Local Employment Dynamics: Partnership, Employment, and Public-Use Data

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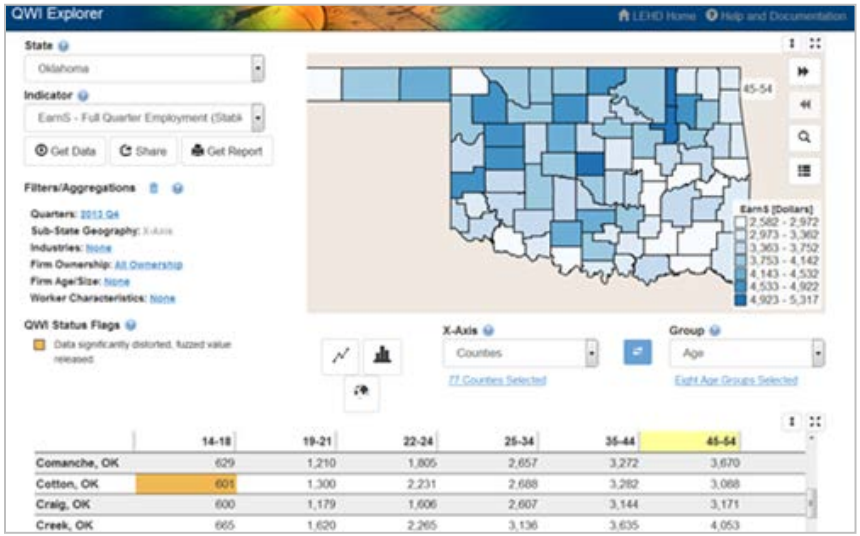
Center for Economic Studies
U.S. Census Bureau

Overview

- LEHD Program – Partnership & Admin. Data
- Datasets and Tools
  - LODES and OnTheMap
  - QWI and QWI Explorer
  - Job-to-Job Flows
- Questions
- Additional Material



LODES & OnTheMap

- LEHD Origin-Destination Employment Statistics
  - Measures “beginning-of-quarter” jobs between home and work locations.
  - 2002-2013 (with 2014 coming soon), by several different firm/demographic characteristics
  - Most states for most years
- OnTheMap
  - Free, map-based application for analyzing LODES data
  - Can use customized geography and generate reports

OnTheMap Live Examples

- http://onthemap.ces.census.gov

QWI & QWI Explorer

- Quarterly Workforce Indicators (QWI)
  - Set of economic indicators including employment, job creation, earnings, and other measures of employment flows
  - Detailed firm characteristics (sub-state geography, industry, age, size) and worker demographics information (sex, age, education, race, ethnicity)
  - 3 Quarter Lag (2015 Q1 data is most current), data back to 1990 for some states
- QWI Explorer
  - Flexible chart/map/table application for analyzing QWI data
  - Find a single data point, view longitudinal trends, and explore categorical comparisons
  - Comprehensive set of data exports

QWI Explorer Live Examples

- http://qwiexplorer.ces.census.gov

Job-to-Job Flows (J2J):
New public use data on worker flows across jobs

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.

THE WALL STREET JOURNAL.
WSJ.com

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 and wondered why the labor pool appears so shallow 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. It's gotten well less than half of those back. Where did they all go?

Well, the **Census Bureau's** job-to-job flows program tracks workers as they move in and out of industries. The data isn't that easy to use and underlying microdata isn't public, but agency economists **Hubert Janicki** and **Erika McEntarfer** dove in recently and came up with some interesting findings.

U.S. Census Bureau (http://www.census.gov/)

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In certain postings, opinions and conclusions expressed are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.

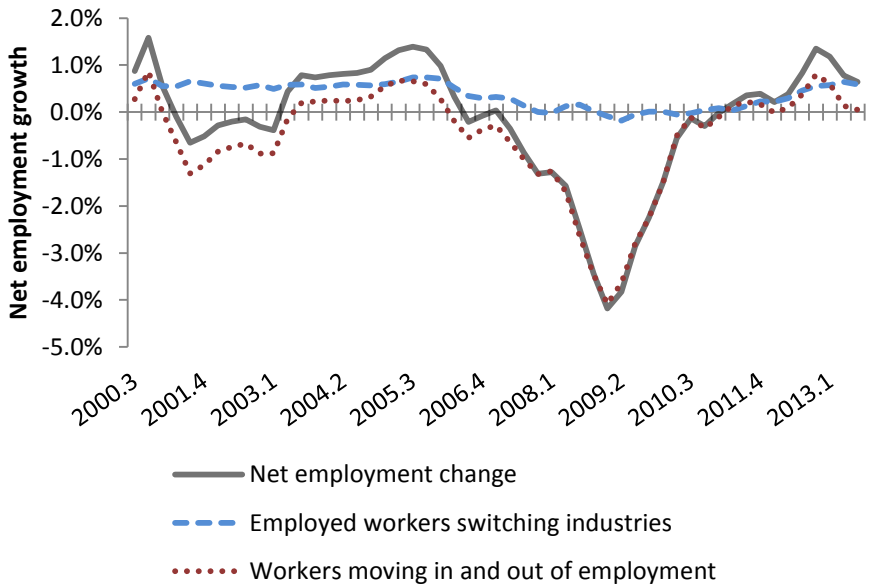
← How Well Do You Speak English? Assessing the Validity of the American Community Survey English-Ability Question (http://researchmatters.blogs.census.gov/2015/10/07/how-well-do-you-speak-english-assessing-the-validity-of-the-american-community-survey-english-ability-question/)

Census Bureau Opens 20th Research Data Center in Wisconsin (http://researchmatters.blogs.census.gov/2015/10/20/census-bure opens-20th-research-data-center-in-wiscons

