

New J2J Data and Analyses with J2J Explorer

Accessing and Understanding the Data

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Longitudinal Employer-Household Dynamics
U.S. Census Bureau
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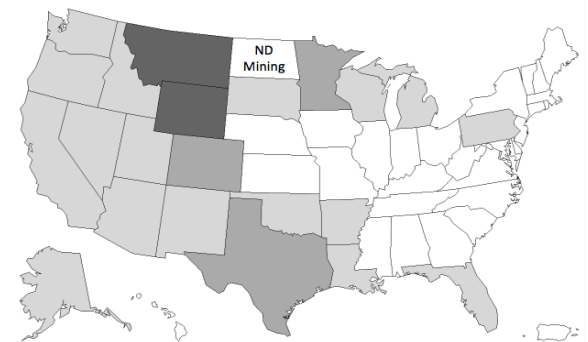
Training Outline

- What is a Job-to-Job Flow?
- Accessing J2J Data – J2J Explorer, Raw Data Download, LEHD Homepage
- Introduce J2J Explorer
- New J2J Data – Earnings and Metro Areas
- J2J Explorer Demo and Exercises
- Coming Soon!
- Questions

What is a Job-to-Job Flow?

- Job-to-Job Flows (J2J) are new national statistics on **job mobility** in the U.S.
 - With this 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.
- Types of questions that can be answered:
 - How does growth/decline in construction jobs impact the ability of low-wage workers to move to better jobs?
 - Where did North Dakota's oil boom workers come from?

Where are the out-of-state workers coming from?
Net economic migration into ND mining sector: 2008-2012

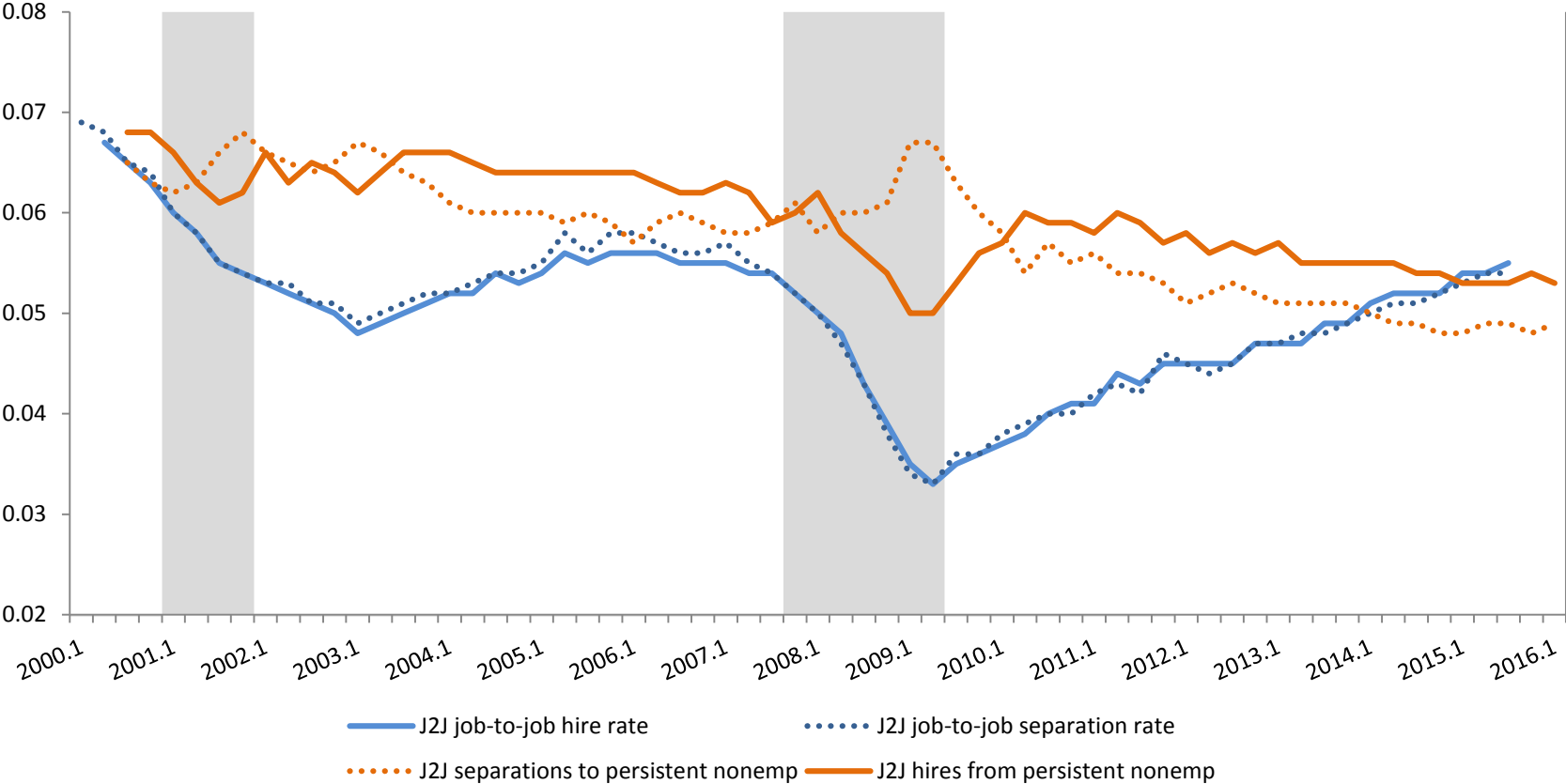


North Dakota Mining, Net Out-of-State Hires: 2008-2012

Why are J2J Important?

- Better understand worker turnover
 - Are separations mostly coming from workers changing jobs or from workers transitioning into nonemployment?
 - When workers change jobs, are they switching to new industries or moving to a new locations?
- See the impact of job ladders
 - Are job moves leading to workers moving 'up the job ladder' to better paying industries and employers?
- Look at economic migration across labor markets
 - What labor markets are we losing workers to? Which workers? What industries in my state are importing workers from other states?

