

Longitudinal Employer-Household Dynamics Job Related Data Tools

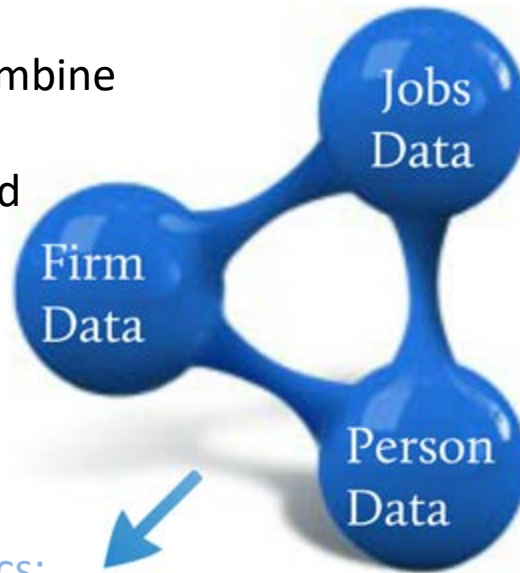
Tennessee State Data Users Conference
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Center for Economic Studies, U.S. Census Bureau

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

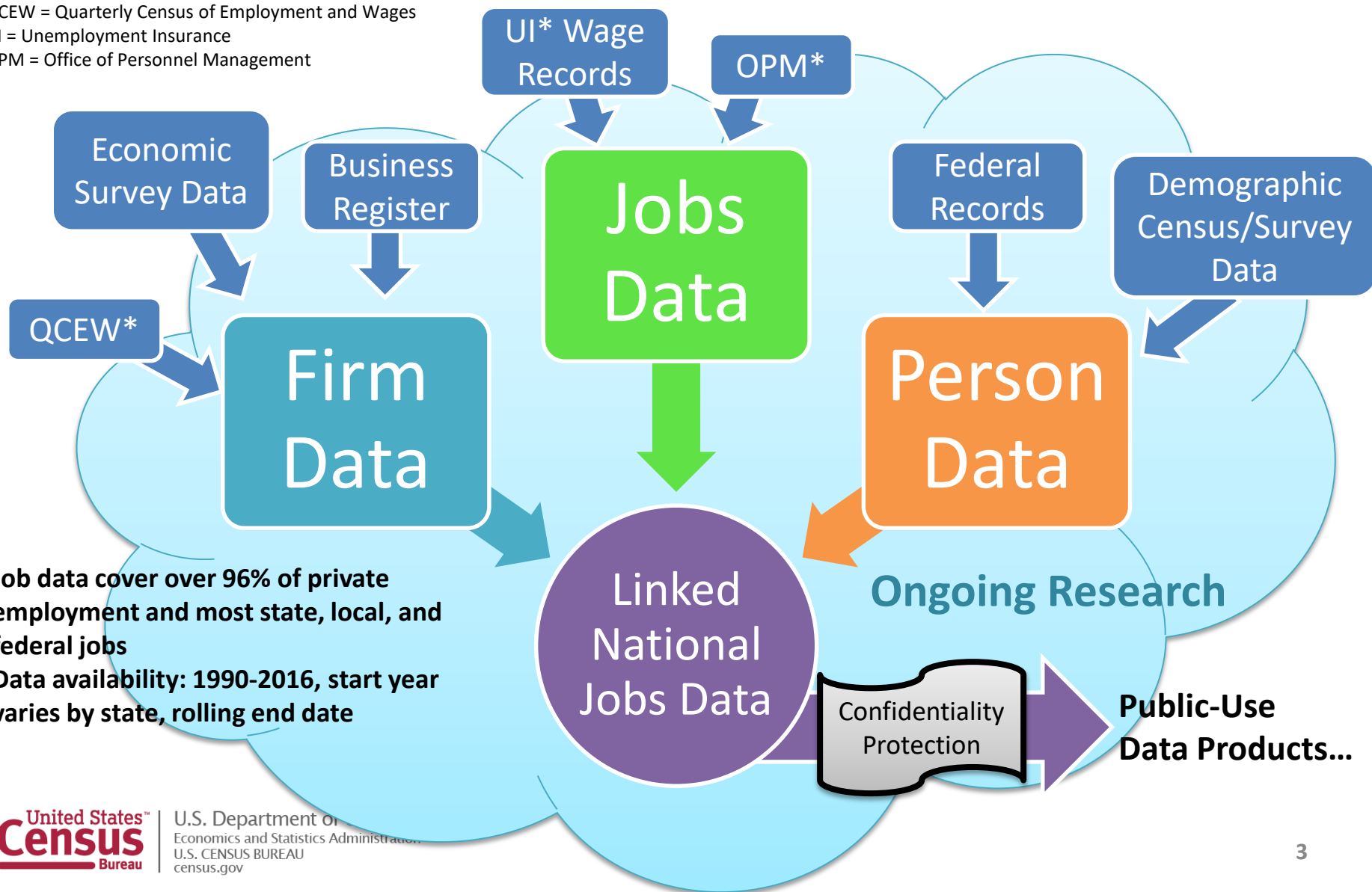
Public use statistics:
Quarterly Workforce Indicators
LODES/OnTheMap
Job-to-Job Flows

LEHD Data Infrastructure

QCEW = Quarterly Census of Employment and Wages

UI = Unemployment Insurance

OPM = Office of Personnel Management

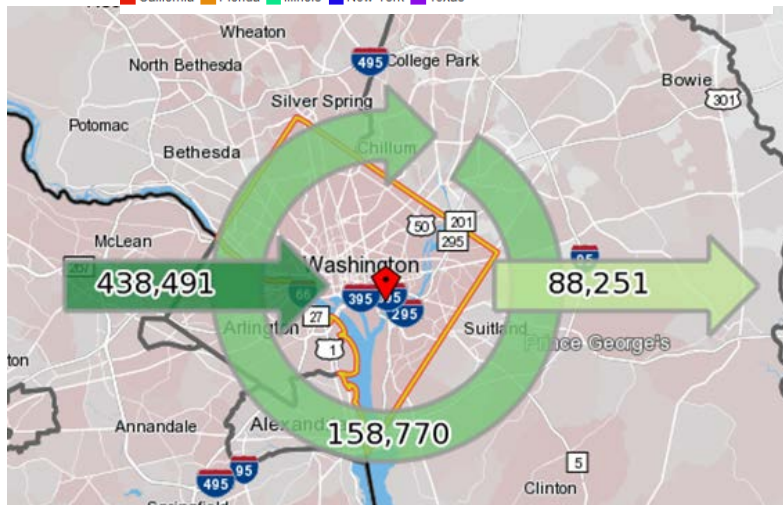
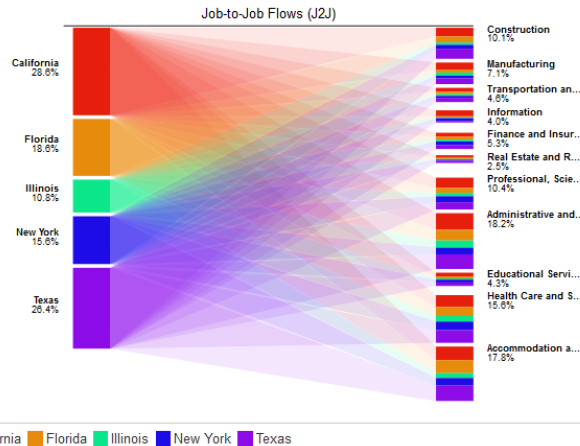


Data Products

- Quarterly Workforce Indicators (QWI)
 - 32 indicators by
 - Industry (NAICS 2, 3, and 4-digit), Firm Age, Firm Size
 - Worker Age, Race, Ethnicity, Sex, Education
 - State, County, CBSA, WIB Area
 - >150 Million job records processed each quarter
 - Longitudinal series starts in 1990 for some states
- LEHD Origin-Destination Emp. Statistics (LODES)
 - Connects a job/worker's employment and residential locations
 - Data at census block detail
 - Less characteristic detail than QWI
- Job-to-Job Flows (J2J) - Beta
 - Flows between jobs as well as into/out of nonemployment