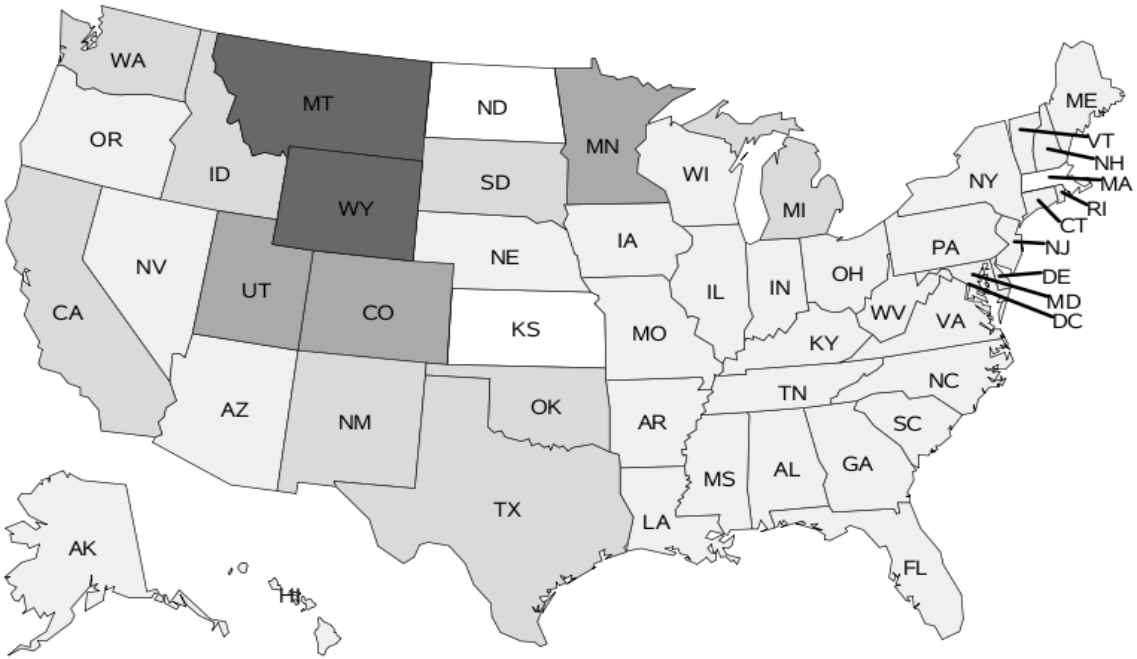
Where Did All the Construction Workers Go?

Posted on October 16, 2015 (http://researchmatters.blogs.census.gov/2015/10/16/where-did-all-the-construction-workers-go/)

Figure 1: Net Employment Change in Construction: Industry Switchers and Workers Moving In and Out of Employment: 2000Q2 – 2013Q4



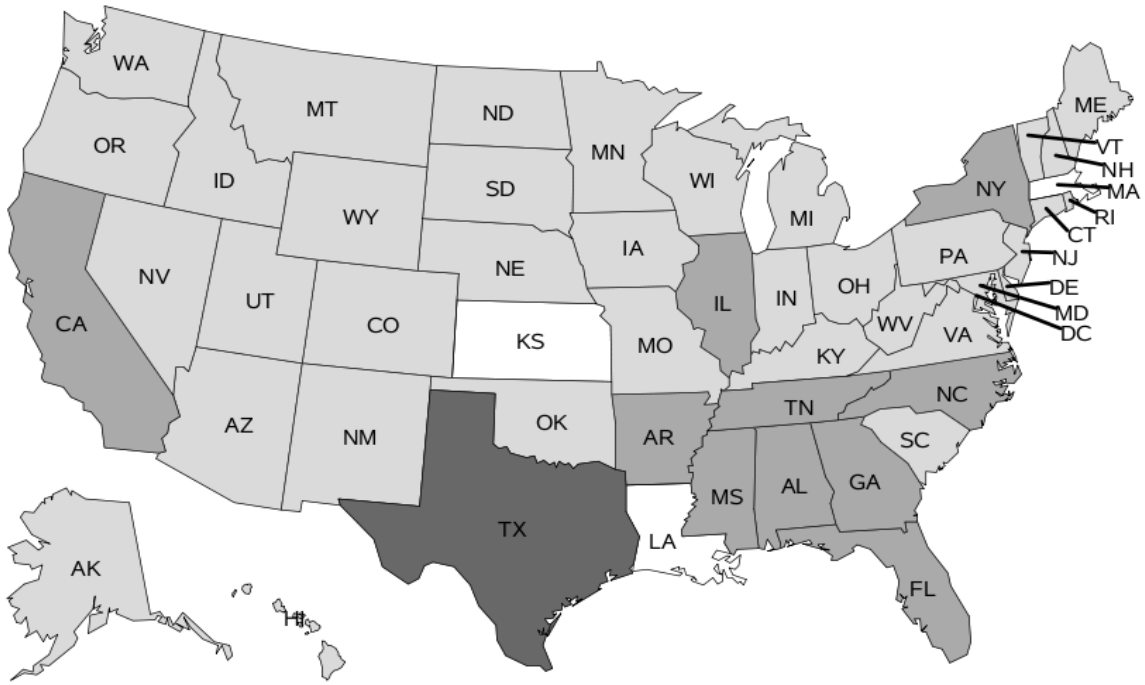
Net migration of out-of-state workers into the North Dakota mining sector: 2010-2014



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

Source: J2J prototype 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.

