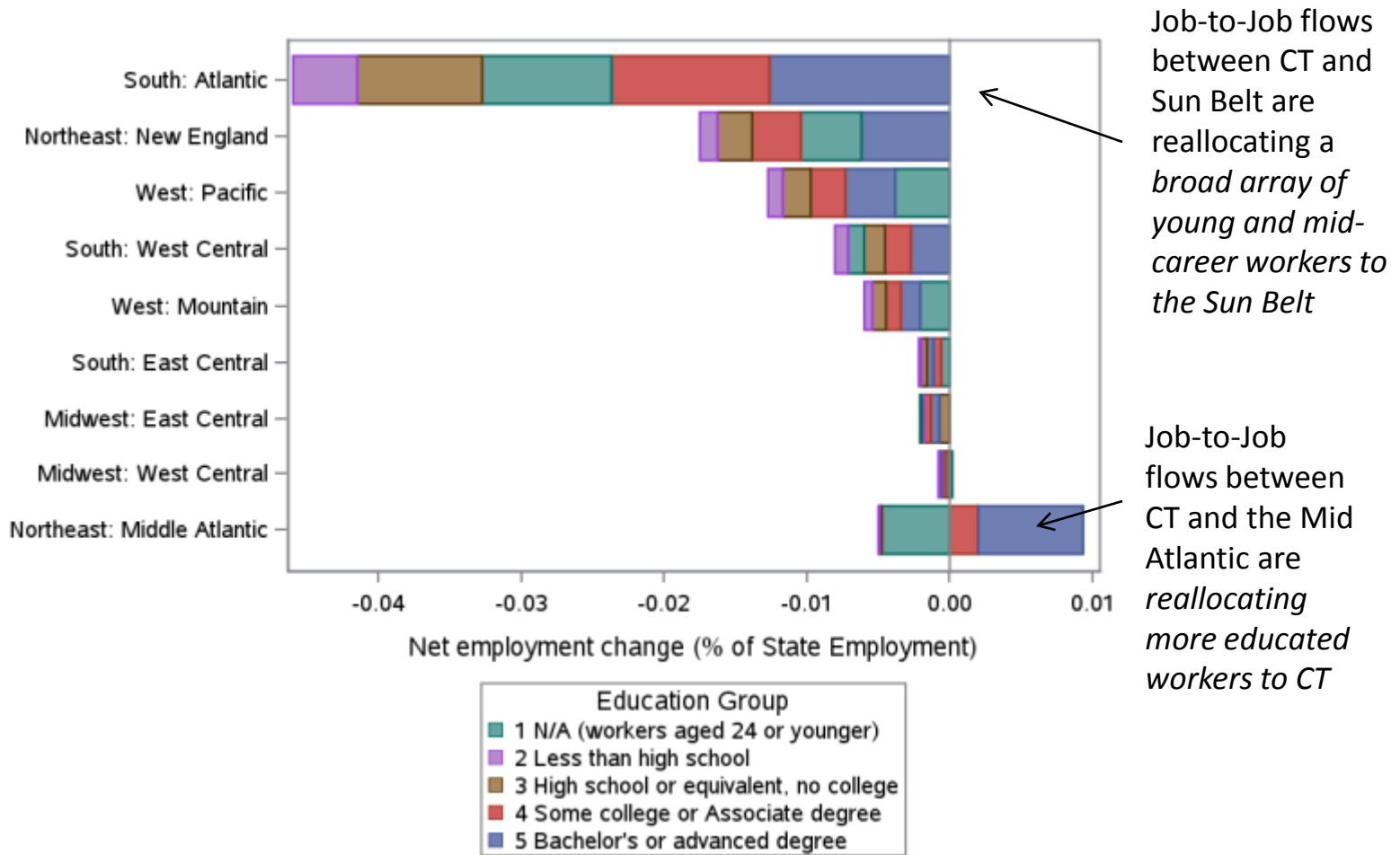
40% returned to construction, finding jobs at different employers

60% of workers left the labor market or moved to different industries after the housing boom.