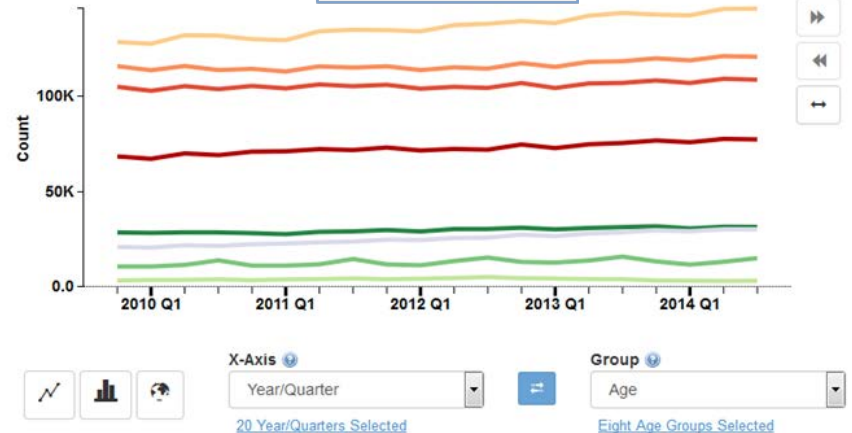
Data Tools

J2J Explorer

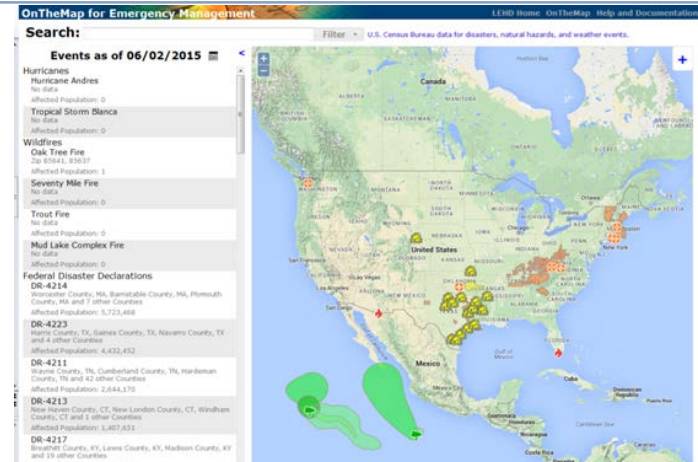


OnTheMap

QWI
Explorer

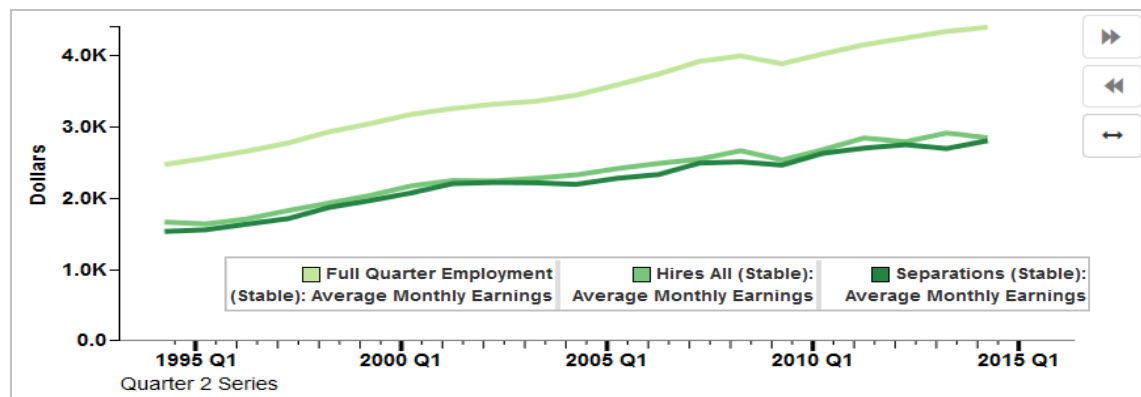


OnTheMap for Emergency Management

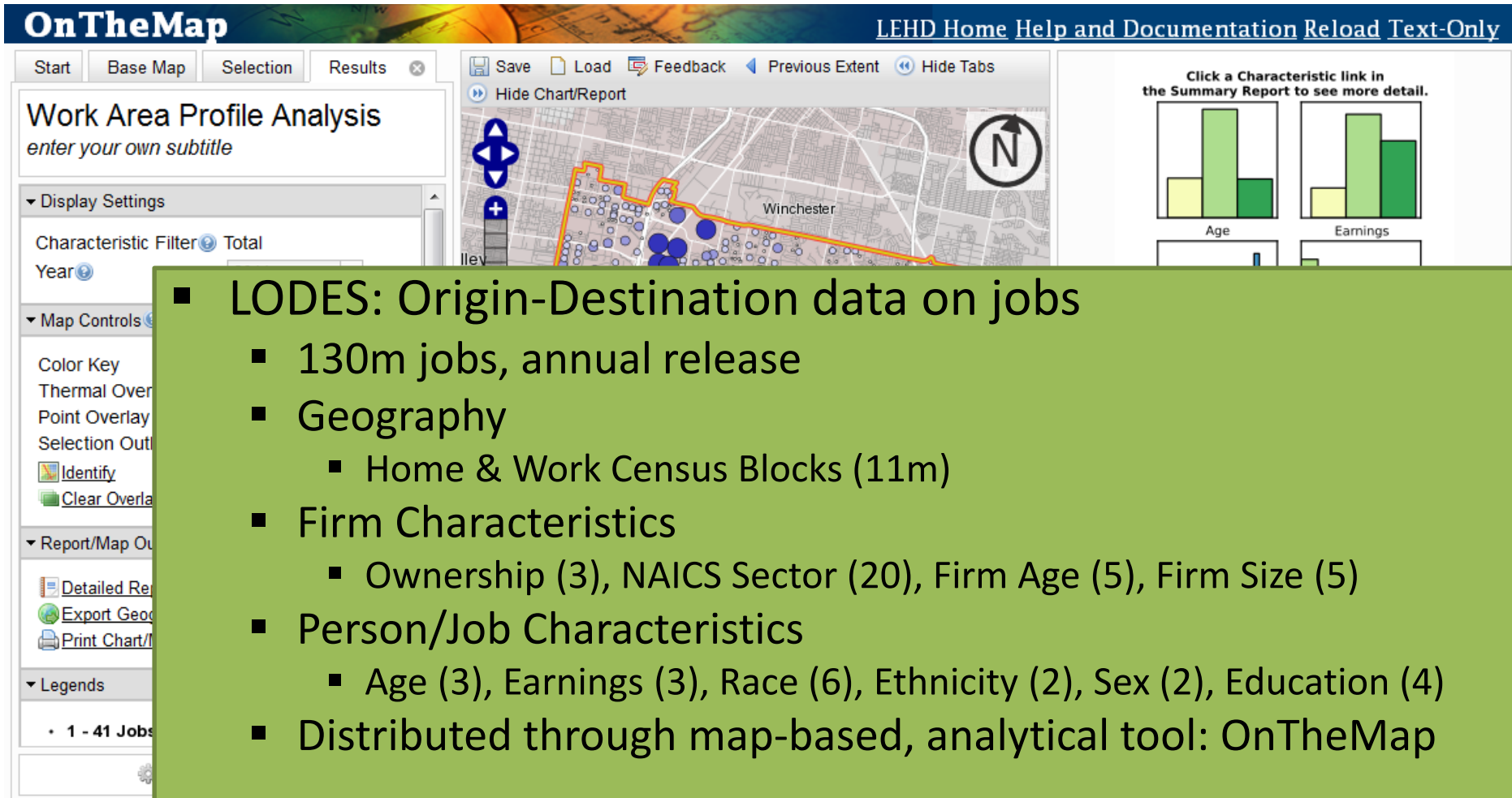


Why are LED Data Tools Important?

- Accessibility
- “Explorability”
- Provide context
- Visualizations lead to insight
- Promote/market the data
- Provide “value-add” for our state partners



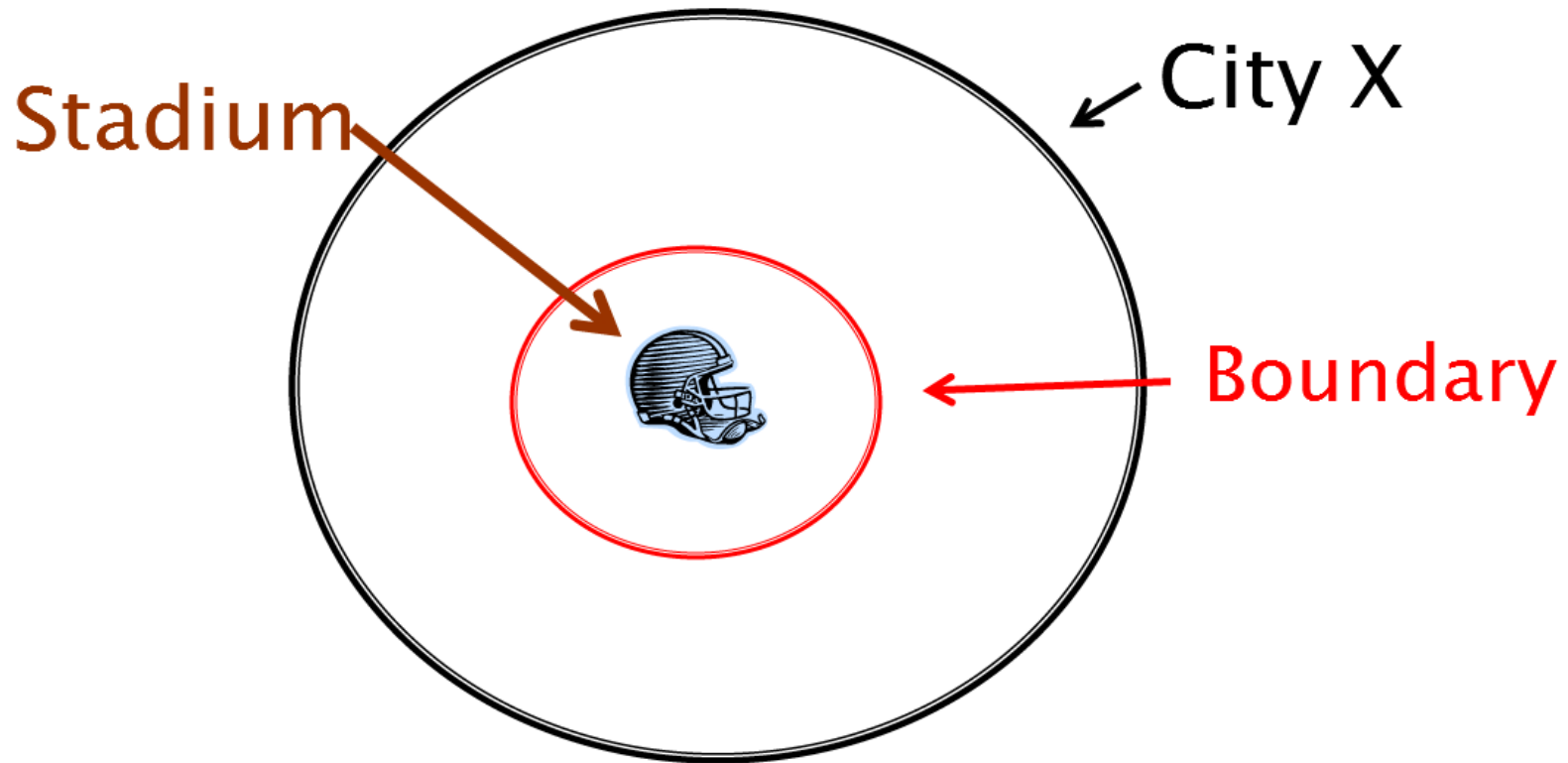
LODES/OnTheMap



[Privacy Policy](#) | [2010 Census](#) | [Data Tools](#) | [Information Quality](#) | [Product Catalog](#) | [Contact Us](#) | [Home](#)

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

If you build it will they come?