Louisiana education workers leaving to take education jobs out-of-state: 2005.3-2014.2



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

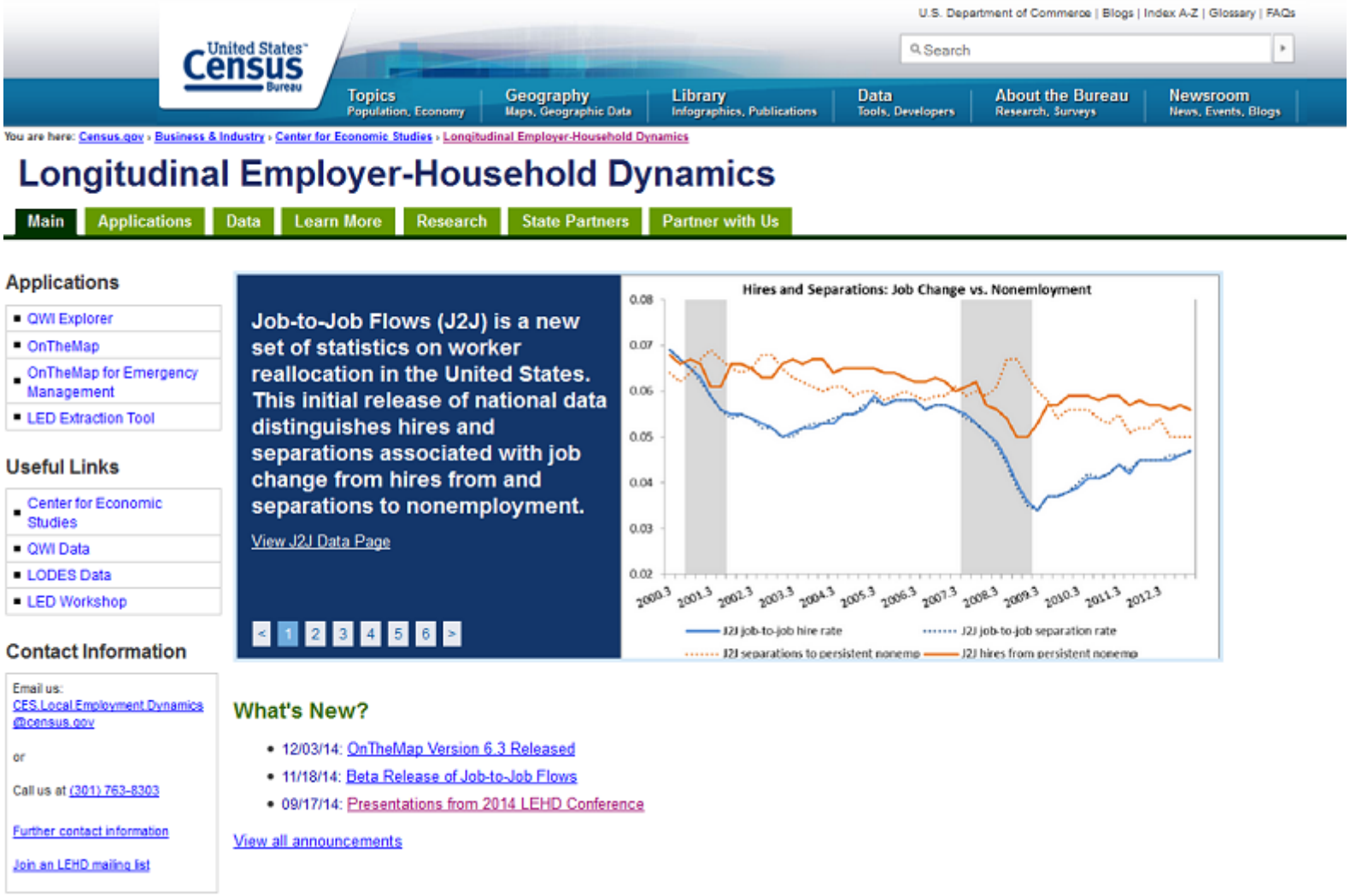
Source: J2J prototype origin-destination data. J2J data is not yet available for Massachusetts and Kansas , data for all other states is present.

How to do the examples shown here: a walkthrough of how to use the beta data

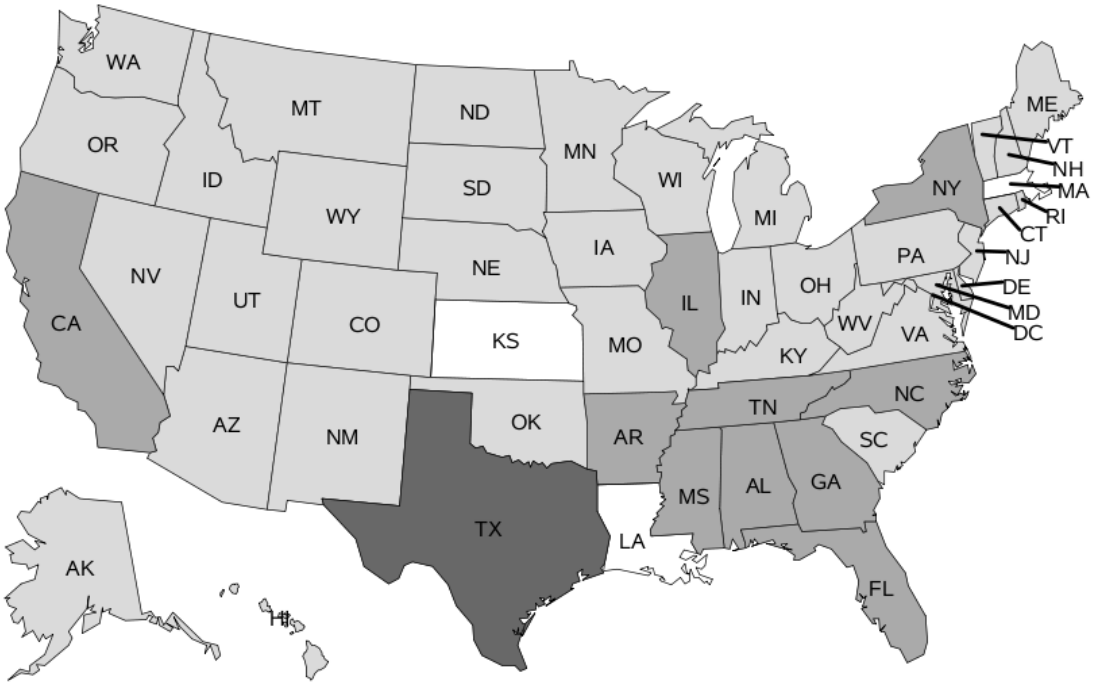
A J2J data application is coming!