Net worker inflows to Connecticut, controlling for size of state, 2010-2014



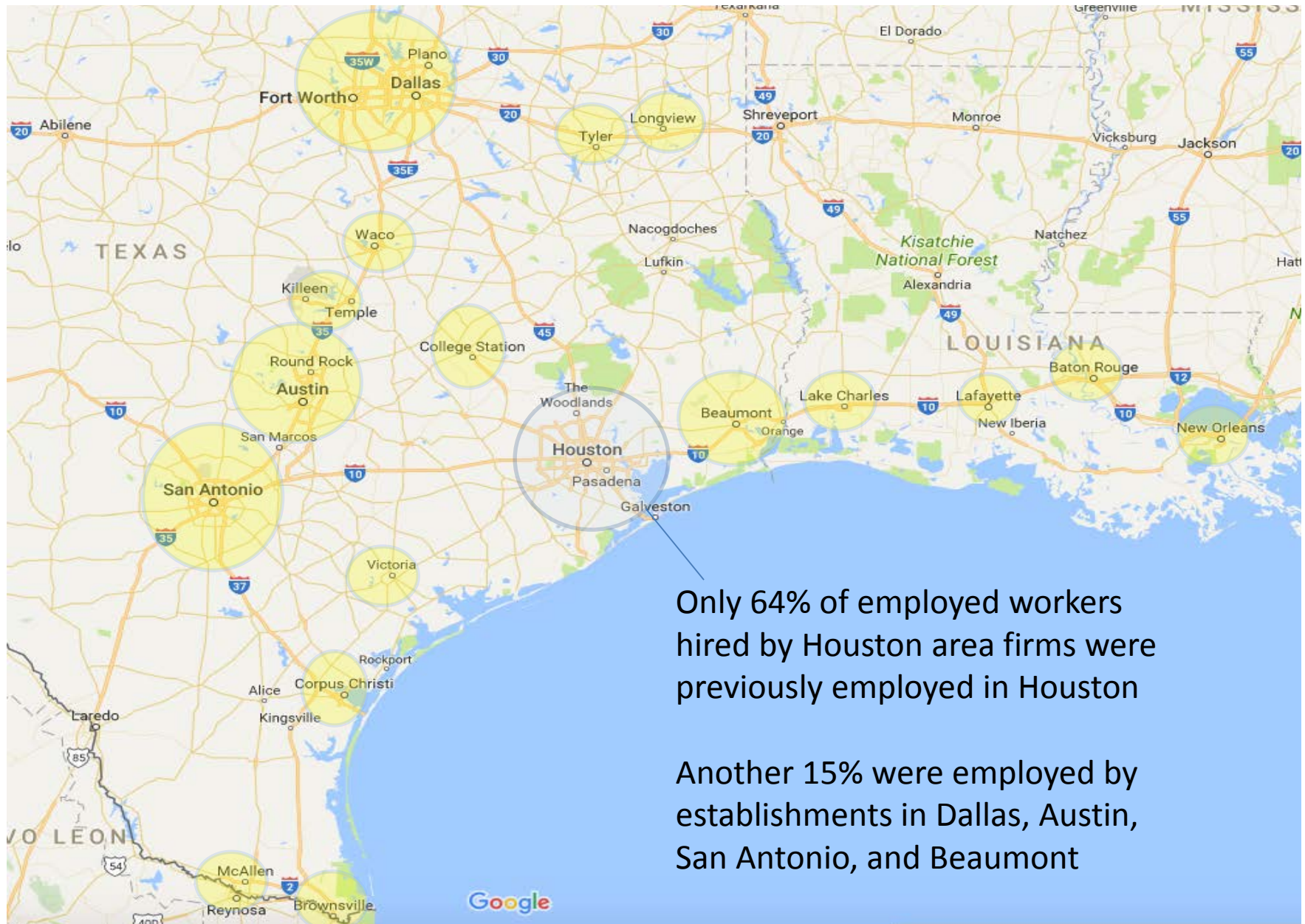
Net worker inflows to Connecticut, by education and region, 2010-2014