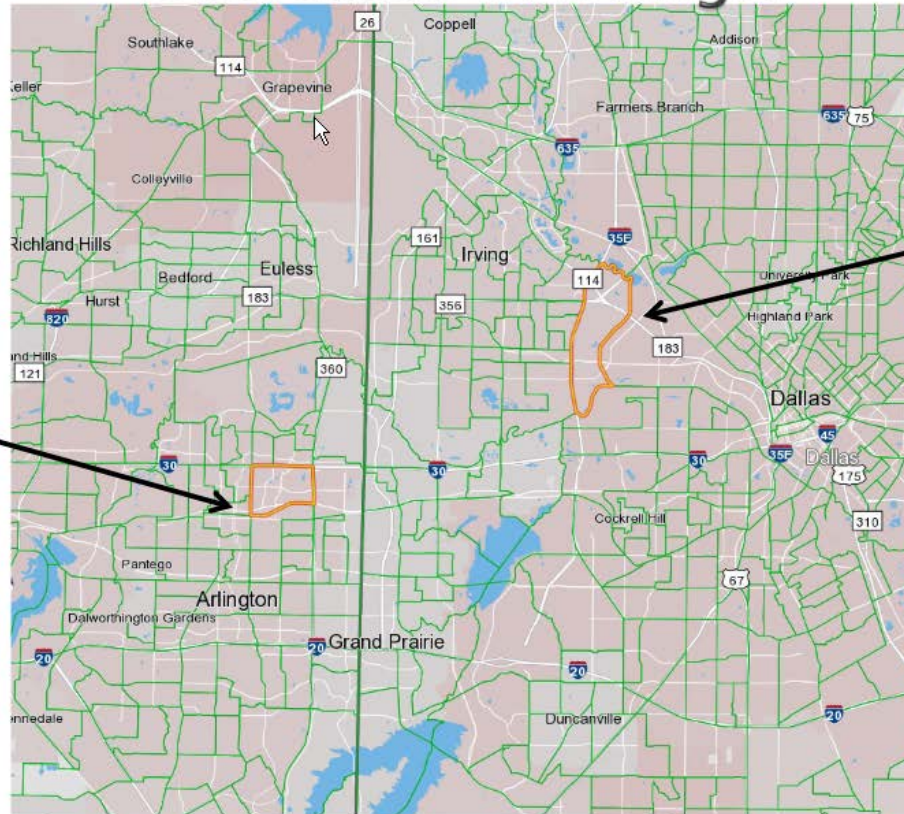


**Does employment increase in the red area
relative to the city?**

Dallas/Ft. Worth, Texas MSA

Increases in Arlington and Decreases in Irving??

AT&T
Stadium
Arlington,
TX



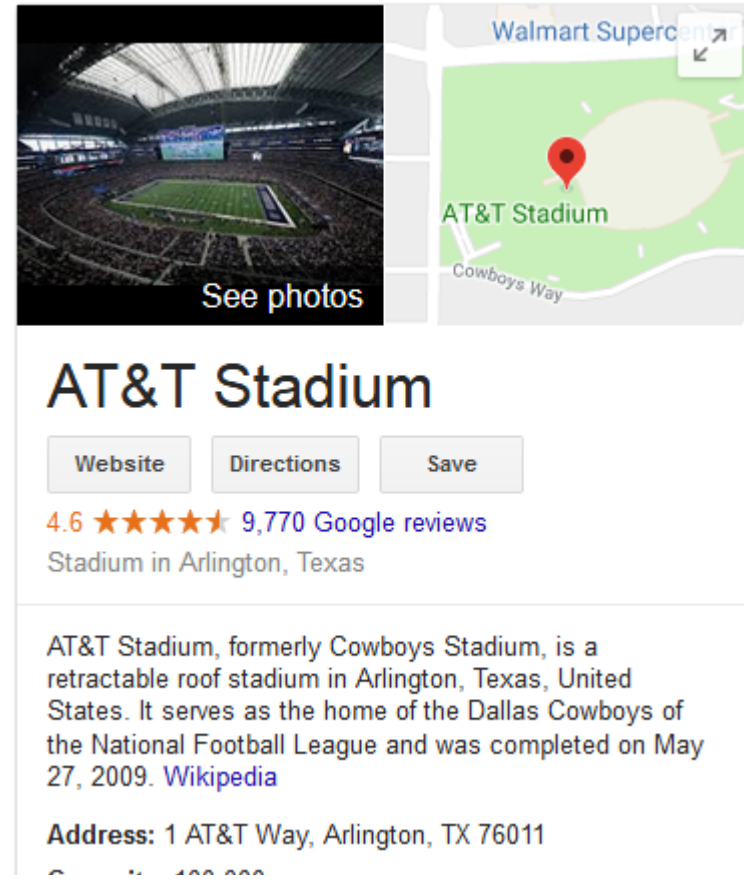
Texas
Stadium
Irving, TX

Irving/Arlington

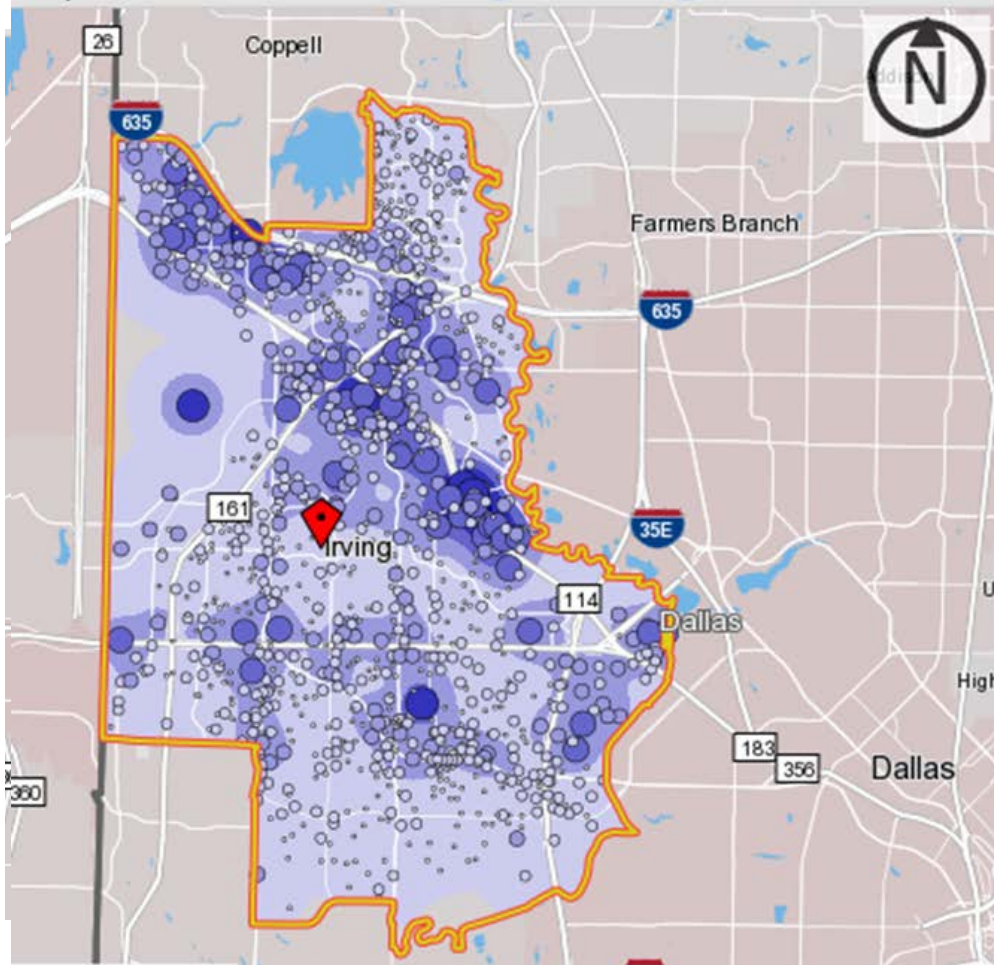
2008



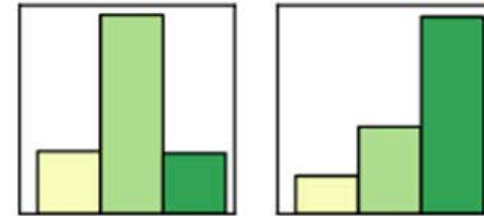
2009



Irving

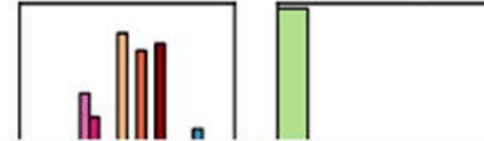


Click a Characteristic link in the Summary Report to see more detail.