But until it's here…things are a bit more basic

To start – how to find the beta J2J data:



How to use the data, an example: Where are Louisiana's teachers going?



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

First pull the industry sector level data

http://lehd.ces.census.gov/data | Data - Longitudinal Emplo...

File Edit View Favorites Tools Help

J2JOD Data Series: These files contain **origin and destination job characteristics data** of job-to-job flows - specifically, job transitions that take place within the same quarter or in adjacent quarters. Data is available by

- Origin state/destination state (including within-state job-to-job flows)
- Origin state/destination state by worker demographics (sex by age, sex by education, race by
- Origin state/destination state by origin industry/destination industry
- Origin state/destination state by origin firm size/destination firm size
- Origin state/destination state by origin firm age/destination firm age

Select Louisiana

Download J2J data:

Use the selector tool below to choose and download files. Note: .xls format is available only for smaller files.

Select the 'OD' file

Version: R2015Q2 State/Territory: Louisiana Type: j2jod Format: CSV

Select 'CVS' format

View Files

v4.1c-draft | Metadata for LA

j2jod_la_all.csv	18 Aug 2015 12:40	96 MB
j2jod_la_d_f_gs_n_oslp_u.csv		KB
j2jod_la_d_f_gs_ns_oslp_u.csv		MB
j2jod_la_d_fa_gs_n_oslp_u.csv		MB
j2jod_la_d_fs_gs_n_oslp_u.csv	18 Aug 2015 12:44	14 MB
j2jod_la_rh_f_gs_n_oslp_u.csv	18 Aug 2015 12:43	6 MB
j2jod_la_sa_f_gs_n_oslp_u.csv	18 Aug 2015 12:43	9 MB
j2jod_la_se_f_gs_n_oslp_u.csv	18 Aug 2015 12:44	7 MB

Grab the 'industry sector' file

Note about the data schema: Full descriptions of all categorical variables, measure layouts, and more can be found in the data schema. For the latest version, choose the Version, State/Territory, Type and Format of the data series desired and push the "View Files" button in the selector tool above. A list of files should subsequently appear with two links centered above it. Click on the left link. Since the last release, the data schema has been updated from v4.1b-draft to v4.1c-draft.

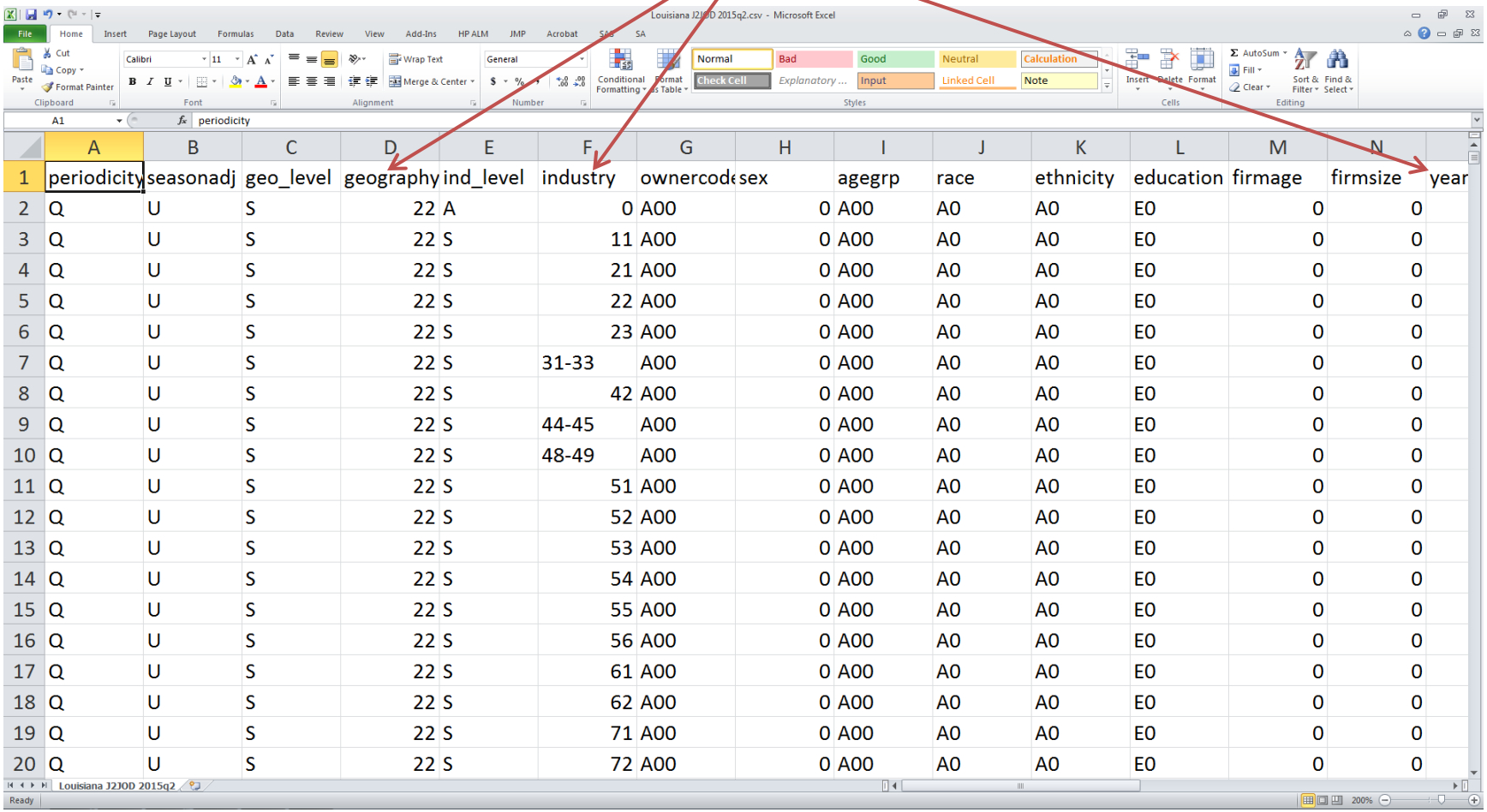
Note about data file names: Data files have the following filename structure:

J2J (Beta) Help

Learn more about J2J (Beta) by choosing one of the links below.

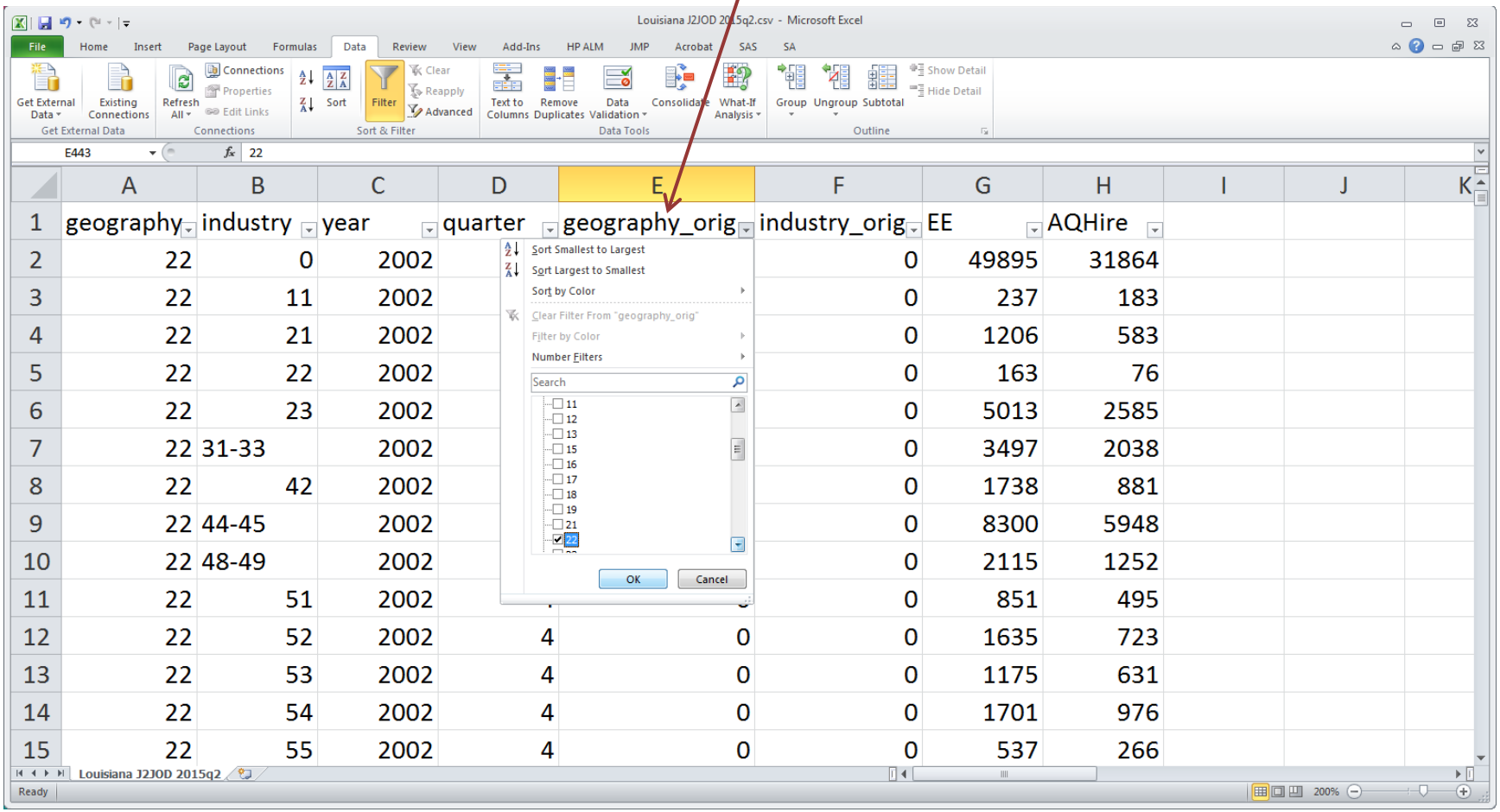
- Job-to-Job Flows: Quick Start Guide (165 KB)

Keep geography, industry, year, quarter, geography_orig, industry_orig, EE, and AQHire. Delete all other columns.