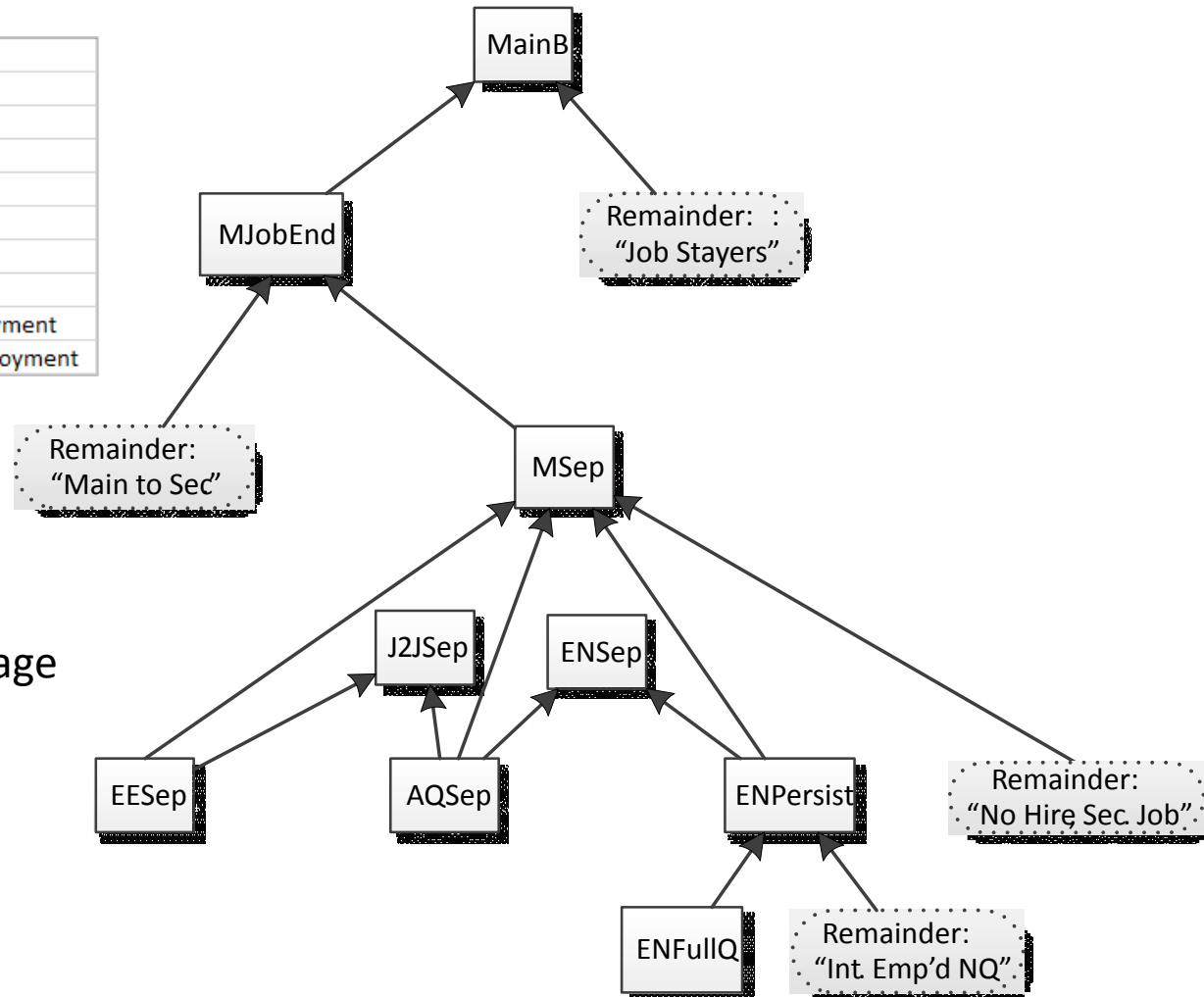
National Job-to-Job Flows



Note: Shaded regions indicate NBER recession quarters. All data are seasonally adjusted. These J2J tabulations do not include planned adjustments to the **J2J** series to account for partially-missing geography early in the time series.

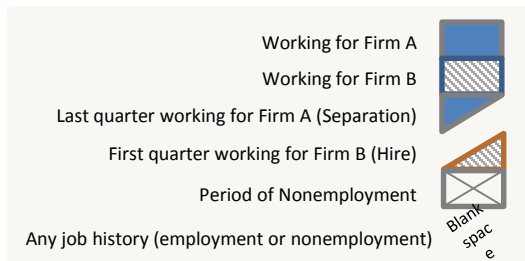
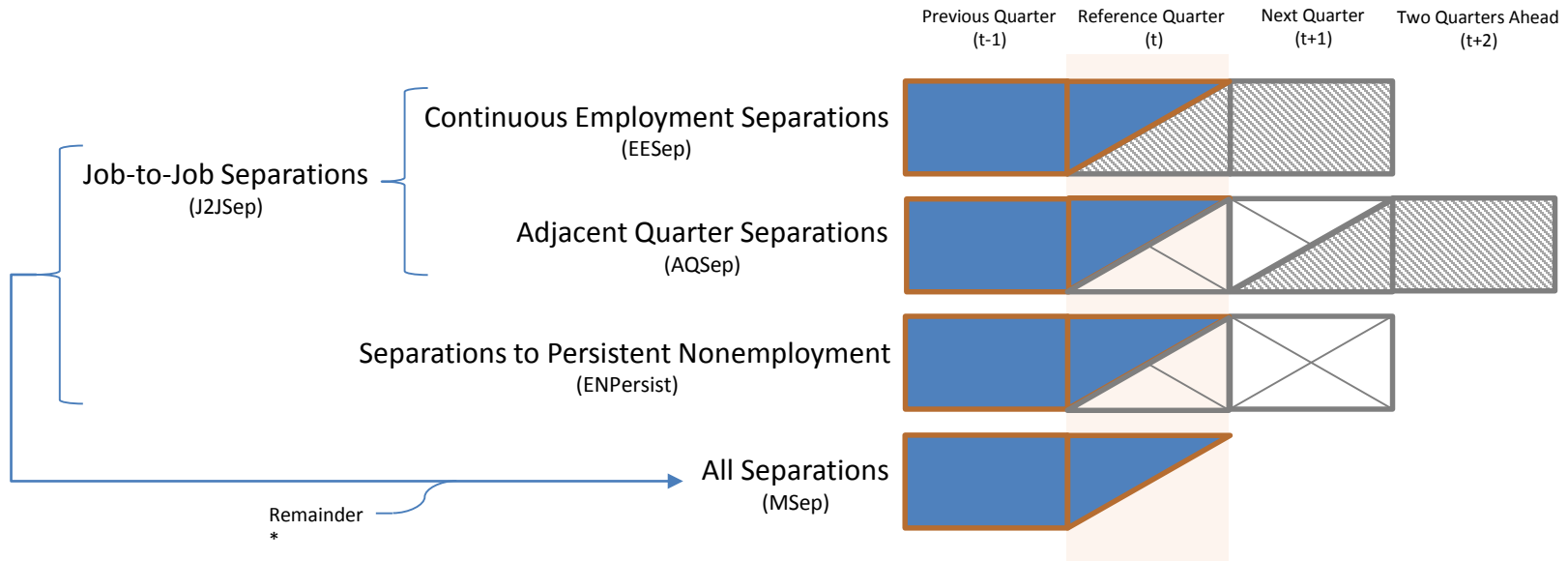
Variable Relatedness: Counts of Separations