What's new in the newly released J2J:

- New metro-area tabulations
 - Count and origin-destination data
- New earnings variables
 - Earnings by origin and destination job in OD data
 - Earnings for hires and separations as well as job stayers in count data
- More detailed cross-tabulations
 - Industry by demographics

New Hires in Houston in 2015 Q3, by where employed at start of quarter



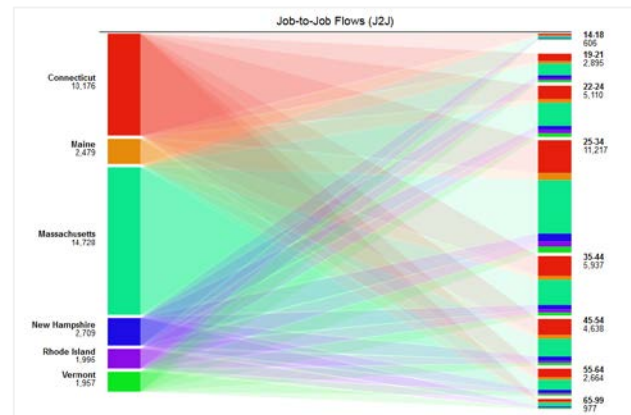
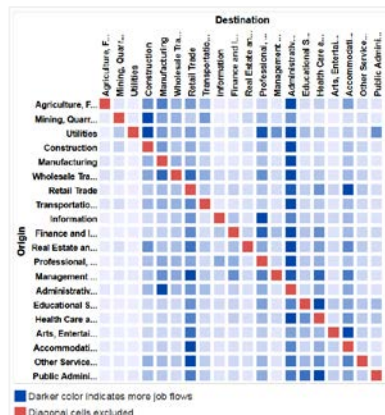
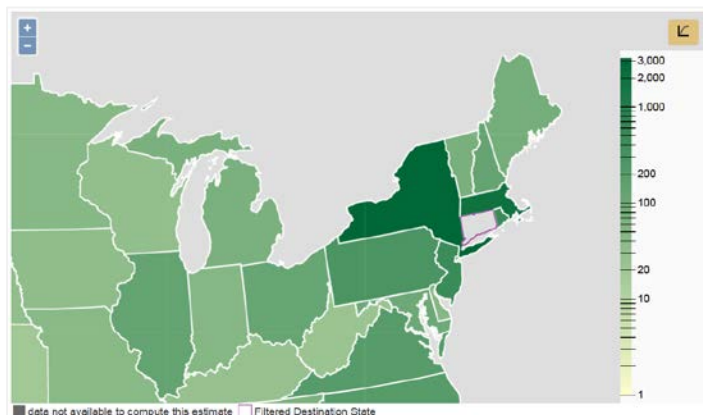
Zooming out: new hires in Houston in 2015 Q3, by where employed at start of the quarter (top 25 metros only)



New earnings data: Houston job-to-job moves into Mining and Oil Extraction sector, by industry of job at start of quarter

Industry of Previous Job	Number of Transitions in 2015 Q3 (EES)	Average Earnings in Previous Job (annualized)	Average Earnings in New Mining Job (annualized)	% Change
Mining	682	143,612	165,724	14.3%
Utilities	15	110,804	117,624	6.0%
Construction	212	71,820	79,488	10.1%
Manufacturing	145	107,636	105,656	-1.9%
Wholesale Trade	122	119,464	114,036	-4.6%
Retail Trade	28	66,616	55,504	-18.2%
Transportation and Warehousing	160	94,132	94,184	0.1%
Information	17	68,972	83,120	18.6%
Finance and Insurance	26	134,616	151,416	11.7%
Real Estate	30	82,940	89,580	7.7%
Professional and Technical Services	156	114,664	172,460	40.3%
Management of Companies	56	170,728	167,708	-1.8%
Admin Support and Waste Management	114	100,832	103,008	2.1%
Educational Services	21	55,456	44,956	-20.9%
Health Care	31	63,092	68,740	8.6%
Arts and Entertainment	4	66,448	55,104	-18.7%
Accommodation and Food Service	15	39,668	35,588	-10.8%
Other Services	22	76,612	81,016	5.6%