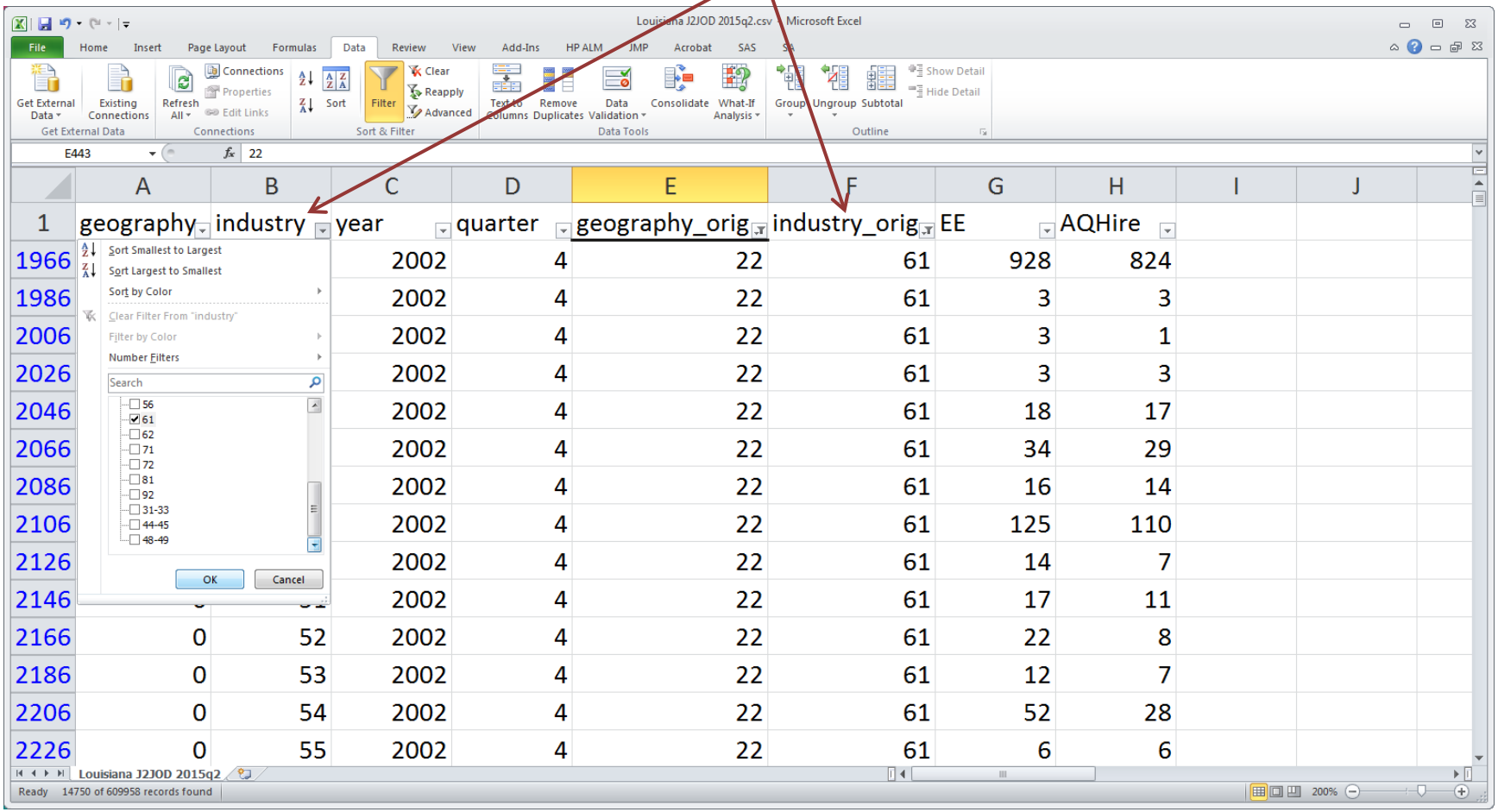


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	periodicity	seasonadj	geo_level	geography	ind_level	industry	ownercode	sex	agegrp	race	ethnicity	education	firmage	firmsize	year
2	Q	U	S	22	A	0	A00	0	A00	A0	A0	E0	0	0	
3	Q	U	S	22	S	11	A00	0	A00	A0	A0	E0	0	0	
4	Q	U	S	22	S	21	A00	0	A00	A0	A0	E0	0	0	
5	Q	U	S	22	S	22	A00	0	A00	A0	A0	E0	0	0	
6	Q	U	S	22	S	23	A00	0	A00	A0	A0	E0	0	0	
7	Q	U	S	22	S	31-33	A00	0	A00	A0	A0	E0	0	0	
8	Q	U	S	22	S	42	A00	0	A00	A0	A0	E0	0	0	
9	Q	U	S	22	S	44-45	A00	0	A00	A0	A0	E0	0	0	
10	Q	U	S	22	S	48-49	A00	0	A00	A0	A0	E0	0	0	
11	Q	U	S	22	S	51	A00	0	A00	A0	A0	E0	0	0	
12	Q	U	S	22	S	52	A00	0	A00	A0	A0	E0	0	0	
13	Q	U	S	22	S	53	A00	0	A00	A0	A0	E0	0	0	
14	Q	U	S	22	S	54	A00	0	A00	A0	A0	E0	0	0	
15	Q	U	S	22	S	55	A00	0	A00	A0	A0	E0	0	0	
16	Q	U	S	22	S	56	A00	0	A00	A0	A0	E0	0	0	
17	Q	U	S	22	S	61	A00	0	A00	A0	A0	E0	0	0	
18	Q	U	S	22	S	62	A00	0	A00	A0	A0	E0	0	0	
19	Q	U	S	22	S	71	A00	0	A00	A0	A0	E0	0	0	
20	Q	U	S	22	S	72	A00	0	A00	A0	A0	E0	0	0	

Then filter geography_orig to obtain the origin state of interest.