Age

Earnings



View as

Bar Chart

Total Primary Jobs

2015

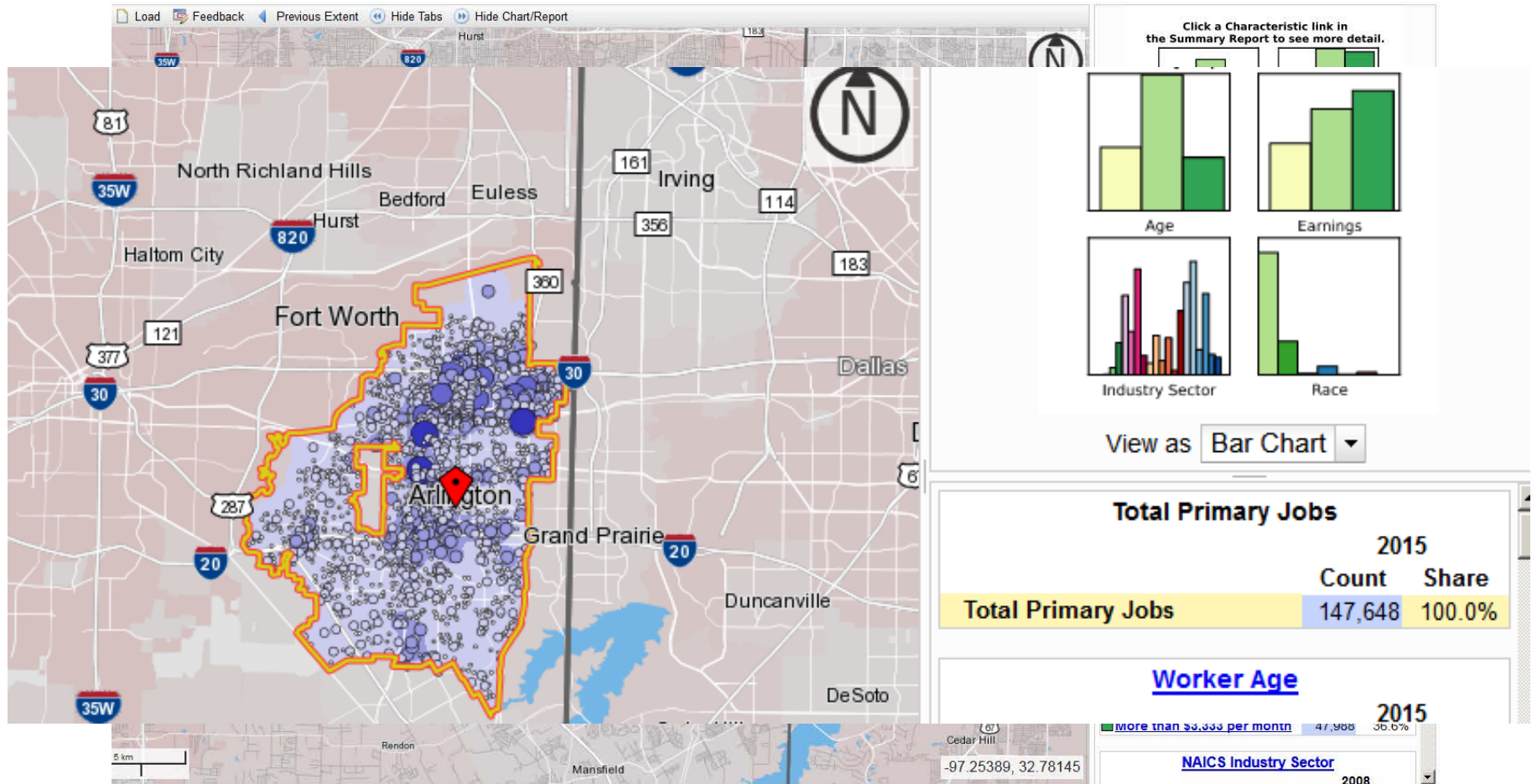
	Count	Share
Total Primary Jobs	216,329	100.0%

Worker Age

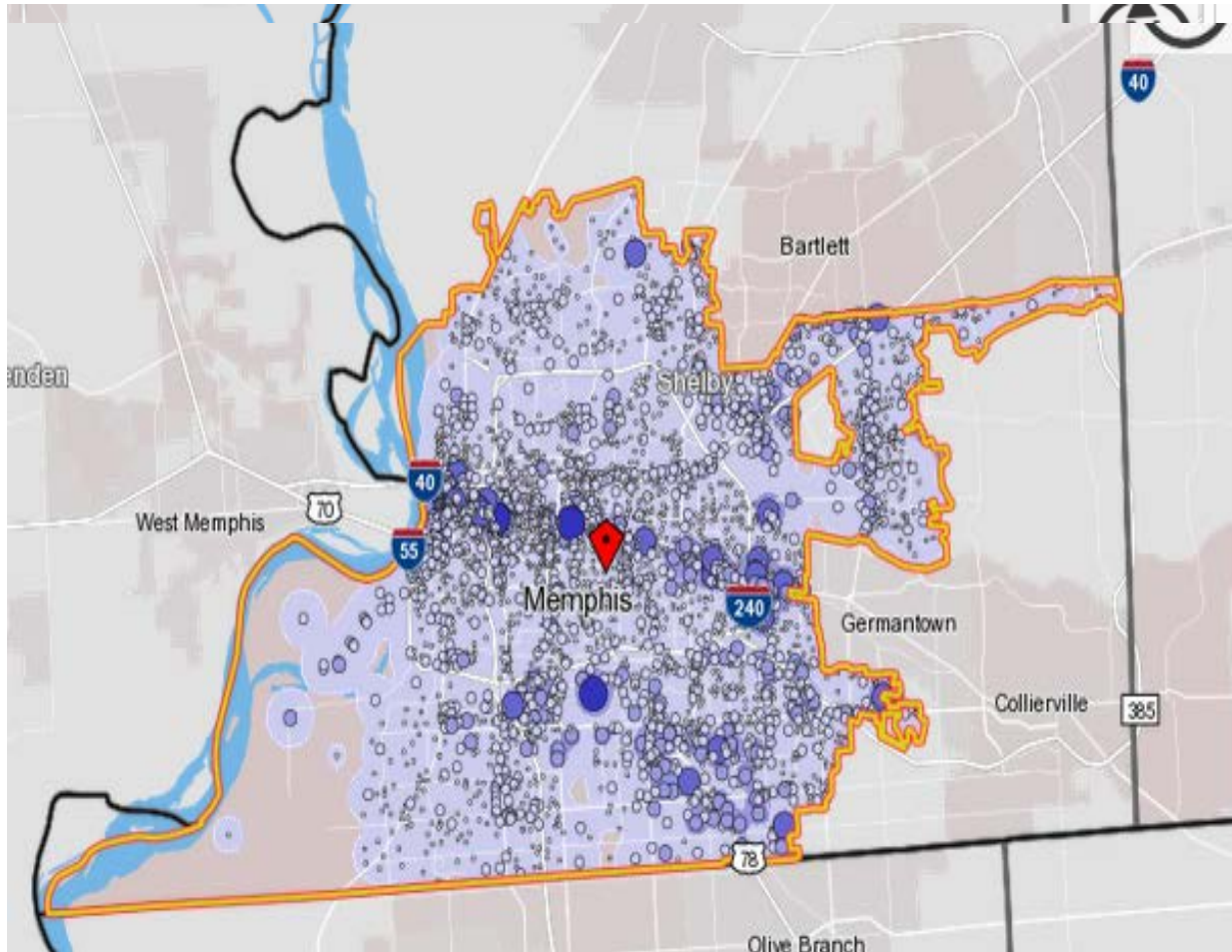
2015

	Count	Share
Age 29 or younger	42,008	19.4%
Age 30 to 54	133,597	61.8%
Age 55 or older	40,724	18.8%

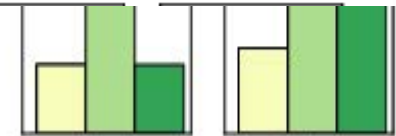
Arlington



Memphis

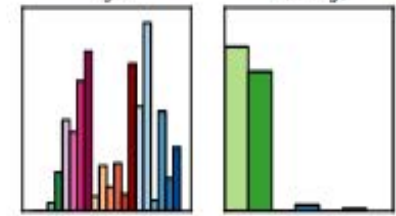


View the summary report to see more detail.