Indicator Variable	Indicator Name
MainB	Employment (Beginning of Quarter)
MJobEnd	Main Job Ends
MSep	All Separations
EESep	Continuous Employment Separations
AQSep	Adjacent Quarter Separations
J2JSep	Job-to-Job Separations
ENSep	Separations to Nonemployment
ENPersist	Separations to Persistent Nonemployment
ENFullQ	Separations to Full-Quarter Nonemployment



- Parent/Child Relationships
- “Hires” diagram is mirror image

Variable Relatedness: Counts of Separations



EESep: Separations followed by a hire with no nonemployment spell
AQSep: Separations followed by a hire with a short nonemployment spell
J2JSep: Separations followed by a hire with a short or no nonemployment spell
ENPersist: Separations into a spell of persistent nonemployment
MSep: Separations from a worker's main job

Note: "Hire" J2J Indicators are mirror images of the above indicators, except the hires take place in the reference quarter (t)*

* See complete J2J Relatedness Diagram here for additional information: lehd.ces.census.gov/doc/help/j2j_explorer/J2JVariableRelatedness.pdf

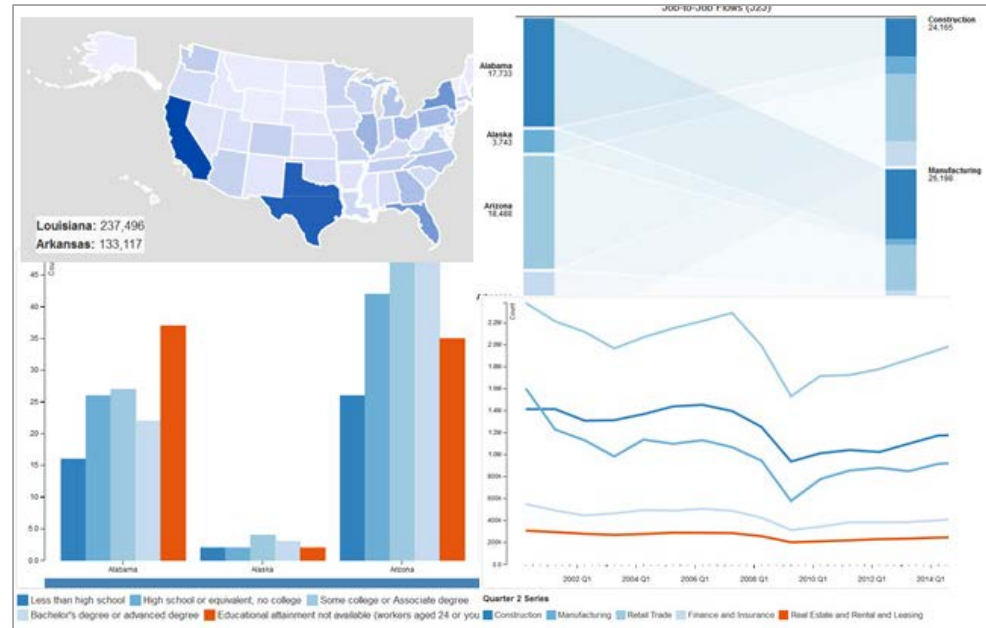
Accessing J2J Data

LEHD provides a wide variety of access points to the data in order to accommodate as many user needs as possible:

- Web tool users: Create your own table, chart, and map using the flexible user-interface of [J2J Explorer](#)
- Advanced data users: Access single raw J2J files from https://lehd.ces.census.gov/data/j2j_beta.html
- Advanced data users: Bulk download of raw J2J files from <https://lehd.ces.census.gov/data/j2j/>
- Coming Soon: Intermediate data users: Extract the exact indicators and characteristics needed using the [LED Extraction Tool](#)