Note: Calculated from Census Job-to-Job Flows data, 2017Q2 release. Earnings are nominal, 2015 Q2 for origin job, 2015 Q4 for destination job. Only earnings for full-quarter to full-quarter job transitions are tabulated.



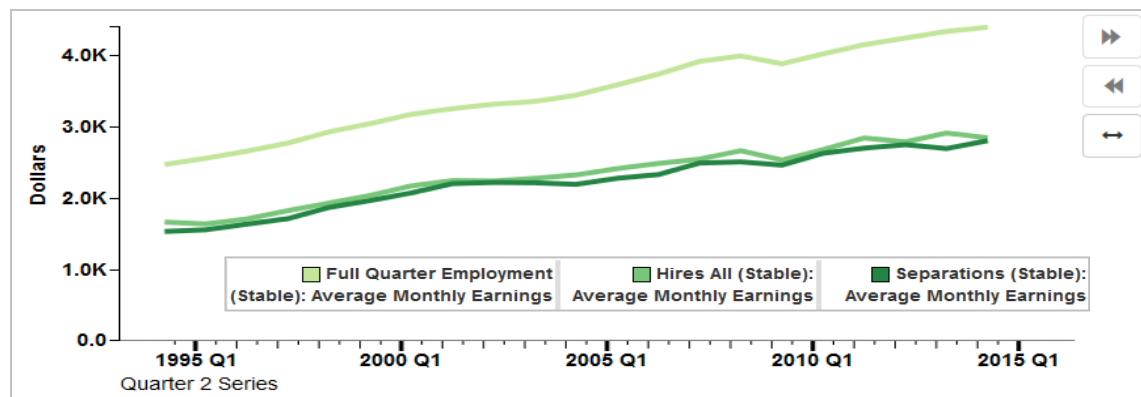
Update on LED Data Tools

Local Employment Dynamics Partnership Conference
September 11, 2017

Heath Hayward, Geographer
Longitudinal Employer-Household Dynamics (LEHD) Program
Center for Economic Studies, U.S. Census Bureau

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



Data Dissemination Strategy

Provide a wide variety of access points to the data to accommodate as many user needs as possible:

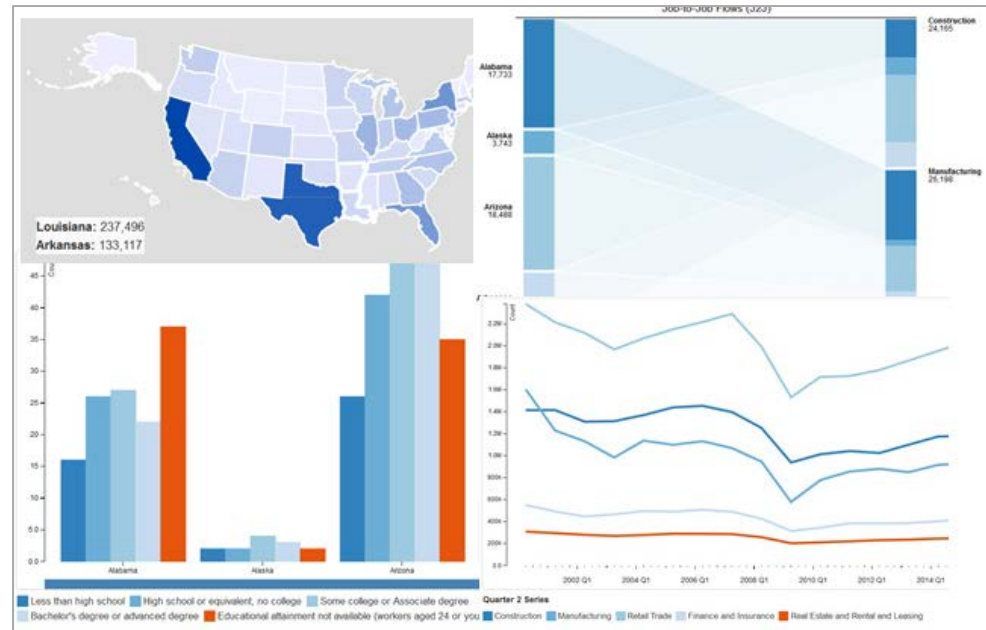
- **Analysis/Viz Tools:** Create your own table, chart, and map with a flexible dashboard interface in [QWI Explorer](#), [J2J Explorer](#), and [OnTheMap](#)
- **Intermediate data users:** Extract the exact indicators and characteristics needed using the [LED Extraction Tool](#) (currently QWI Only)
- **Advanced data users:** Access single raw files from <https://lehd.ces.census.gov/data> and https://lehd.ces.census.gov/data/j2j_beta.html
- **Advanced data users:** Bulk download of raw from <https://lehd.ces.census.gov/pub/>, <https://lehd.ces.census.gov/data/lodes> and <https://lehd.ces.census.gov/data/j2j>
- **Integration into the Census API** (currently QWI Only):
<http://beta.dataweb.rm.census.gov/data/timeseries/qwi.html>

What's New in LEHD's Applications

- National QWI and cross-state queries in QWI Explorer and LED Extraction Tool
- Local Storage in QWI Explorer
 - Customize your preferences – choose to remove conflict popups, set default settings, etc.
- 2015 data in OnTheMap (with 2016 TIGER geographies)
- Many bug fixes

J2J Explorer

- ✓ 32 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
- ✓ Guided Entry enables easy access for new users

Quick Demo of J2J Explorer

- In which states did newly-hired employees in South Carolina previously work?
- Do employees leaving jobs in Construction generally enter nonemployment or start another job?
- Which age groups are driving worker reallocation out of New England states?

Priorities Moving Forward

- Applications updates driven by:
 - Newly available public-use data (new data product or expanded data product)
 - Functionality requests via customer feedback
 - Necessary technology updates (back-end and UI)
- J2J Explorer 1.0
- OnTheMap refresh
- Add LODS and J2J to LED Extraction Tool and Census API (longer term projects)

Specific Updates

- **J2J Explorer 1.0:**
 - Metro Area tabulations
 - Firm Characteristics crossed with Worker characteristics
 - Earnings measures
 - Improved transitions between visualizations
 - Ranking/Normalization functionality
 - Expanded exports
- **OnTheMap 7:**
 - Update backend technology
 - Improve user interface and visualizations

Thank You!

Link to Applications

- [Lehd.ces.census.gov/applications](https://lehd.ces.census.gov/applications)

Link to Raw Data

- [Lehd.ces.census.gov/data](https://lehd.ces.census.gov/data)

Questions or Feedback?

- Erika.McEntarfer@census.gov
- Patrick.Hayward@census.gov
- CES.OnTheMap.Feedback@census.gov
- CES.QWI.Feedback@census.gov
- CES.J2J.Feedback@census.gov

Extra slides

How job transitions in are identified in the admin data:

Fictional Job History

PIK	SEIN	Q1	Q2	Q3	Q4	Q5
Person1	Firm A	7000	2500	0	0	0
Person1	Firm B	0	0	3000	6000	7500