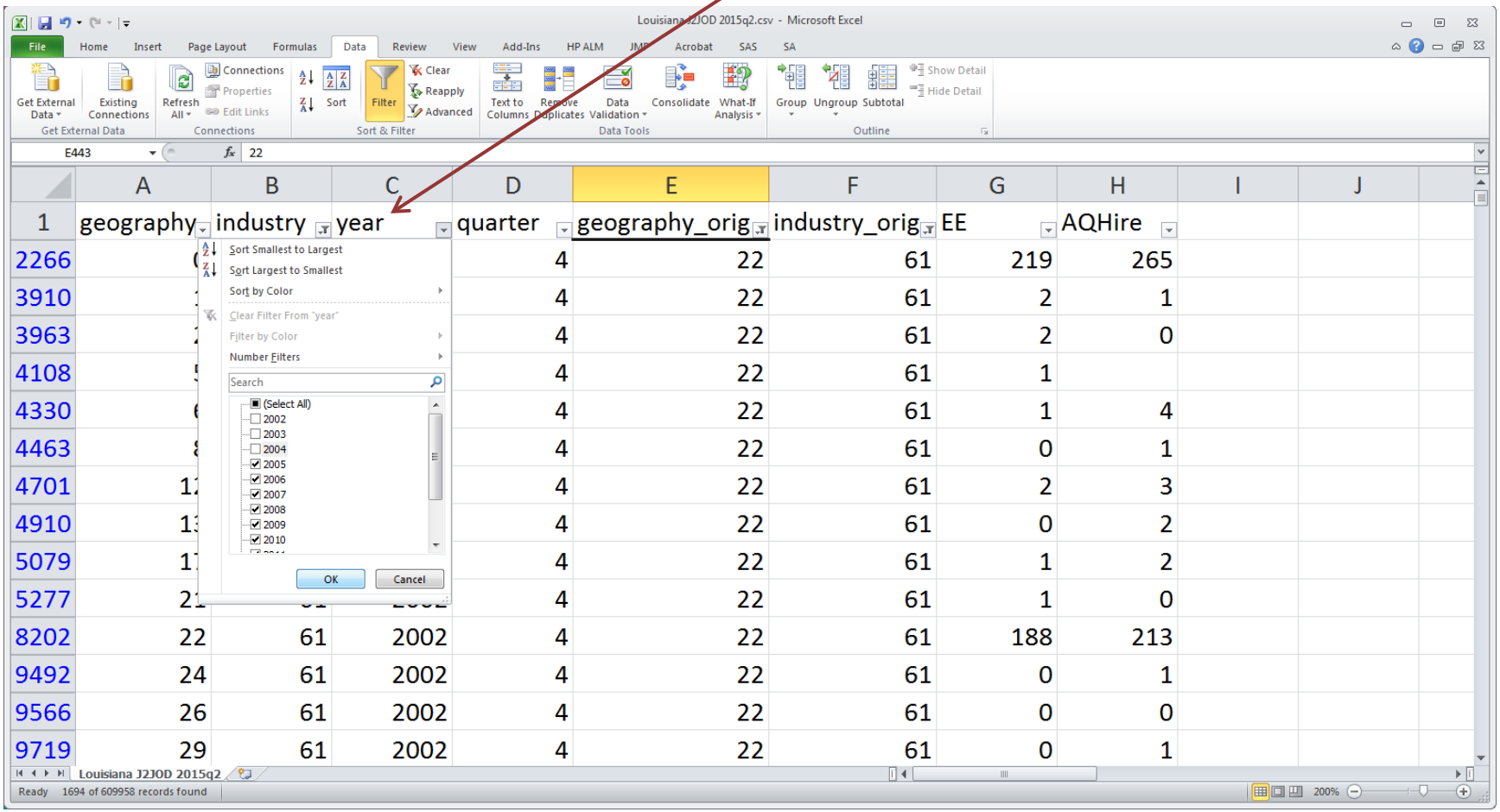


Then filter industry_orig to obtain the origin industry of interest. Repeat with industry for the destination industry of interest.

