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

LED Partnership Conference
June 2015

Erika McEntarfer
Lead Economist
Longitudinal Household Dynamics Program (LEHD)
Center for Economic Studies
U.S. Census Bureau
Job-to-Job Flows (J2J) fills an important data gap:

In 2000, about ½ of all hires were workers moving from one job to another.
- Most job vacancies are not for entry-level workers

Most job moves are moves ‘up the job ladder’
- ½ of wage growth for young workers is from job change (Topel & Ward, 1992).
- Procyclical worker reallocation from lower paying to higher paying firms (Haltiwanger, Hyatt, & McEntarfer, 2015; Kahn & McEntarfer, 2014).

Better understanding of worker moves across industries and labor markets
National Job-to-Job Flows: Steep decline in job change in last two recessions

Note: Source: Job-to-Job Flows, national data. Shaded regions indicate NBER recession quarters. All data are seasonally adjusted.
Within months of initial beta release, J2J appeared in the 2015 Economic Report of the President:

Figure 3-19

Hires, Separations, and Job-to-Job Flow Rates, 2000–2013

Percent of Employment


Note: J2J job-to-job hires are generally equal to J2J job-to-job separations (not shown). Shading denotes recession.
Using Job-to-Job Flows to look at industry growth and decline, an example:

Did the construction boom help displaced manufacturing workers?
There was a surprisingly swift decline in U.S. manufacturing employment between 2000-2013.
J2J: decompose employment decline into flows to other industries vs. flows to long nonemployment spells

Net employment gain from workers moving from other industries to manufacturing

Net employment change, manufacturing

Net employment gain/loss from cross-industry job-to-job moves (natl)

Net employment gain/loss from workers moving in/out of employment (natl)

Net employment change

Net employment decline, worker separations to long nonemployment spells

Separation rates from manufacturing to other industries

- Blue: Separation rate of manufacturing workers to low-wage services
- Red: Separation rate of manufacturing workers to construction jobs

- Separation Rate: Manufacturing Workers to Retail, Food Service, and Hospitality Jobs
- Separation Rate: Manufacturing Workers to Mining, Utilities, Transportation, and Agriculture Jobs
- Separation Rate: Manufacturing Workers to Jobs in Other Industries
- Separation Rate: Manufacturing Workers to Construction Jobs
Net employment change in manufacturing from job change

Blue: Net employment gain from workers moving from low-wage services jobs to manufacturing

Red: Net employment decline from workers moving to construction jobs

Change in manufacturing employment

United States Census Bureau
U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov
Did downsized manufacturing workers eventually move into construction after longer nonemployment spells?:

**J2J data** tell us whether workers found new jobs within about a 3-5 month window.

- But looks like most of the downsizing in manufacturing employment involved workers moving into longer nonemployment spells

Can look to microdata to see what happened to them. For 2000-2003 separators:

- About 35% were eventually recalled to previous employer or found another manufacturing job
- About 45% found jobs in other industries
  - ½ of these after a nonemployment spell of over a year
  - Very few move into construction, mostly general laborers and truck drivers
- Another 20% appear to leave the labor market altogether.
Using Job-to-Job Flows to look at regional economic migration:
Net economic migration into ND mining sector: 2008-2012

Source: J2J prototype origin-destination data. Massachusetts has partially missing employment data in part of this time series, data for all other states is present. Net economic migration is hires into ND mining of workers who recently held a job in a different state, minus flows of ND mining workers to jobs in that state.
Net economic migration to Texas: 2008-2012

Source: J2J prototype origin-destination data. Massachusetts has partially missing employment data in part of this time series, data for all other states is present.

United States Census Bureau


- Out-Migration From TX
- 1-999 Net Migrants
- 1000-4,999 Net Migrants
- 5,000+ Net Migrants
How to access the data

Longitudinal Employer-Household Dynamics

Applications
- QWI Explorer
- OnTheMap
- OnTheMap for Emergency Management
- LED Extraction Tool

Useful Links
- Center for Economic Studies
- QWI Data
- LODES Data
- LED Workshop

Contact Information
Email us: CES.LocalEmployment.Dynamics@census.gov
or
Call us at 1-877-763-8303
Further contact information
Join an LED mailing list

What's New?
- 12/03/14: OnTheMap Version 6.3 Released
- 11/18/14: Beta Release of Job-to-Job Flows
- 09/17/14: Presentations from 2014 LEHD Conference

Job-to-Job Flows (J2J) is a new set of statistics on worker reallocation in the United States. This initial release of national data distinguishes hires and separations associated with job change from hires from and separations to nonemployment.

View J2J Data Page

Hires and Separations: Job Change vs. Nonemployment

[Graph showing data]

View all announcements
How to access the data

- **November 2014:**
  - National J2J rates (NSA, SA)

- **June 2015:**
  - National J2J counts (NSA, SA)
  - State J2J counts and rates (NSA, SA)
    - Except New England, KS/MO

- **August 2015 (planned)**
  - Origin-destination J2J counts
    - State-to-state worker flows, industry-to-industry
    - Wage transitions - No date set yet for release
The Job-to-Job flows development team:

Henry Hyatt
Erika McEntarfer
Lars Vilhuber

Stephen Tibbets
Kevin McKinney
Using Job-to-Job Flows to look at regional growth and decline, an example:

Where are North Dakota’s oil boom workers coming from?
Employment Growth in North Dakota Mining Sector

Note: Source: J2J flows, dominant beginning of quarter jobs in North Dakota mining sector (NAICS 21). Shaded regions indicate NBER recession quarters. All data are seasonally adjusted.
Increasingly, North Dakota mining sector is growing by poaching workers holding jobs out of state.

Note: Shaded regions indicate NBER recession quarters. Some missing state data may bias net nonemployment flows and net flows from other states early in the time series. By 2006, all states except MA are present in the data.
Where are the out-of-state workers coming from?
Net economic migration from job-to-job moves into ND mining sector: 2008-2012

Source: J2J prototype origin-destination data. Massachusetts has partially missing employment data in part of this time series, data for all other states is present. Net economic migration is hires into ND mining of workers who recently held a job in a different state, minus flows of ND mining workers to jobs in that state.
How job transitions in J2J are identified:

Fictional LEHD Job History

<table>
<thead>
<tr>
<th>PIK</th>
<th>SEIN</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person1</td>
<td>Firm A</td>
<td>7029</td>
<td>2549</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Person1</td>
<td>Firm B</td>
<td>0</td>
<td>0</td>
<td>3098</td>
<td>6049</td>
<td>7001</td>
</tr>
</tbody>
</table>

- Firm A is main job on April 1
- Leaves Firm A between April 1 and June 30
- July 1st: no earnings at any job
- Worker starts at Firm B during Q3
- B is main job on Oct 1

Only main jobs held on first day of quarter are linked, shorter transitory jobs are dropped.
How do J2J compare to other related series?:
Comparison to JOLTS: Layoffs

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.
Comparison to JOLTS: Quits

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.
J2J separations-to-employment vs. CPS employer-to-employer 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.
Some anticipated users J2J data:

Federal policy makers interested in the overall health of the labor market
  ▪ 70% of decline in hires in Great Recession was decline in job-to-job moves.

State governors, economic development, and labor market analysts
  ▪ concerned about losing workers to job opportunities in other states, more information about own in-migrants
  ▪ better targeting trade adjustment labor training

Academic and non-profit researchers
  ▪ interested in the reallocation of workers in response to demand shocks