Age

Earnings



Industry Sector

Race

View as Bar Chart

Total Primary Jobs

	2015	
	Count	Share
Total Primary Jobs	385,287	100.0%

Worker Age

	2015	
	Count	Share
Age 29 or younger	85,181	22.1%

Dr. Mitchell's Results

Conclusions

- ▶ Building stadiums and arenas probably don't increase the number of jobs in the city
- ▶ There is some evidence that building stadiums and arenas might change the distribution of employment within a city
- ▶ High wage employment, total employment, and sportscentric employment does grow at a faster rate relative to identical state level measures
- ▶ Cities might be able to use stadiums and arenas to 'fix' blight or to bring 'jobs' to certain parts of the city that might otherwise be devoid of employment growth



OnTheMap for Emergency Management



Hurricanes, Floods,
Winter Storms



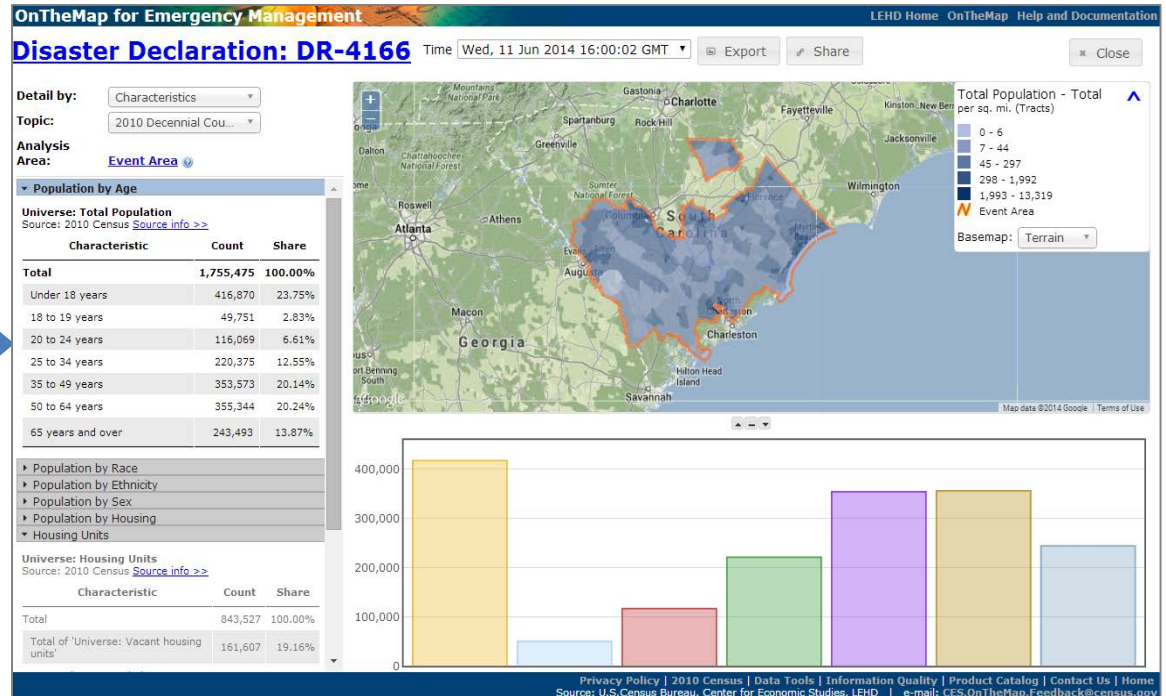
Disaster Areas



Wildfires



Demographic &
Economic Data

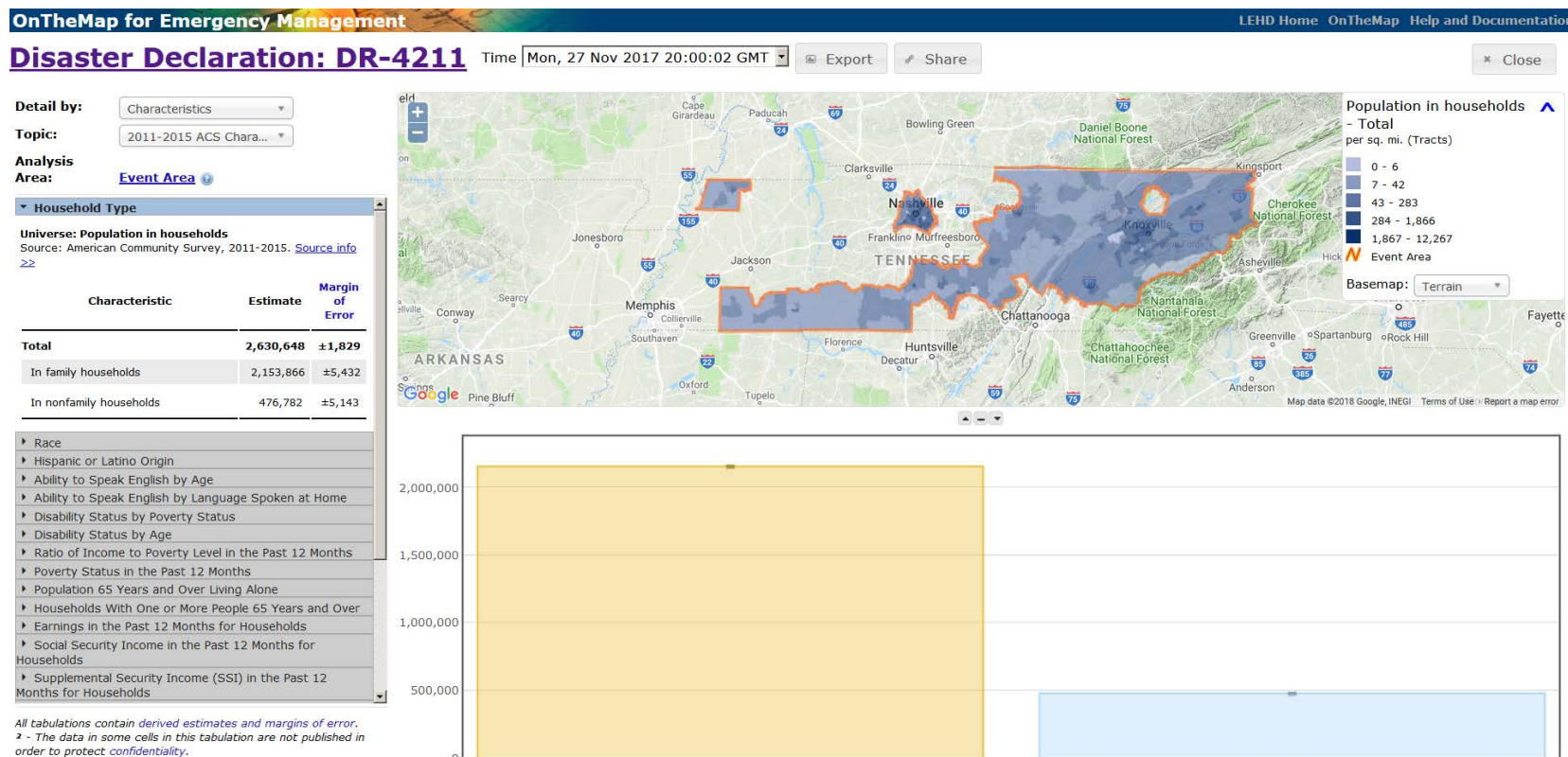


New Public Data Service for Emergency Preparedness & Response

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

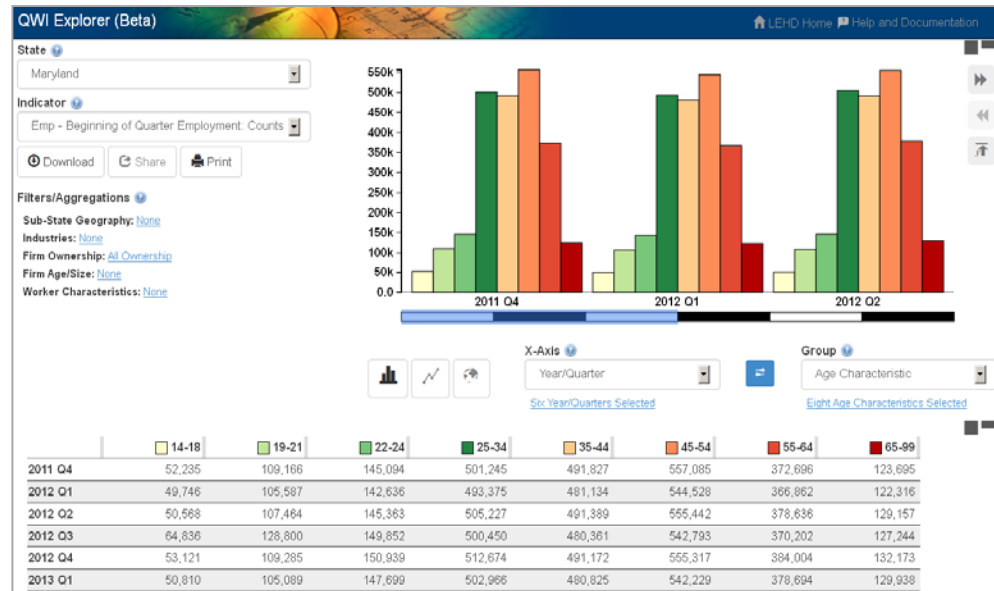


OnTheMap for Emergency – DR-4211 Severe Winter Storm and Flooding



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)

Diversity in Greater Minnesota

Table 3: Health Care and Social Assistance Jobs by Race or Origin, 1995-2014

	Twin Cities			Greater Minnesota		
	Jobs, 1995	Jobs, 2014	Change from 1995-2014	Jobs, 1995	Jobs, 2014	Change from 1995-2014
All Races	139,870	242,620	73.5%	131,509	212,581	61.6%
White Alone	125,153	183,386	46.5%	128,388	199,429	55.3%
Black or African American	9,244	37,164	301.0%	528	4,933	834.3%
American Indian or Alaska Native	1,033	1,732	67.7%	823	2,264	175.1%
Asian or Other Pacific Islander	3,250	16,081	394.8%	1,100	3,887	253.4%
Two or More Races	1,189	4,256	257.9%	668	2,068	209.6%
Hispanic or Latino	2,482	8,753	252.7%	1,281	5,080	296.6%