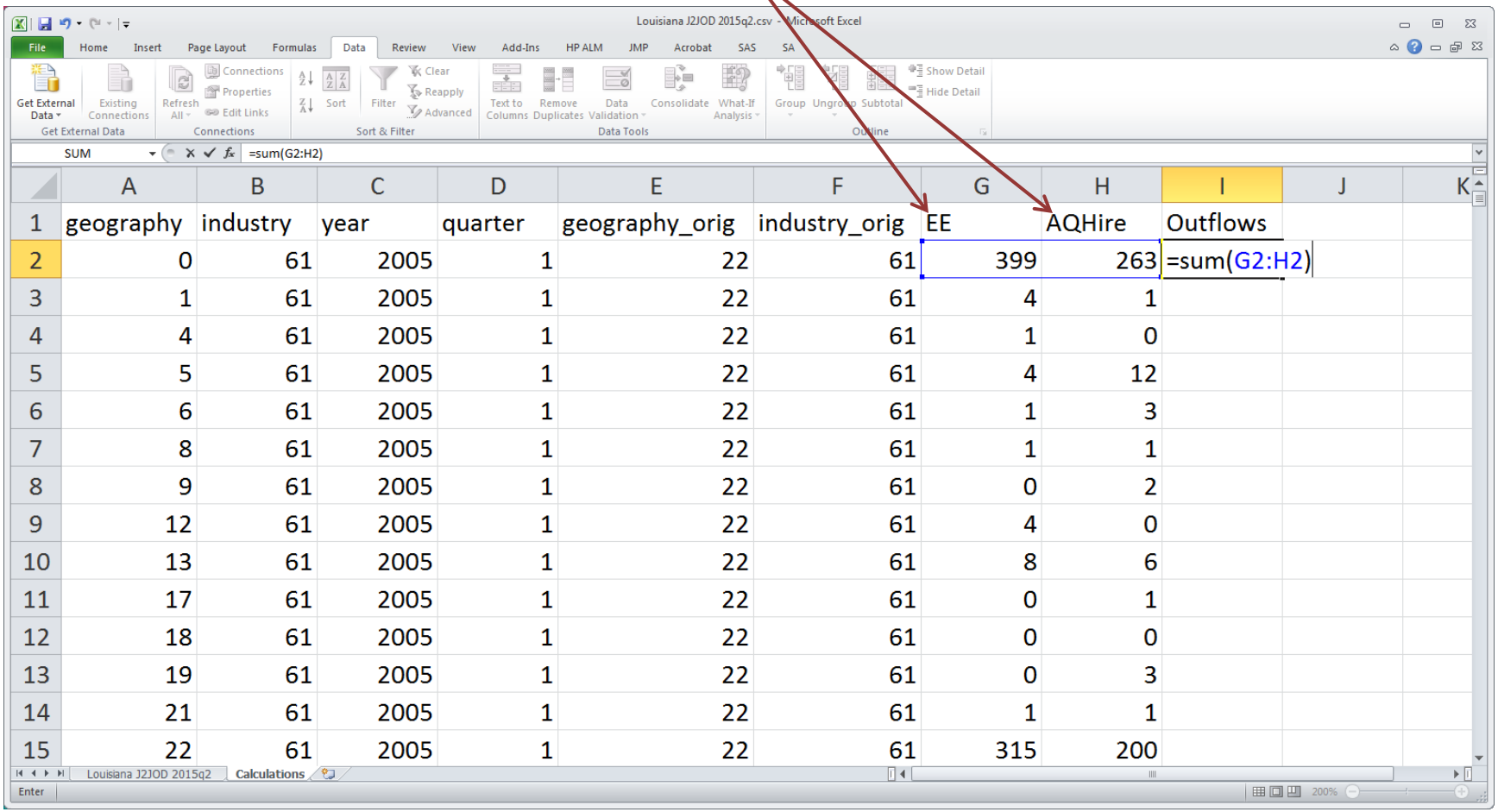


	geography	industry	year	quarter	geography_orig	industry_orig	EE	AQHire
1966			2002	4	22	61	928	824
1986			2002	4	22	61	3	3
2006			2002	4	22	61	3	1
2026			2002	4	22	61	3	3
2046			2002	4	22	61	18	17
2066			2002	4	22	61	34	29
2086			2002	4	22	61	16	14
2106			2002	4	22	61	125	110
2126			2002	4	22	61	14	7
2146			2002	4	22	61	17	11
2166	0	52	2002	4	22	61	22	8
2186	0	53	2002	4	22	61	12	7
2206	0	54	2002	4	22	61	52	28
2226	0	55	2002	4	22	61	6	6

Then filter years to obtain the period of interest. (In the interest of time, let's choose only one quarter: 2005.1)



Then sum EE and AQHire to get all Outflows for every state by year and quarter.



	A	B	C	D	E	F	G	H	I
1	geography	industry	year	quarter	geography_orig	industry_orig	EE	AQHire	Outflows
2	0	61	2005	1	22	61	399	263	=sum(G2:H2)
3	1	61	2005	1	22	61	4	1	
4	4	61	2005	1	22	61	1	0	
5	5	61	2005	1	22	61	4	12	
6	6	61	2005	1	22	61	1	3	
7	8	61	2005	1	22	61	1	1	
8	9	61	2005	1	22	61	0	2	
9	12	61	2005	1	22	61	4	0	
10	13	61	2005	1	22	61	8	6	
11	17	61	2005	1	22	61	0	1	
12	18	61	2005	1	22	61	0	0	
13	19	61	2005	1	22	61	0	3	
14	21	61	2005	1	22	61	1	1	
15	22	61	2005	1	22	61	315	200	

Job-to-Job Flows (coming in later releases):

-Metro-area job-to-job flows
-Industry by demographics origin-destination data
-Flows to/from longer nonemployment spells

Why Are LED Data Unique?

- 100% Coverage of UI Covered Jobs
- Firm Characteristics crossed with Worker Characteristics
- Detailed Geography
- Data Currency
- Accessible via powerful and easy-to-use tools
- Flexible outputs: PDF reports, Excel tables, high-quality images, and shapefiles

Web Addresses for Public Data Tools

- QWI Explorer
  - http://qwiexplorer.ces.census.gov/
- OnTheMap
  - http://onthemap.ces.census.gov/
- Job-to-Job Flows Data
  - http://lehd.ces.census.gov/data/j2j_beta.html
- OnTheMap for Emergency Management
  - http://onthemap.ces.census.gov/em.html
- LED Extraction Tool
  - http://ledextract.ces.census.gov/

Useful Links

- **LEHD Program/LED Partnership**
  - http://lehd.ces.census.gov
- **QWI Explorer**
  - Video Walkthrough: http://lehd.ces.census.gov/applications/help/qwi_explorer.html#!video_walkthrough
  - Example Scenarios: http://lehd.ces.census.gov/applications/help/qwi_explorer.html#!example_scenarios
- **OnTheMap**
  - Getting Started: http://lehd.ces.census.gov/doc/help/onthemap/GettingStartedwithOnTheMap.pdf
  - Analysis Guides: http://lehd.ces.census.gov/applications/help/onthemap.html#!analysis_guides
  - Other Tutorials: http://lehd.ces.census.gov/applications/help/onthemap.html#!more_tutorials