Job-to-Job Flows in the Great Recession

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Any opinions and conclusions expressed are our own and do not represent the views of the U.S. Census Bureau. All results have been reviewed to ensure no confidential information is disclosed.
Job-to-job flows are a major opportunity for development of new employment statistics

**Job-to-job flows longitudinally connect employment separations to hires**

Several employment series measure worker separations & accessions:

- Job Openings and Labor Turnover Survey (JOLTS)
- Quarterly Workforce Indicators (QWI)

Job-to-job flows allow us to examine flows of workers between employers, industries, and geographies

**Job changes are linked to both earnings growth and decline**

- Switching jobs explains 1/3 of the wage growth of young men (Topel & Ward, 1992)
- Workers separating from firms experiencing mass-layoff events are associated with persistent earnings losses (JLS, 1993, Couch & Placzek, 2010)

**Flows of workers across jobs and industries offer insight into labor market adjustment in response to trade and technological change**
In this paper we...

Construct pilot measures of worker flows between jobs (job-to-job flows)
  • Include both direct flows and those with an intervening nonemployment spell

Use these measures to draw a fuller portrait of labor market adjustment in the Great Recession. We find evidence that:
  • Job mobility is in sharp decline, particularly direct flows to new jobs.
  • Earnings changes for all types of job change are at a series low.
  • Focusing on one industry, residential construction we find:
    • increasing rates of industry change and earnings losses from job change
    • even for workers who do not experience significant nonemployment or leave the industry.
The LEHD data

UI wage records
- Longitudinal job histories
- 50 states, over 90% private employment

Censuses
- Individual characteristics
  - age
  - sex
  - race & ethnicity

PIK

SEIN

QCEW
- Longitudinal information on firms

National Jobs Frame

Our analysis sample
- Nine-state pooled sample (CA, FL, GA, IL, KS, MI, NV, NC, ND)
- National job history for all workers with at least one job in the nine-state frame
- Our panel covers 1998.1-2010.4
- Focus on dominant jobs only
National Jobs Frame

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- National job history for all workers with at least one job in the nine-state frame
- Our panel covers 1998.1-2010.4
- Focus on dominant jobs only
Identifying job changes and nonemployment

**UI wage records**

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<thead>
<tr>
<th>PIK</th>
<th>SEIN</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
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<tbody>
<tr>
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<td>7000</td>
<td>3000</td>
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<td>0</td>
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<td>Person1</td>
<td>Firm B</td>
<td>0</td>
<td>0</td>
<td>4000</td>
<td>8000</td>
<td>8000</td>
</tr>
<tr>
<td>Person2</td>
<td>Firm A</td>
<td>5000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Person2</td>
<td>Firm D</td>
<td>0</td>
<td>0</td>
<td>3000</td>
<td>5500</td>
<td>6000</td>
</tr>
</tbody>
</table>

Changes jobs in Q3

 Observed vs. Actual Nonemployment

- We observe only full quarters of nonemployment.
- Full-quarter movers are those with 0-2 months nonemployment between spells
- Adjacent-quarter movers have 0-5 months nonemployment
- Movers with a full-quarter nonemp spell have 3-6 months nonemployment.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Total</th>
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<tbody>
<tr>
<td>Firm B</td>
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<td>0</td>
<td>0</td>
<td>4000</td>
<td>8000</td>
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<tr>
<td>Firm A</td>
<td>5000</td>
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<td>Firm D</td>
<td>0</td>
<td>3000</td>
<td>0</td>
<td>5500</td>
<td>5500</td>
</tr>
</tbody>
</table>

**Observed vs. Actual Nonemployment**

We observe only full quarters of nonemployment.
- Within-quarter movers are those with 0-2 months nonemployment between spells
- Adjacent-quarter movers have 0-5 months nonemployment
- Movers with a full-quarter nonemp spell have 3-8 months nonemployment.
Figure 1: Quarterly Dominant Job Separations, Job-to-Job Flows: 1998:2-2010:3
Figure 2: Median Quarterly Earnings Change from Job Change
Housing boom resulted in build up of construction sector.

- Steep decline in employment with collapse of housing market starting in 2006

Can use job-to-job flows to examine consequences of labor demand shock.
What happened to separating construction workers who were reemployed?

Earnings gains for within industry job change disappear.

More moves out of construction

More moves into low wage industries and greater penalties for industry switching overall even compared to last recession

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Frequency of Destinations</th>
<th>Wage Change (Median)</th>
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</thead>
<tbody>
<tr>
<td>Construction</td>
<td>43.2</td>
<td>41.4</td>
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<tr>
<td>Residential Building Construction</td>
<td>15.6</td>
<td>14.9</td>
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<td>Other Construction Industry Groups</td>
<td>27.6</td>
<td>26.6</td>
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<tr>
<td>Sectors other than Construction</td>
<td>56.8</td>
<td>58.6</td>
</tr>
<tr>
<td>Admin., Suppt. &amp; Waste Mgmt.</td>
<td>13.3</td>
<td>14.5</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>7.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Accommodation &amp; Food Services</td>
<td>7.7</td>
<td>7.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Prof., Sci. &amp; Tech. Services</td>
<td>3.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Health Care &amp; Social Assistance</td>
<td>2.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Other Services (except Publ. Admin.)</td>
<td>2.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>2.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Agric., Forestry, Fishing &amp; Hunting</td>
<td>1.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Any Other Sector</td>
<td>11.1</td>
<td>10.9</td>
</tr>
</tbody>
</table>

Job-to-Job Flows (thousands): 455.3, 650.9, 463.5, 118.5, 191.4, 142.4

Notes: Calculated from the set of all job-to-job flows which are within-quarter or in adjacent quarters, in which the origin industry is in Residential Building Construction (NAICS Industry Group 2361). Associated median wage changes are available for the subset of job-to-job flows in which both the separation is from and accession is to full-quarter employment, see text for details. Wage changes are calculated for full-quarter earnings of separation job S and accession job A according to (A-S)/(A-S)/2.
To sum up:

Our paper has two goals:
  • Demonstrate how linked employer-employee data can be used to construct flows of workers across jobs
  • Use that data to provide some new evidence on labor turnover in the Great Recession. We find that:
    • Job change is on a sharp decline starting in 2007
    • Earnings changes associated with job change are at a series low
    • Residential construction separators who did not experience significant nonemployment have experienced earnings losses
      • wage gains for within-industry job change disappear
      • higher rates of industry change and associated wage penalties
Comments/Questions
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Erika.McEntarfer@census.gov

About LEHD and the Center for Economic Studies
http://www.ces.census.gov/