Source: U.S. Census Bureau, LEHD, Quarterly Workforce Indicators

Healthcare

QWI Explorer

Geography Level

Tennessee

Indicator

Emp - Beginning of Quarter Employment: Count

Get Data

Share

Get Report

Filters/Aggregations

Time: X-Axis

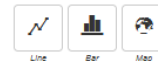
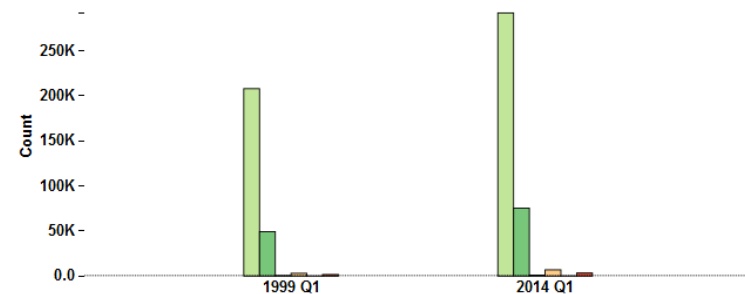
Geography: None

NAICS Sectors: [Health Care and Social Assistance](#)

Firm Ownership: [All Ownership](#)

Firm Age/Size: [None](#)

Worker Characteristics: [None](#)



X-Axis

Quarters

[Two Quarters Selected](#)

☐ Normalize on X-Axis

Group

Race

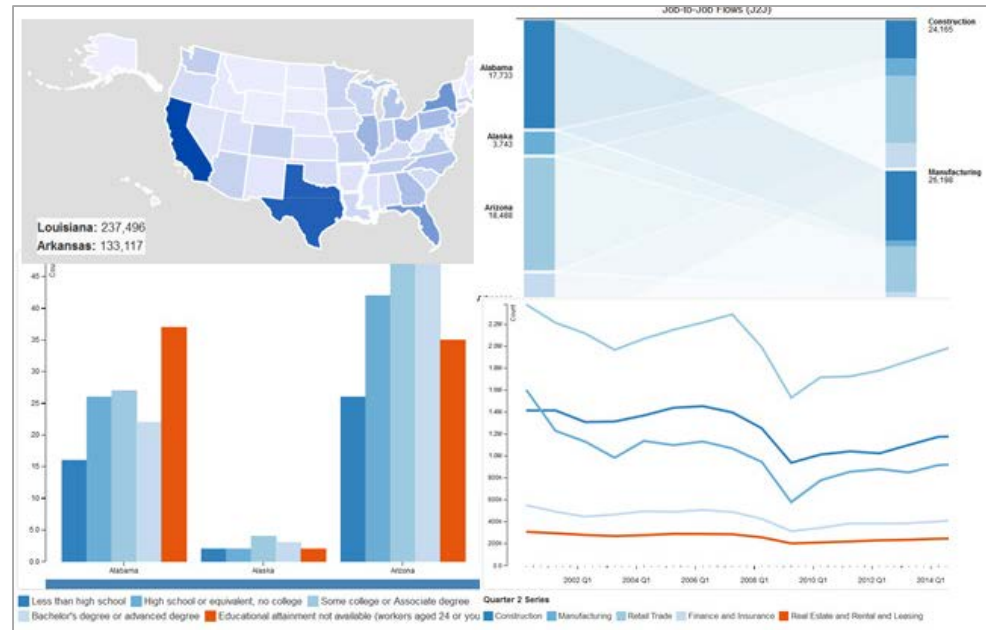
[Six Races Selected](#)

☐ Normalize on Group

	White Alone	Black or African American Alone	American Indian or Alaska Native Alone	Asian Alone	Native Hawaiian or Other Pacific Islander Alone	Two or More Race Groups
1999 Q1	207,880	49,236	609	3,087	77	1,722
2014 Q1	291,884	75,389	955	6,959	194	3,402

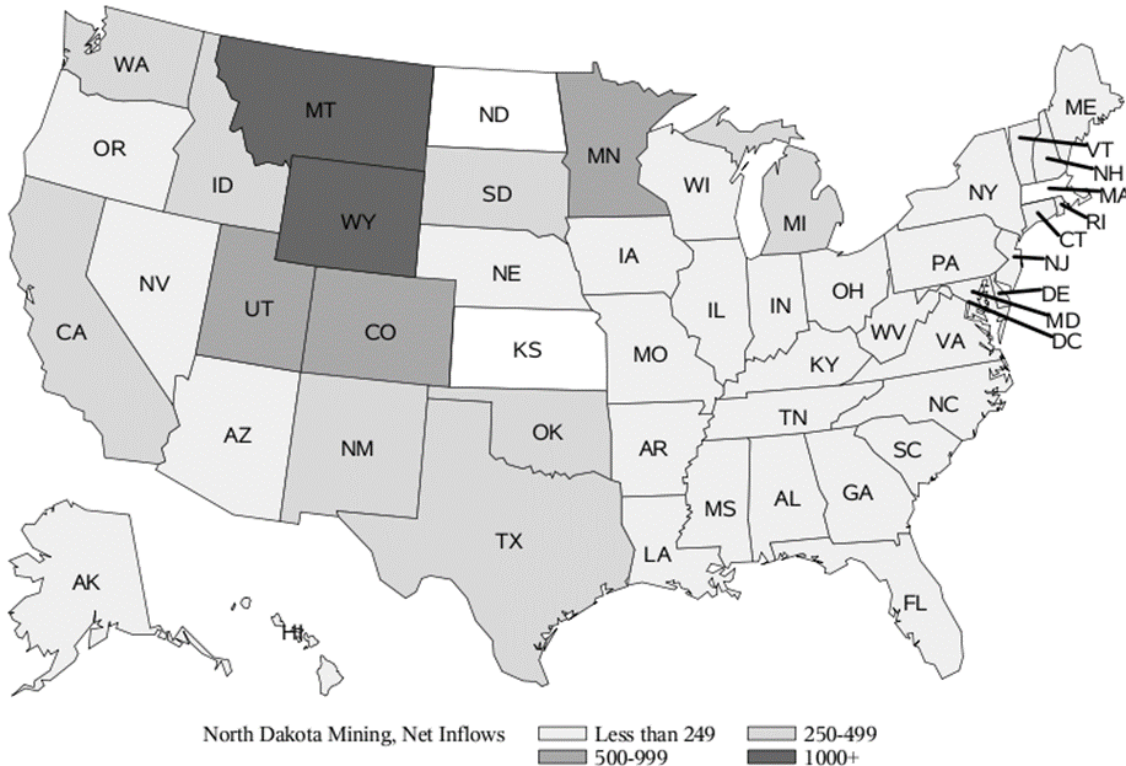
J2J Explorer

- ✓ 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

Net migration of out-of-state workers into the North Dakota mining sector: 2010-2014



Source: U.S. Bureau of Census, Job-to-Job Flows



- J2J gives us a better understanding of reallocation of workers across different geographies



Source: J2J origin-destination data. J2J data is not yet available for Massachusetts and Kansas, data for all other states is present. Net migration of out-of-state workers is hires into the North Dakota mining sector of workers who recently held a job in a different state, minus flows of North Dakota mining workers to jobs in that state.

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 


 North Dakota 

 Mining, Quarrying, and Oil and Gas Extraction 

2. Then Choose an Analysis

Analysis of Job-to-Job Flows

From (Origin Job)


 [Which States?](#)

 [Which Industries?](#)




To (Destination Job)





 North Dakota

 Mining, Quarrying, and Oil and Gas Extraction

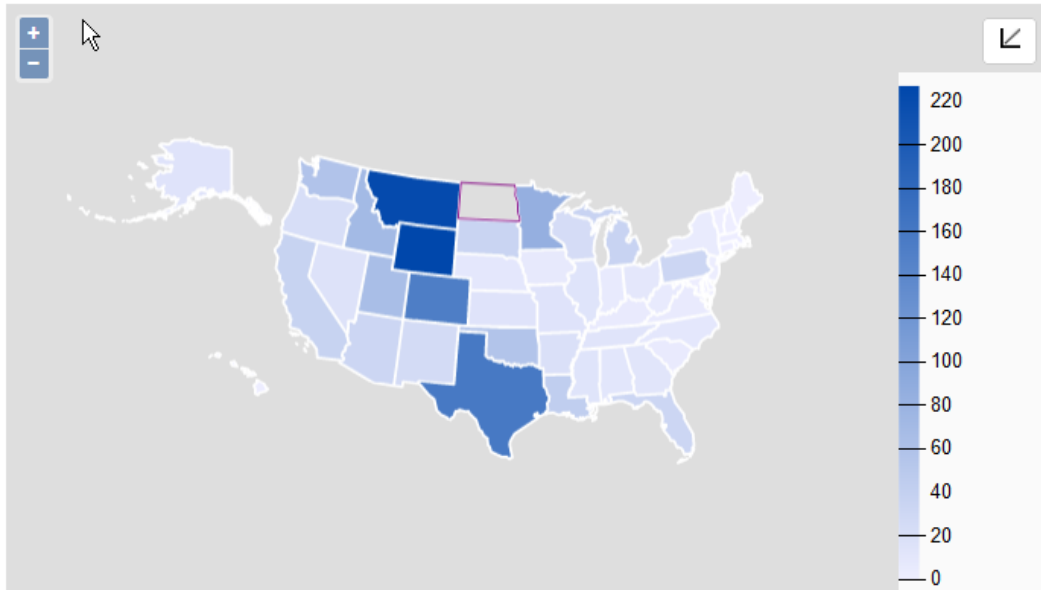
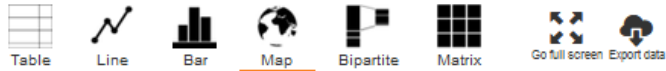
Analysis of Hires Over Time

 [Are hires to jobs in North Dakota Mining, Quarrying, and Oil and Gas Extraction 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?](#)