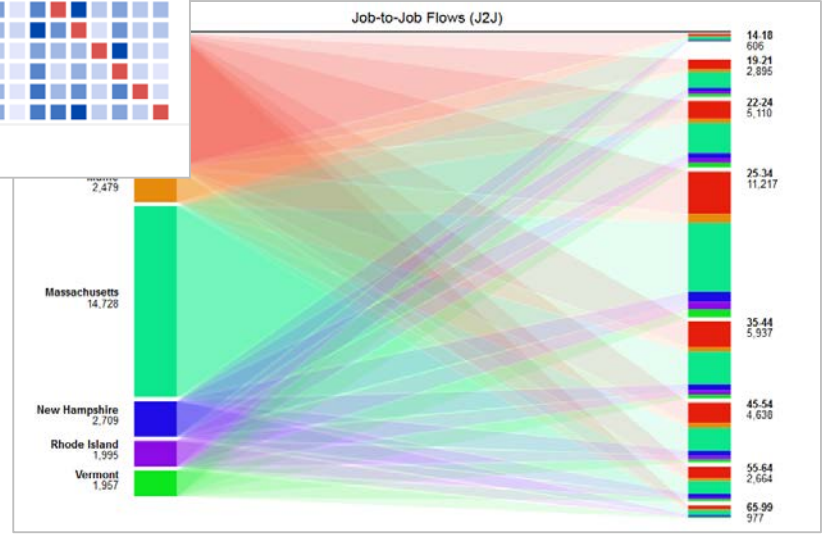
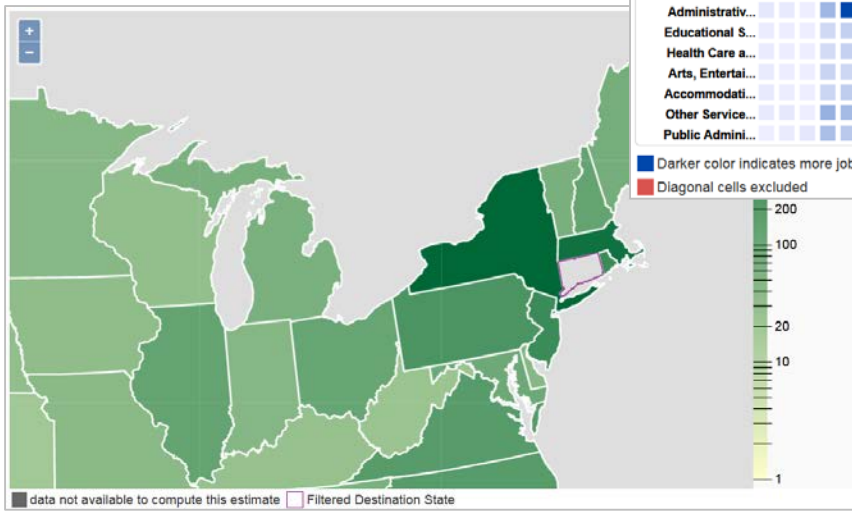
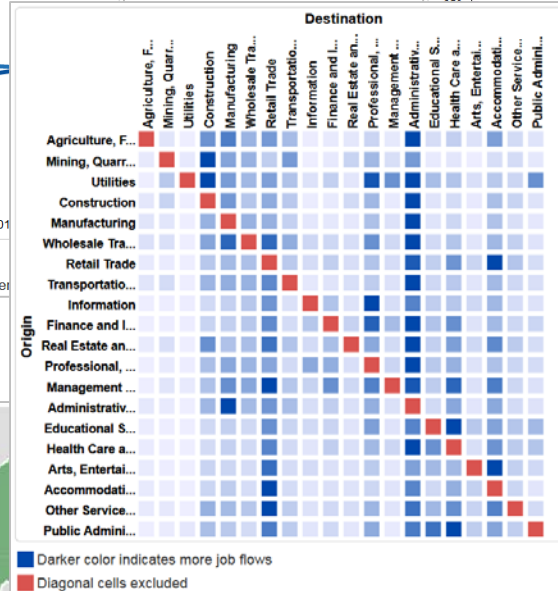
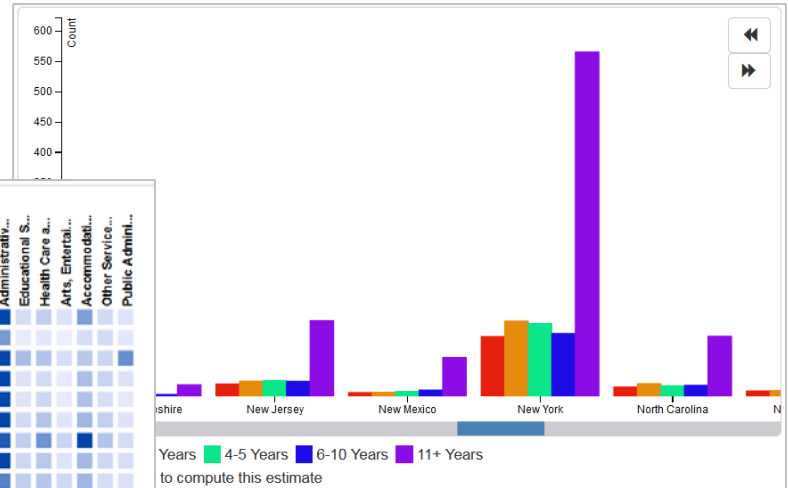
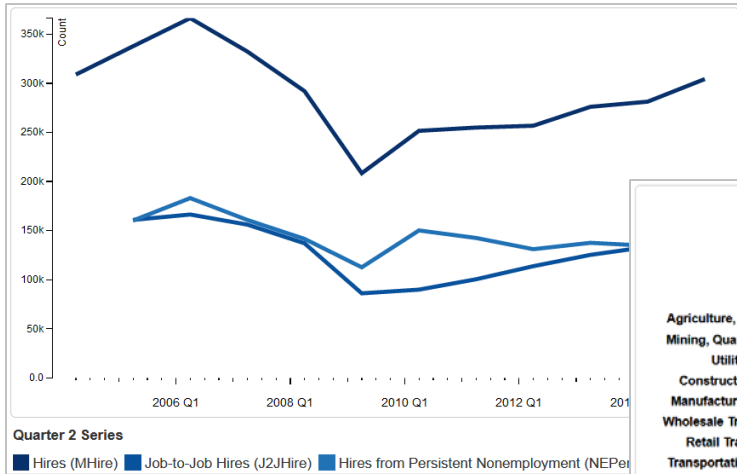
J2J Explorer

- ✓ 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

Visualizations in J2J Explorer



New J2J Data

- Tabulations at the metro level will be available in the 2017Q2 release (available September 13th)
- Users can now look at job-to-job flows
 - Between metro areas
 - Between metro areas and states
 - Between metro areas and the nation
- Metro areas are defined by OMB and conceptually consist of a core urbanized area (with 50k+ population) with adjacent communities having a high degree of economic and social integration with that core
 - Data for non-metro area state-remainders are also provided
 - A list of codes for metro areas and non-metro area state-remainders can be found in the latest J2J schema; see https://lehd.ces.census.gov/data/schema/V4.2b-draft/lehd_public_use_schema.html