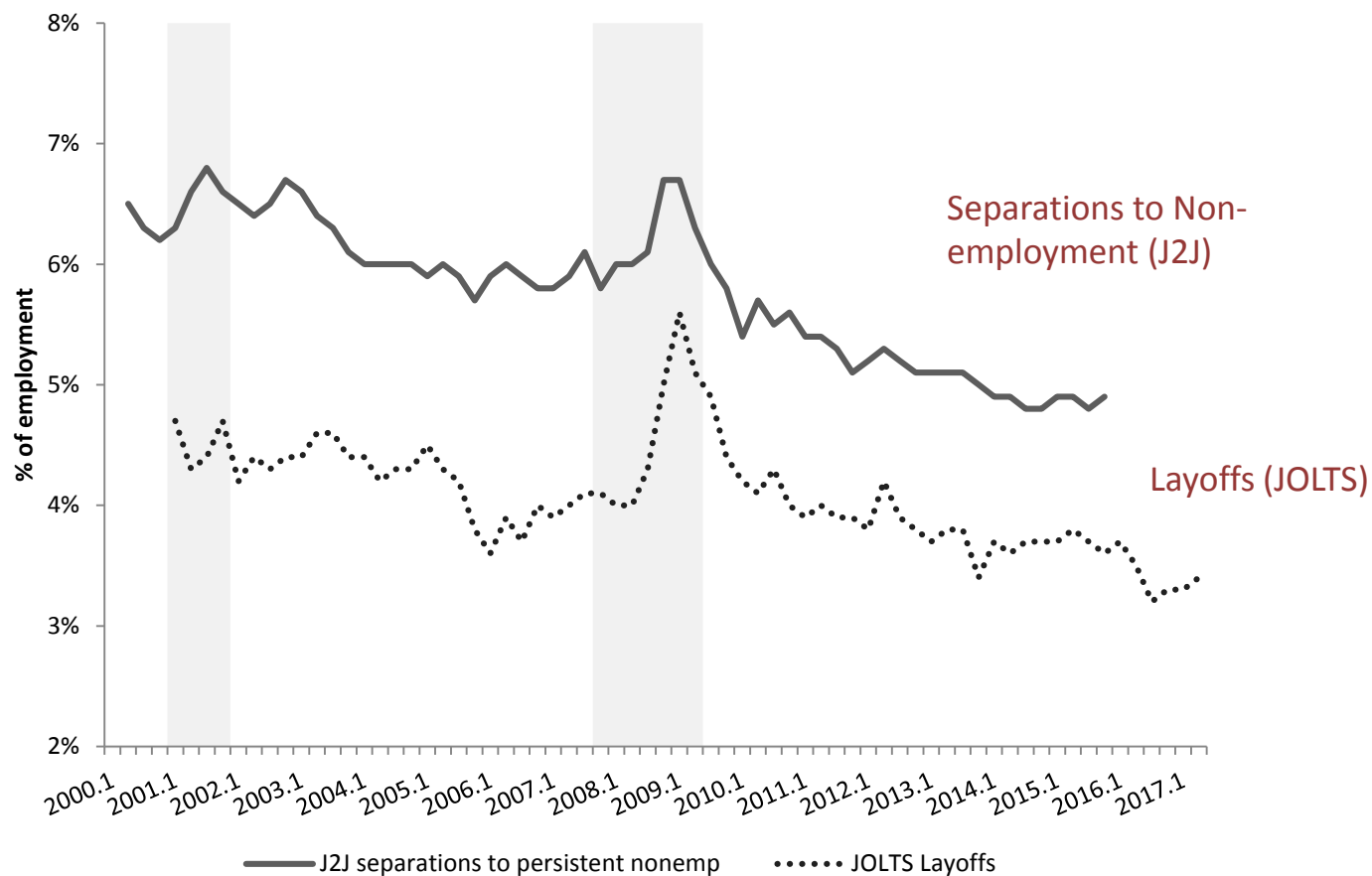
Job on April 1

Leaves Firm A during Q2

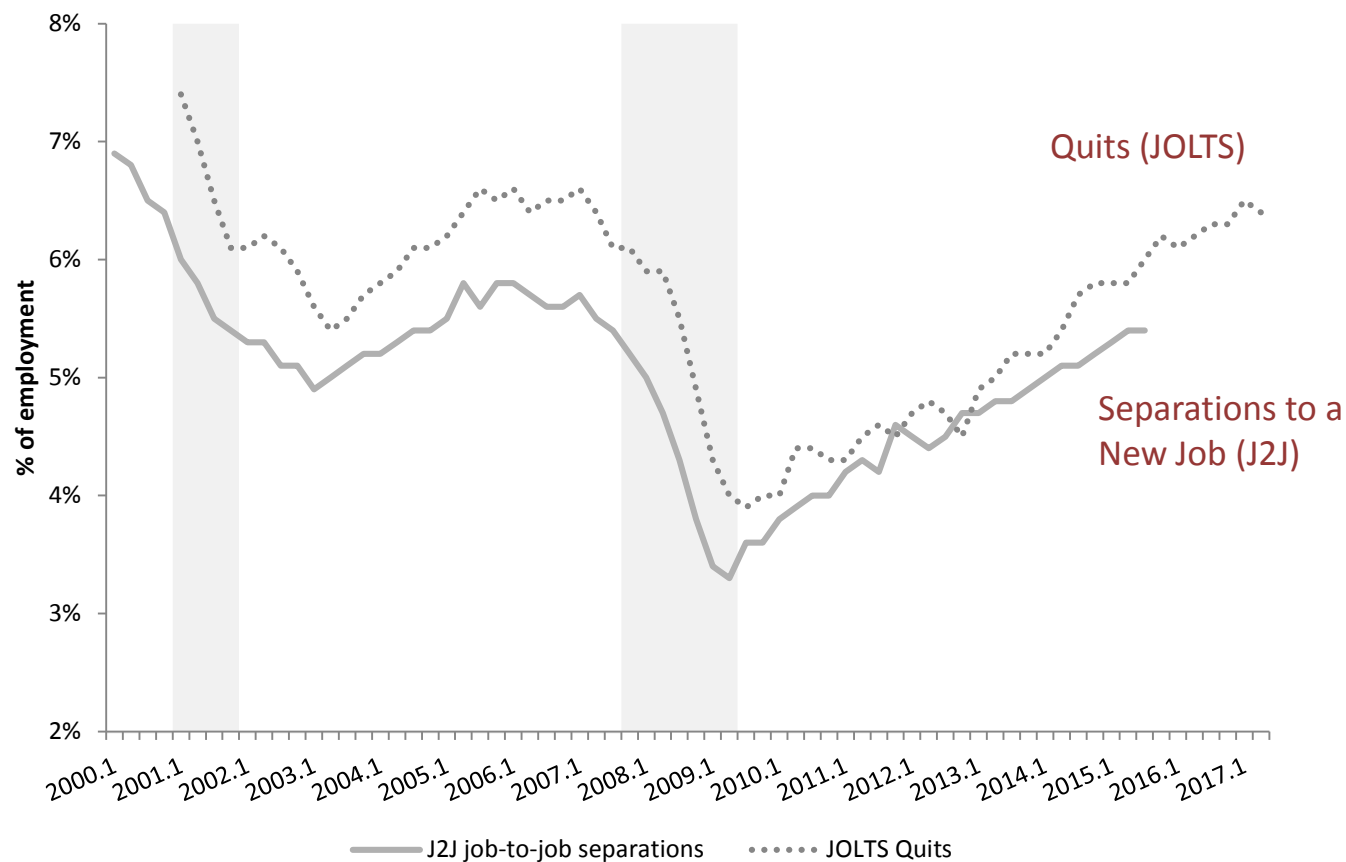
July 1: no earnings at any job

Employed on Oct 1 at Firm B, hired sometime during Q3

Comparison to JOLTS: Layoffs



Comparison to JOLTS: Quits



J2J separations-to-employment vs. CPS employer-to-employer flows