J2J Explorer



Filtered Destination State

Job-to-Job Flows from 50 States to Mining, Quarrying, and Oil and Gas Extraction in North Dakota

Average of Q3 Series 2010 - 2014

Indicator

Job-to-Job Flows (J2J)

Job flows with a short or no observed nonemployment spell

Geography Level

Origin State

[Alabama](#), [Alaska](#), [Arizona](#),
[Arkansas](#), [California](#) and 45
[Others](#)

Filters

Time

Year/Quarter

[2014 Q3](#), [2013 Q3](#), [2012 Q3](#),
[2011 Q3](#), [2010 Q3](#)

Firm Characteristics

Origin NAICS Sector

All

Destination NAICS Sector

[Mining, Quarrying, and Oil and Gas Extraction](#)

Geography

Destination State

North Dakota

Clear All Notices

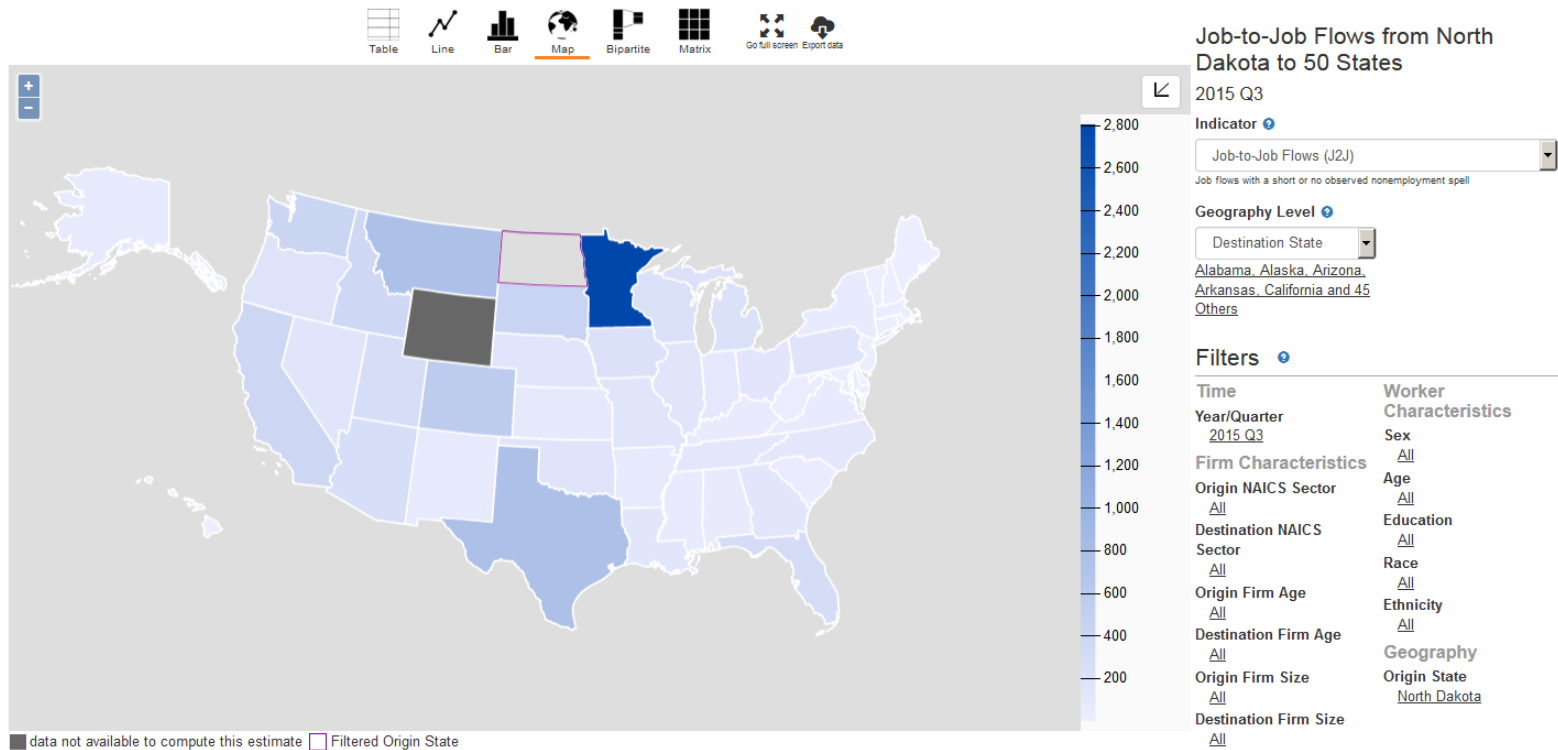
Average of Multiple Quarters Shown

Consider selecting a single quarter in the Year/Quarter filter to see data for a point-in-time.

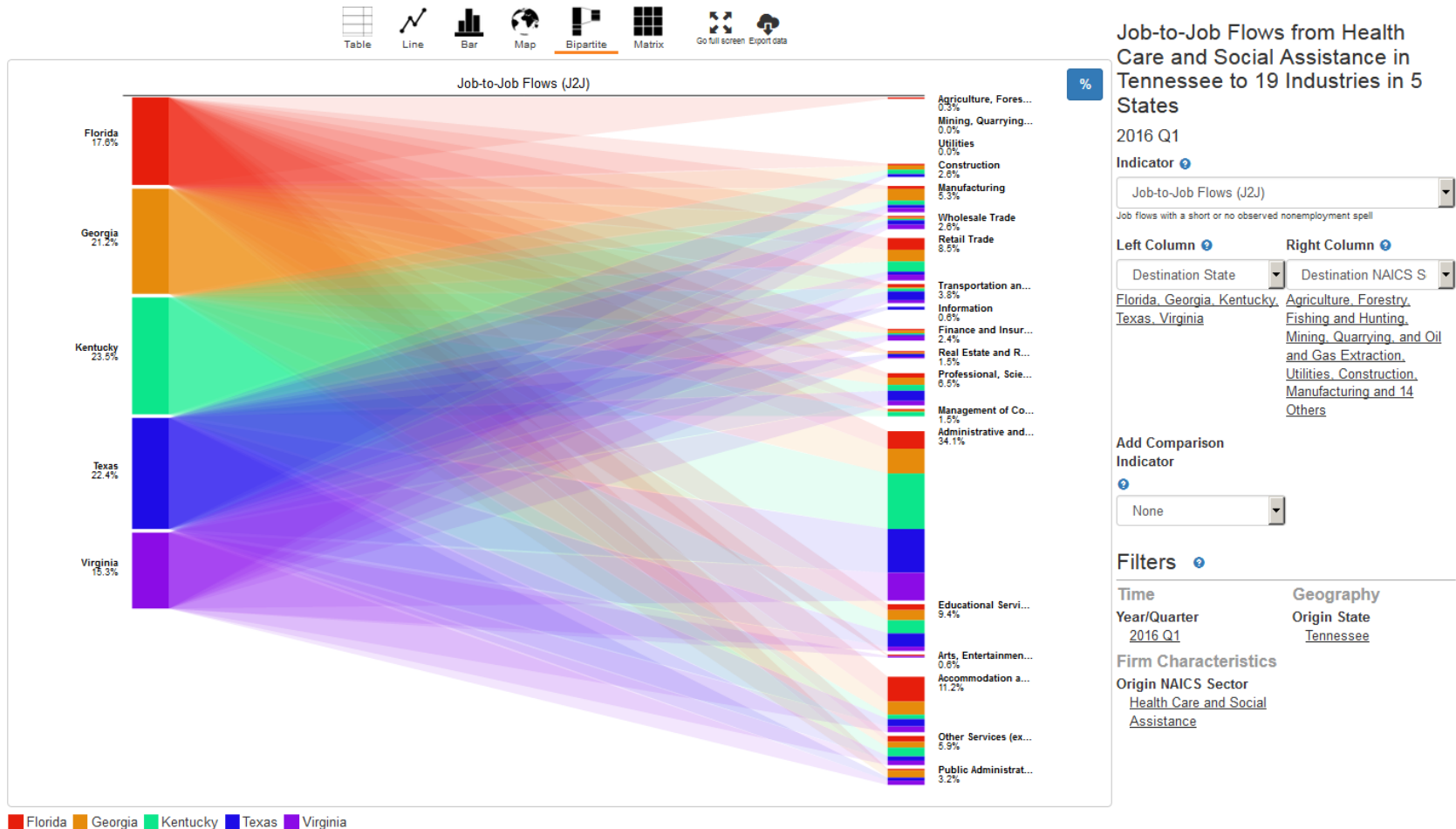
Privacy Policy | 2010 Census | Data Tools