New J2J Data

- J2J counts/rates at the metro level are only tabulated by:
 - NAICS sector
 - Sex by Age
 - Sex by Education
 - Race by Ethnicity
- J2JOD counts to/from the metro level are only tabulated by:
 - Origin NAICS sector by Destination NAICS sector
 - Sex by Age
 - Sex by Education
 - Race by Ethnicity
- Only non-seasonally adjusted tabulations are available

New J2J Data

- New earnings measures will be available in the 2017 Q2 release
- Earnings are tabulated at the state and metro level
 - Tabulations at the national level are under development and will be provided in a future release
- Averages are provided for all available cross tabulations

New J2J Data

Type of transition	Origin	Destination
Job Stayers	Yes	Yes
Job-to-Job Flows		
Within-quarter	Yes	Yes
Adjacent-quarter	Yes	Yes
Flows from Nonemployment	No	Yes
Flows to Nonemployment	Yes	No

New J2J Data

- How are earnings calculated?
 - We determine which workers have full quarter jobs in a given quarter
 - For these workers, we sum their earnings from the quarter and then divide by the count of workers to obtain average earnings

Worker	t-2	t-1	t	t+1	Incl in orig?	Incl in dest?
A (Stayer)	\$1000	\$1000	\$1000	\$1000	Yes	Yes
B (Flow from nonemployment)		\$1500	\$1500	\$1500	No	Yes
C (Within quarter job-to-job flow)	\$1350	\$1350	\$1350		Yes	No
		\$650	\$1300	\$1300	No	Yes

New J2J Data

- The new earnings measures allows users to conduct new types of labor market analyses
 - Compare how much different types of workers are earning in a particular state or industry
 - See which industries offer the highest earnings to workers who were previously not employed
 - See if job changes result in higher earnings and how this varies by whether or not workers switch industries
 - Look at how earnings and earnings changes have trended over time

J2J Explorer Demo

Example Analyses in J2J Explorer

- https://lehd.ces.census.gov/doc/help/j2j_explorer/J2JExplorerAnalysisGuide1.pdf
- https://lehd.ces.census.gov/doc/help/j2j_explorer/J2JExplorerAnalysisGuide2.pdf
- https://lehd.ces.census.gov/doc/help/j2j_explorer/J2JExplorerAnalysisGuide3.pdf
- https://lehd.ces.census.gov/doc/help/j2j_explorer/J2JExplorerAnalysisGuide4.pdf
- https://lehd.ces.census.gov/doc/help/j2j_explorer/J2JExplorerAnalysisGuide5.pdf
- https://lehd.ces.census.gov/doc/help/j2j_explorer/J2JExplorerAnalysisGuide6.pdf

Let's jump into J2J Explorer for a demo and work through some examples:

- National Separations from Manufacturing jobs
- National Job Flow Connectivity between Industries

Example Analyses in J2J Explorer

Profile of Virginia:

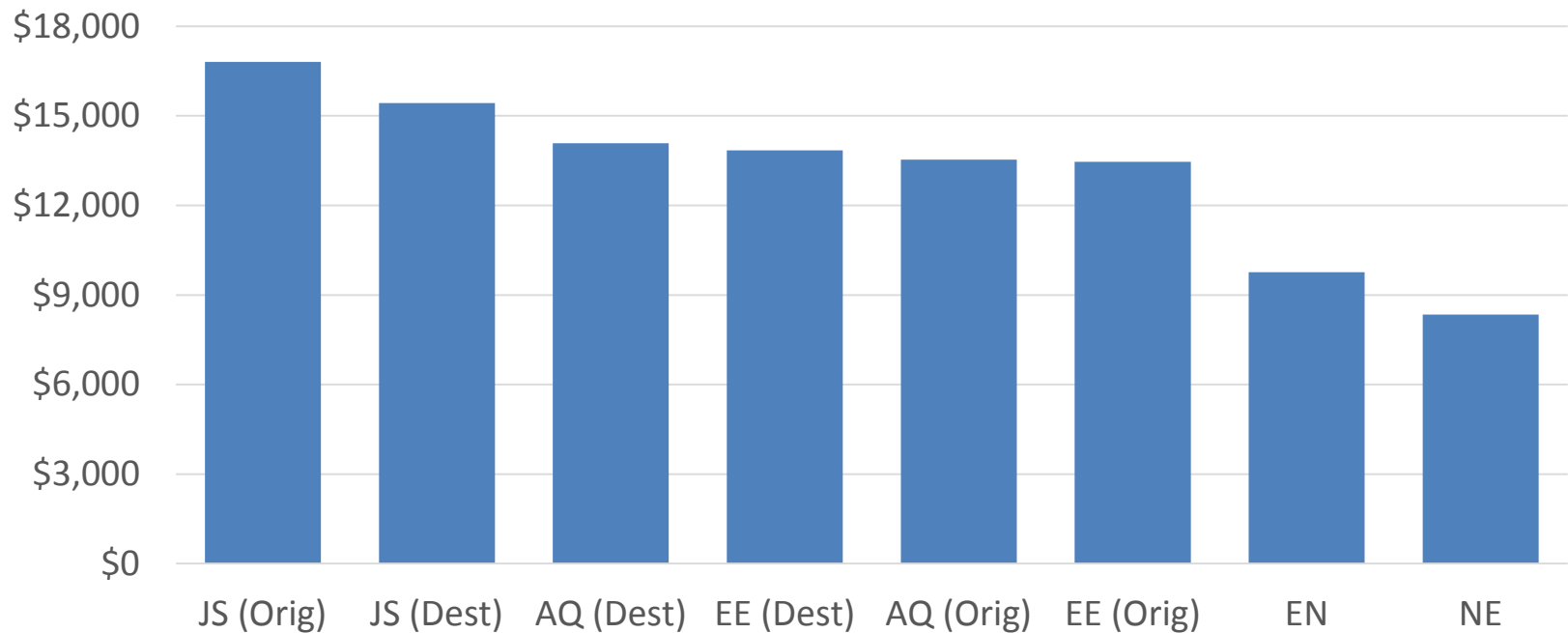
- 51% of all hires in Virginia come from workers that were previously not employed. This decreases to 44% of all hires when looking only at hires into Manufacturing jobs.
- Workers hired into Virginia jobs from out-of-state primarily go into Professional/Scientific/Technical Services, Administrative/Support/Waste Management/Remediation Services, Retail Trade, and Accommodation/Food Services.
- Workers flowing into Virginia from the District of Columbia are more likely to be hired into jobs in Professional/Scientific/Technical Services than those from other origin states. Workers flowing from West Virginia into Virginia are more likely to be hired into Construction, while workers flowing into the state from North Carolina are more likely to be hired into jobs in Administrative/Support/Waste Management/Remediation Services.

(Source: J2J Explorer's Job-to-Job Flows data, 2015 Q2)

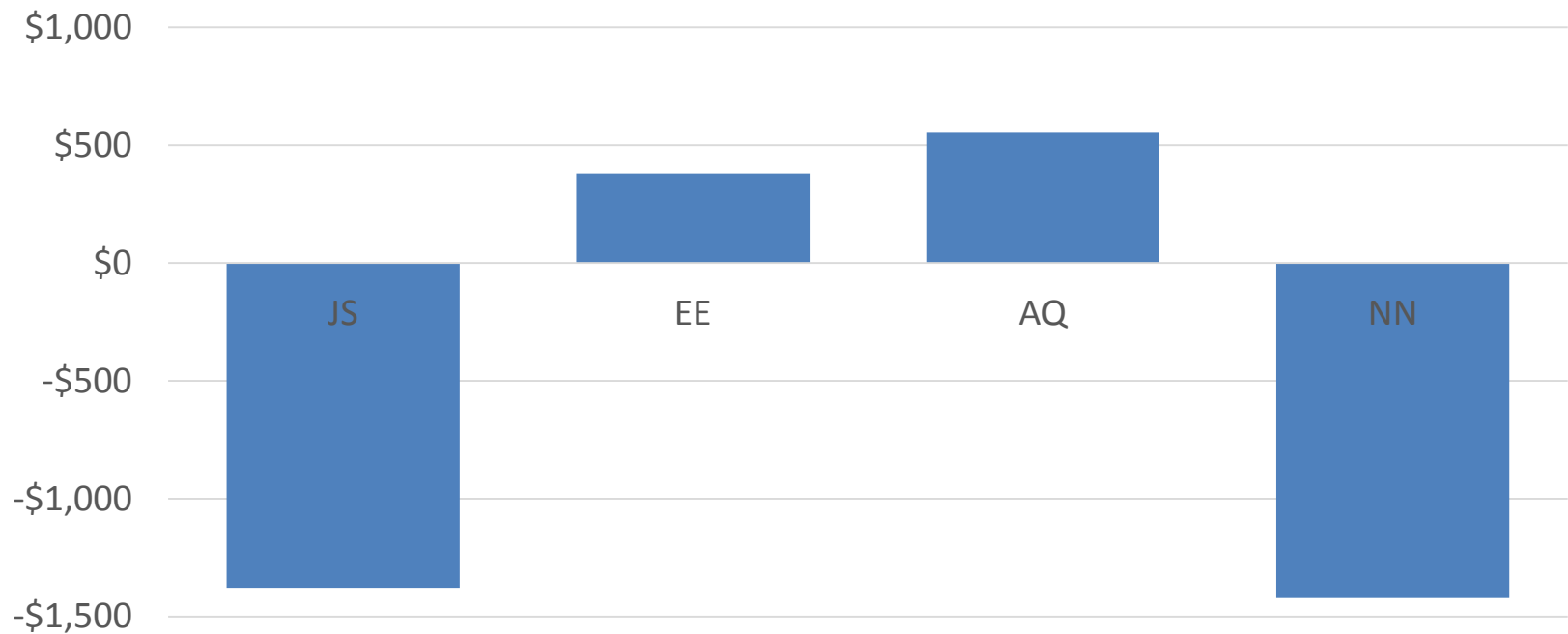
Spend a few minutes building a profile of J2J flows into/out of your state of choice