Source: U.S. Census Bureau, Center for Economic and Policy Research

Separation From



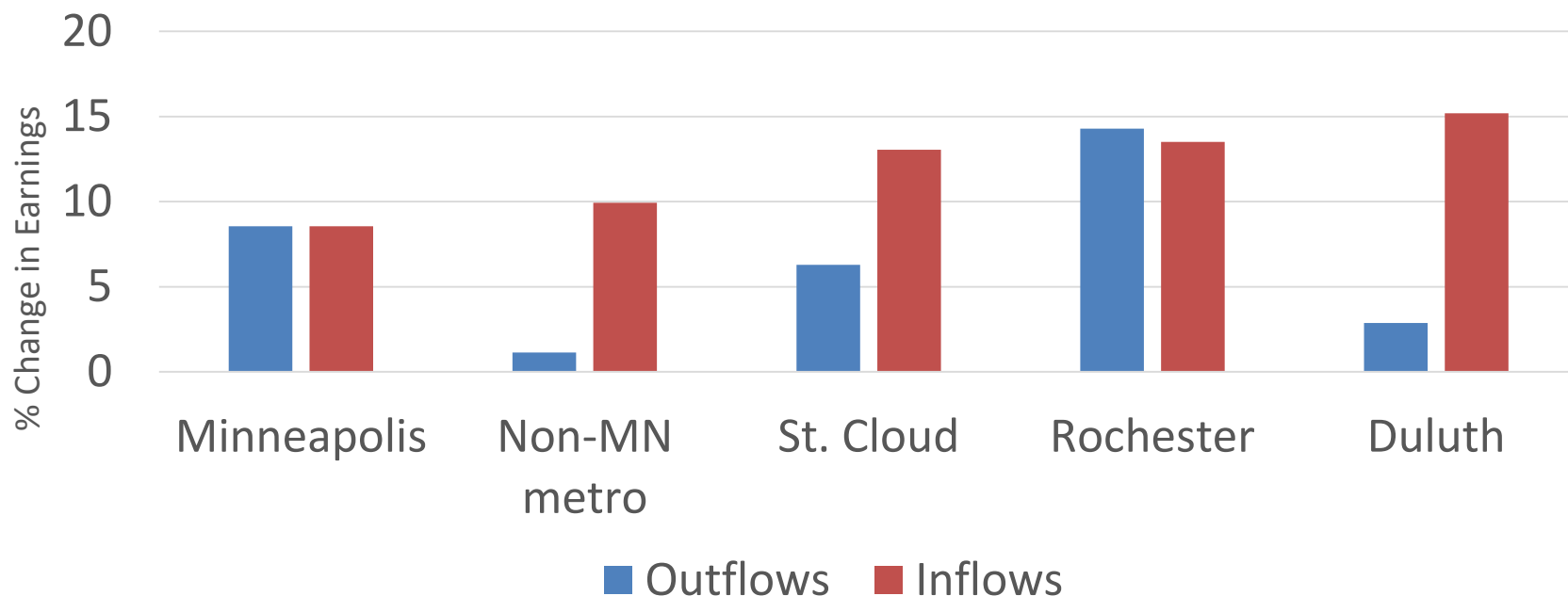
Separation from Health Care and Social Assistance in Tennessee



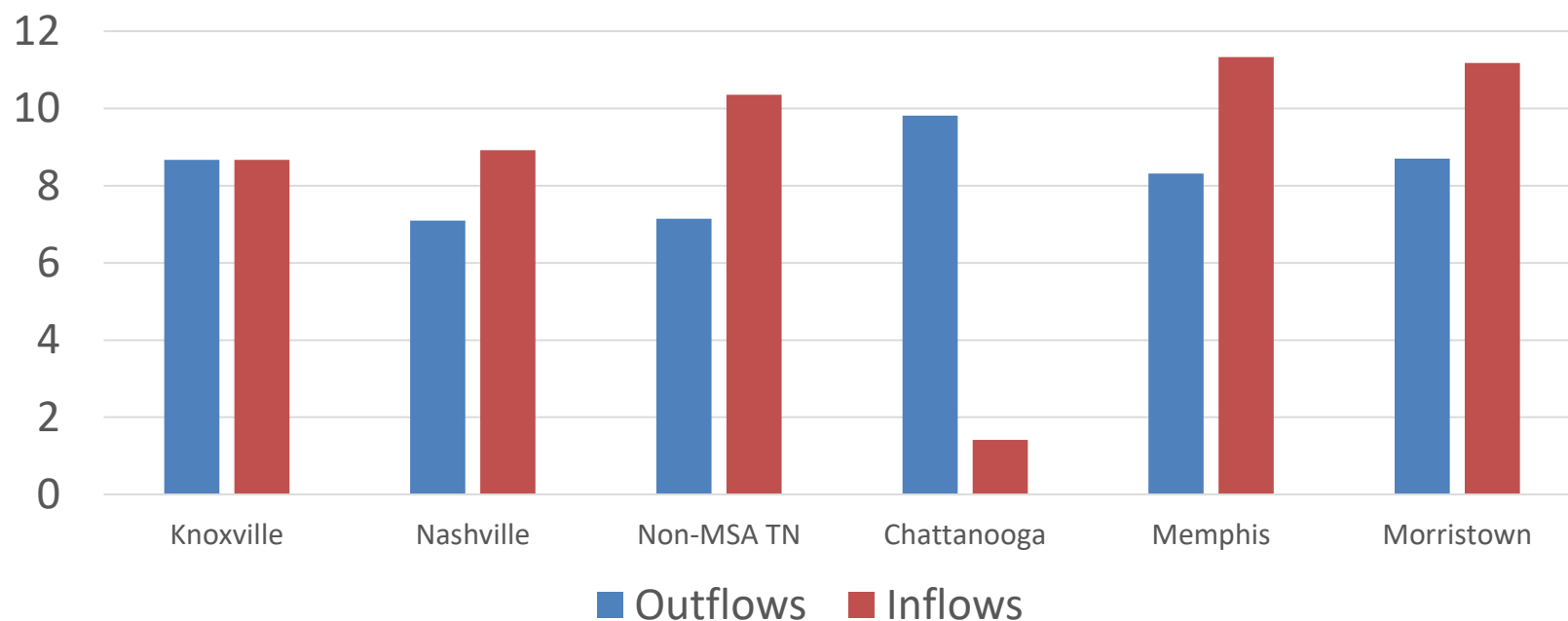
New Data and Tools Released

- New LODES data release
 - 2015 data
- Job-to-Job Flows v2.0
 - New metro-area tabulations
 - New earnings variables
 - More detailed cross-tabulations
- J2J Explorer
 - New tool to analyze Job-to-Job Flows data

Earnings increased more for job changers whose new jobs were in Minneapolis



Earnings increased more for job changers whose new jobs were in Knoxville.



What's New in LEHD's Applications

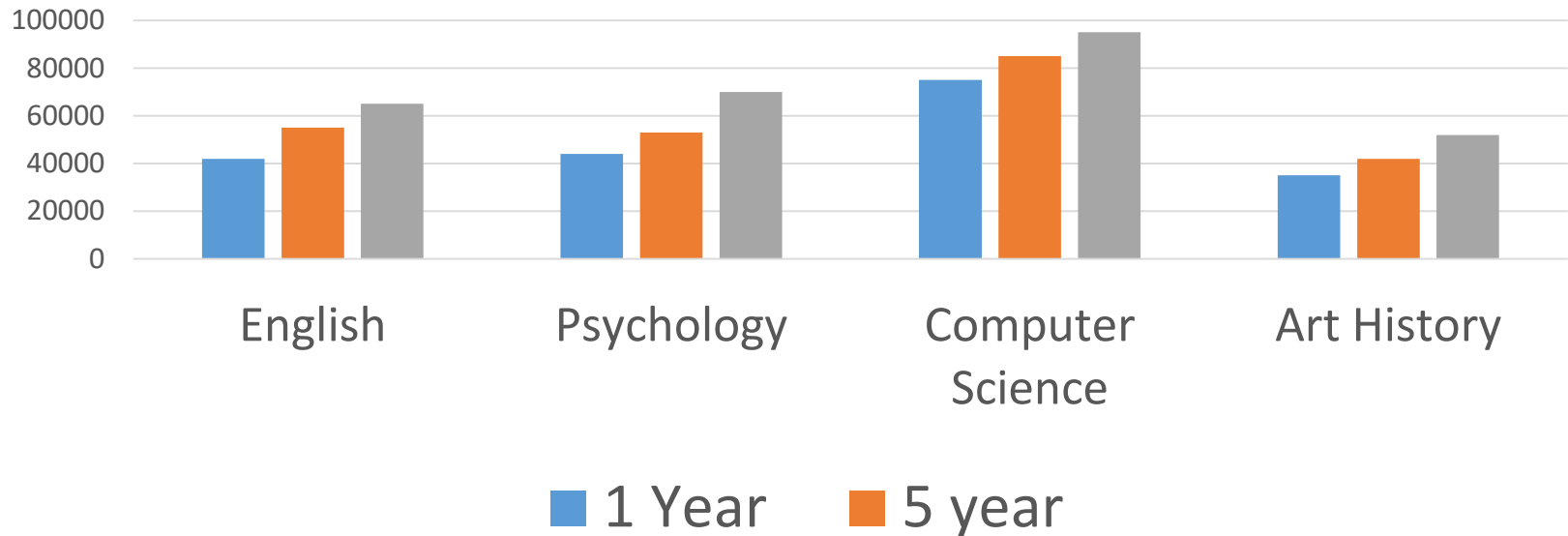
- National QWI and cross-state queries in QWI Explorer and LED Extraction Tool
- Local Storage in QWI Explorer
 - Customize your preferences – choose to remove conflict popups, set default settings, etc.
- 2015 data in OnTheMap (with 2016 TIGER geographies)

Planned Education Pilot Project

- In the federal statistical data infrastructure, one major missing link is between administrative education and earnings data
- Previous data products linking these data have had limitations:
 - College Scorecard only considers incoming cohorts, those receiving federal aid
 - State-level analyses can only match to in-state earnings

Earnings Data Release Example

Median Earnings - University A Graduates



Thank you!

Link to Applications

- Lehd.ces.census.gov/applications

Link to Raw Data

- Lehd.ces.census.gov/data

Questions or Feedback?

- CES.Local.Employment.Dynamics@census.gov
- CES.OnTheMap.Feedback@census.gov
- CES.QWI.Feedback@census.gov
- CES.J2J.Feedback@census.gov