Demo on Using New Earnings Measures

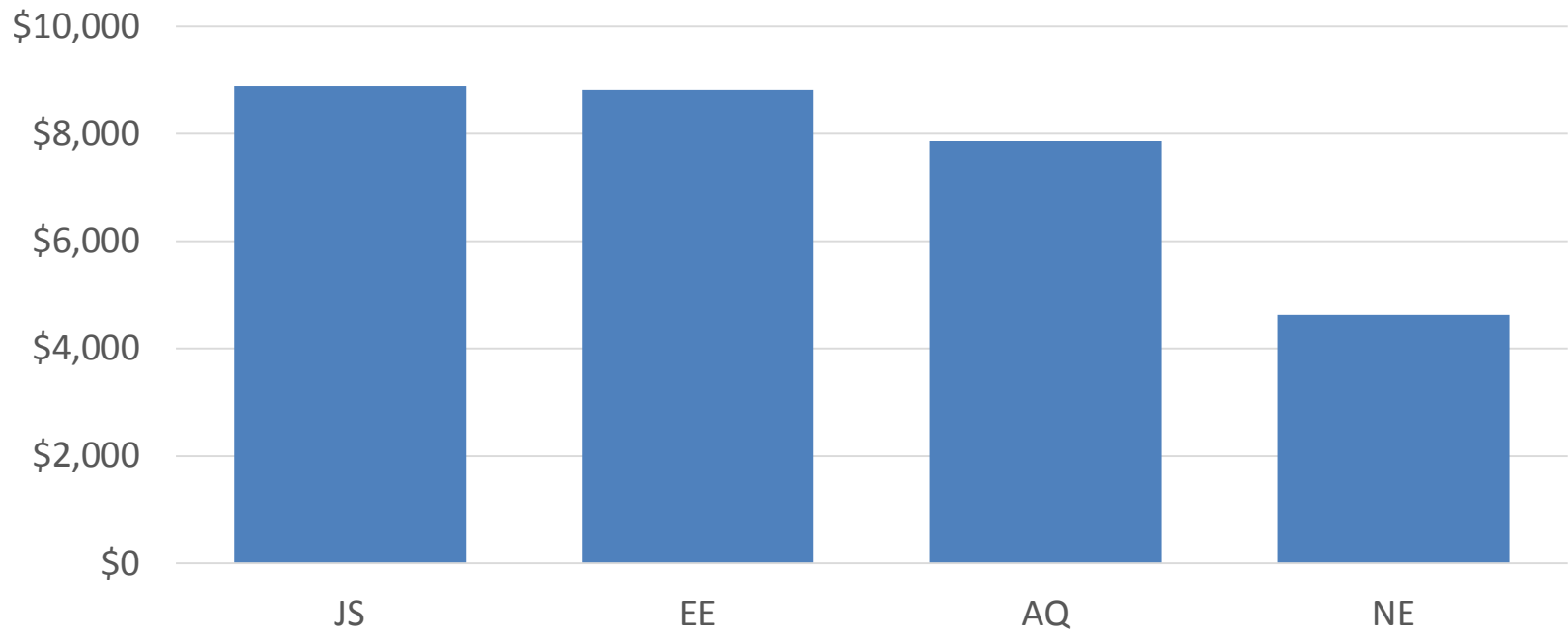
2016 Q1 Average Earnings in MD



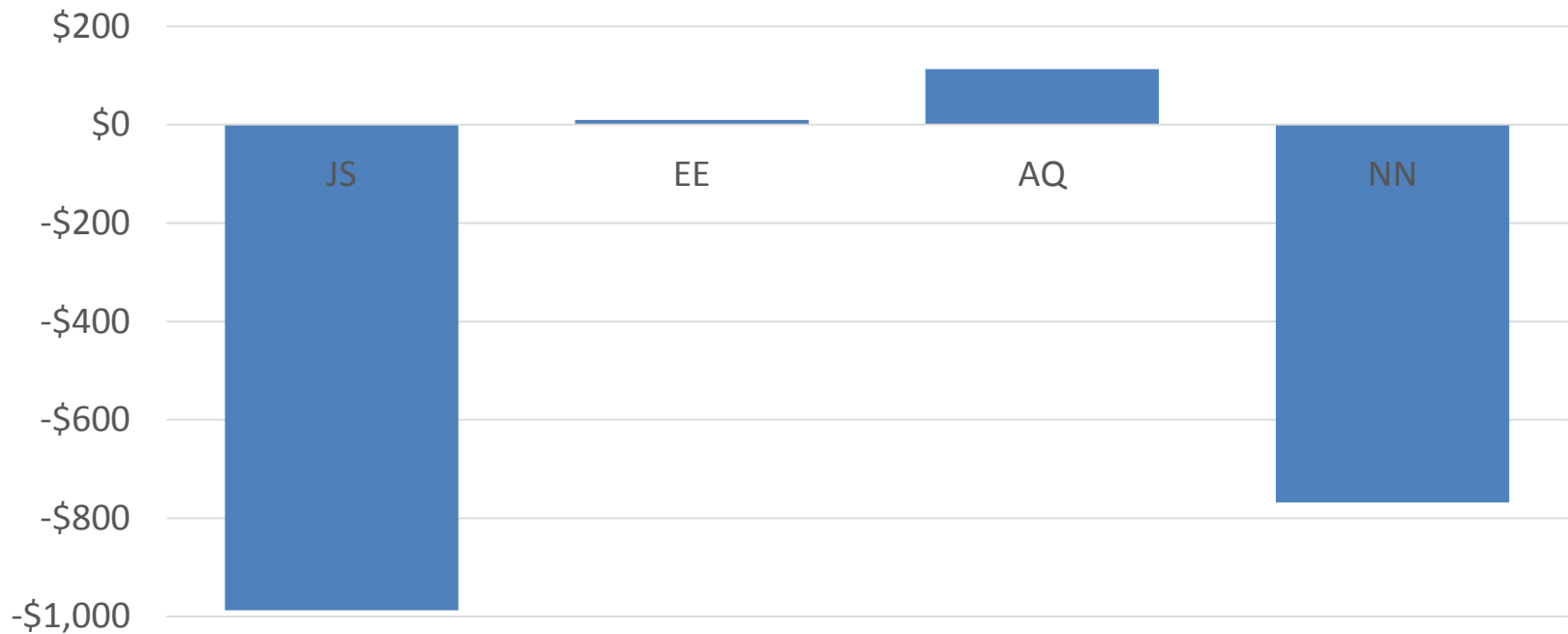
2016 Q1 Average Earnings Change in MD



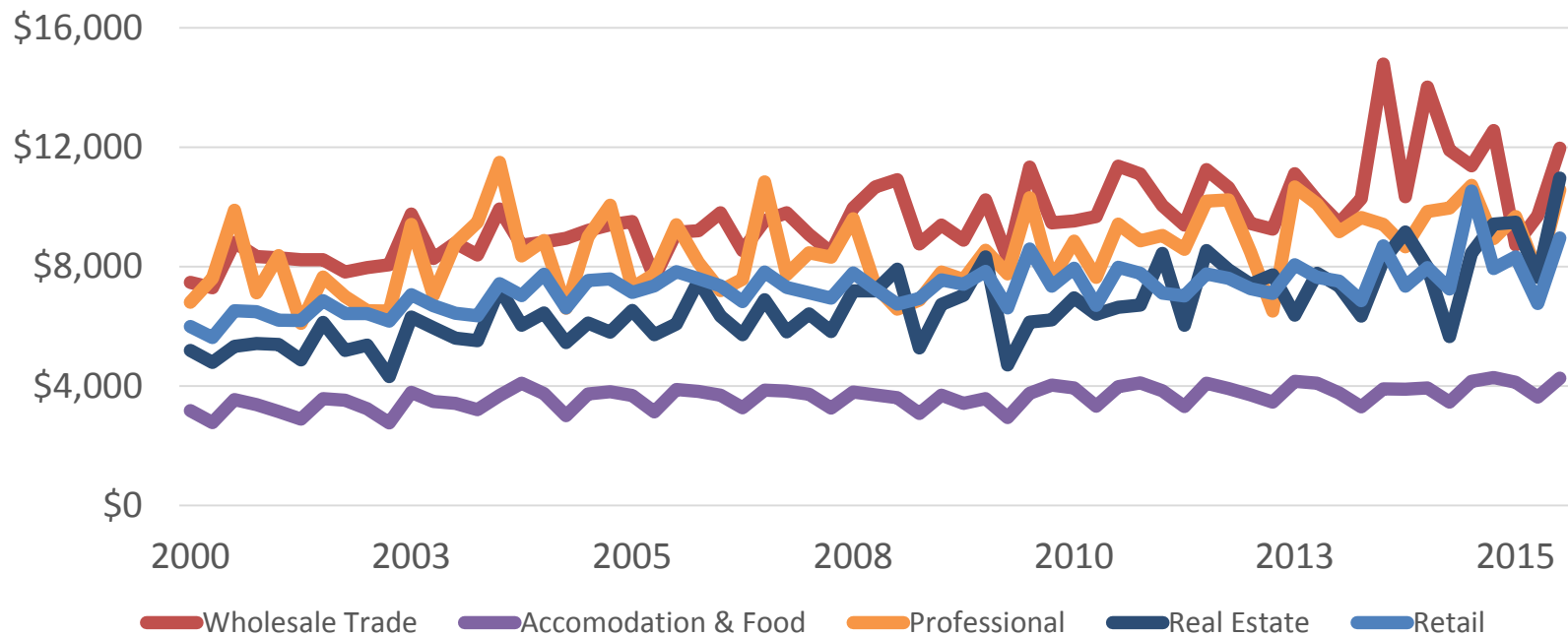
2016 Q1 MD (Destination) Earnings in Retail



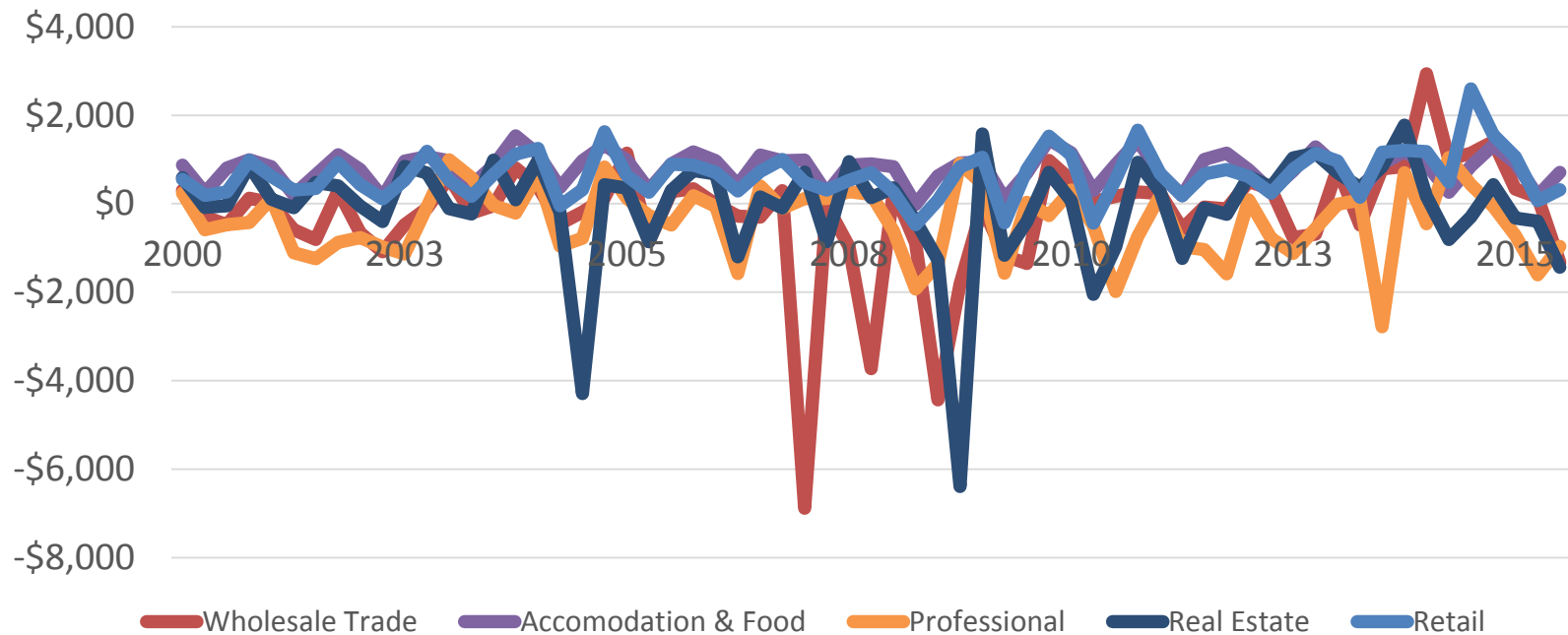
2016 Q1 MD Earnings Change in Retail



(Destination) Earnings for MD Retail Workers by Origin Industry



Earnings Change for MD Retail Workers by Origin Industry



Coming Soon...

- Application Updates:
 - New data (metro areas, earnings, data crossings)
 - Improved transitions between visualizations
 - More/Better Exports
 - Normalization/Share of Total
 - J2J Module in LED Extraction Tool
- More J2J Data Detail:
 - NAICS 3-digit Subsectors (longer term research project)

Useful Links

- **J2J Explorer**
 - [Help Pages](#)
 - [Analysis Guides](#)
 - [FAQs](#)
- **Raw J2J Data**
 - [Data Homepage](#)
 - [J2J QuickStart Guide](#)
 - [J2J Data Notices](#)
 - [J2J Indicator Relatedness Diagram](#)
 - [Current Data Schema](#)
 - [HTTP Data Access](#)

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