Job Hires and Separations and Worker Movement Into and Out of Persistent Non-Employment: Analysis Using New Census Job-to-Job Flows Data

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Fluctuations in the labor market drive a wide range of questions on employment, unemployment, and wages. The Great Recession and recovery have primarily been measured through changes in employment and unemployment, but the impact of both, and that of other historical impacts of varying severity, undoubtedly goes beyond just a basic measurement of change. Recent changes in the economy and labor force are driving many economists to ask if the essential definition of work is changing. For example, how have reduced employment options in certain industries and occupations impacted the number of multiple job holders or part-time workers? How has an increase in the number of long-term unemployed workers and a reduction in employment options impacted wage growth potential? Simply analyzing basic growth in employment and unemployment cannot get to the heart of answering these types of questions. For that, additional data on the labor force is needed.

A new set of data has been released by the U.S. Census Bureau that may help to analyze some aspects of the workforce that have not traditionally been measured. Job-to-Job Flows (J2J) data go beyond measuring increases/decreases in employment and unemployment and look at changes in employment from one job to another, or what we would call “job churn,” “job movement,” or “job-to-job change.” This measure is important to analyze because not all jobs available are new, expanding companies are not the only companies hiring, and contracting firms are not the only firms laying off workers. These movements within the labor market can provide insight into not just job losses or gains, but how job opportunities of those employed have been affected by recent economic realities. The data also present information on workers moving into and out of employment from persistent non-employment. Non-employment can mean a period of unemployment, when the individual was looking for work but did not get a job, a period when the individual was not in the labor force (i.e., not looking for employment), or a combination of the two. Understanding movements between employment and non-employment leads to particularly interesting analysis at the industry level. For example, seasonal industries, such as retail trade and accommodation and food services, will likely have a higher percentage of workers moving into and out of persistent non-employment. But, what about industries that are not seasonal? Are some industries hiring more workers from persistent non-employment? Are workers separating from other industries less likely to gain employment quickly? J2J data make future analyses that address these questions more feasible.

This article provides an introduction to this new and exciting set of data, with presentation and analysis of the following four different measurements for New Mexico and the U.S., as well as for the construction and health care industries in New Mexico.

1. **Job-to-Job Hires (J2J Hires):** Hires that are part of a job-to-job move with little to no non-employment between jobs. Hires include (a) main job hires of workers separated from their former main job during the same quarter the worker started a new job and (b) main job hires of workers separated from their former main job in the quarter prior to starting the new job.

2. **Job-to-Job Separations (J2J Separations):** Separations that are part of a job-to-job move with little to no observed non-employment between jobs. Separations include (a) main job separations of workers starting a new main job during the same quarter the worker left his/her previous main job and (b) main job separations of workers starting a new main job in the quarter following their previous main job separation.

3. **Hires from Persistent Non-Employment (Hires from PNE):** Main job hires of workers not employed on the first day of the current quarter or the first day of the previous quarter (representing three months of non-employment).

4. **Separations to Persistent Non-Employment (Separations to PNE):** Main job separations of workers not employed on the last day of the current quarter or the last day of the subsequent quarter.

The article also defines “J2J change” or “job movement” as the rate of J2J hires and J2J separations combined. Historical analysis reaches back to the third quarter of 2004 for New Mexico and the second quarter of 2000 for the U.S., with the most recent quarter analyzed being third quarter 2013. All data are seasonally adjusted. J2J data are available for all U.S. states and at the North American Industry Classification System (NAICS) industry sector level. Data are also available by worker demographic (sex, age, race, ethnicity, and education level) and firm characteristic (age and size). J2J data are discussed in more depth at the end of this article, with additional sources of information provided. The U.S. Census Bureau has presented J2J data in a beta release, with additional data to come in the future.
Summary of Initial Findings

- The rate of J2J change has been declining in New Mexico over at least the last decade and back to 2000 within the U.S. (data prior to 2004 are not available for New Mexico). This would indicate that fewer and fewer workers have been moving directly from one job to another over the period. Workers may be less inclined to move from job to job, but the decline could also indicate that more job hires are coming from and leading to periods of persistent non-employment. How these indicators are impacting the reduction in J2J change is not evaluated in this initial analysis.

- Declines in J2J hires contributed more to the overall decline in hires than declines in hires from persistent non-employment during the Great Recession in the U.S. In New Mexico, the decline in hires from persistent non-employment actually contributed more to the overall decline in hires than a decline in J2J hires. Both situations reflect a reduction in job hiring during recessionary periods, but the U.S. saw a more significant reduction in employed worker movement, while New Mexico saw a more significant reduction in hiring of nonemployed persons.

- A majority of hires during the recovery in the U.S. and New Mexico, as measured so far, came from increases in J2J hiring as opposed to hires of workers from persistent non-employment. This analysis looks at this finding at a high level, but it is still very interesting to note that job movement is recovering at a fairly consistent pace, while hires from persistent non-employment have yet to see as swift of a recovery.

- New Mexico’s construction industry experienced extended periods of net employment losses from separations to persistent non-employment not just during the recession but also during a good portion of the recovery. Positively, the industry experienced net gains in employment, driven by hires from persistent non-employment, beginning in the third quarter of 2012.

- The health care industry fared better than any other industry during the Great Recession and its recovery. The industry experienced consistent net gains in employment via workers coming from other industries (and likely to a lesser degree from other states) over the entire analysis period.

U.S. and New Mexico Hires and Separations Due to Job Change

Exhibit 1 presents hires and separations due to job change for the U.S. Hires and separations from job to job are presented as a share of total employment alongside hires from and separations to persistent non-employment. The rate of J2J change in the U.S., as measured by the rates of J2J hires and J2J separations, has been declining, generally, since 2000. J2J hires and J2J separations represented 6.9 percent of total employment in the third quarter of 2000 and 4.8 and 4.9 percent as of the third quarter of 2013, respectively. Unsurprisingly, declines in job change accelerated during the two recessions. The rates of J2J change hit a period trough of 3.4 percent in the third quarter of 2009 (for both J2J hires and separations).

The rate of hires from persistent non-employment and the rate of separations to persistent non-employment also declined over the period, from 6.9 percent to 5.5 percent and from 6.4 percent to 5.1 percent, respectively. Periods in which the rate of hires from persistent non-employment was higher than the rate of separations to persistent non-employment indicate periods in which net employment gains from workers entering a job from persistent non-employment were experienced. The large gap between hires from and separations to persistent non-employment during the two recessions reflects increases in long-term unemployment and declines in labor force participation in the labor market. Positively, net gains in employment, resulting from greater hires from persistent non-employment, were recorded starting in the first quarter of 2010.

What Exhibit 1 also shows is that approximately two-thirds of the fall in hiring during the Great Recession came from a decline in hiring workers who were already employed. During the recovery, a majority of hires have come from increases in J2J hiring, as opposed to hires from persistent non-employment, which actually remained between 5.5 and 5.9 percent of total employment starting in the second quarter of 2010.

Exhibit 2 presents hires and separations due to job change for New Mexico. (Note the different time period than that of Exhibit
J2J Separations (All Ind.)

1. New Mexico data show greater fluctuations in rate of job change (J2J hires and separations) than that experienced by the U.S. over the roughly nine-year period. The rate of J2J change in New Mexico was typically slightly higher than that of the U.S.; J2J hires and J2J separations averaged 5.7 and 5.8 percent in New Mexico, respectively, compared to 4.8 percent for both in the U.S. New Mexico, like the U.S., has seen the rate of J2J change decline over the period. Between third quarter 2004 and third quarter 2013, J2J hires and J2J separations declined from 6.2 percent and 6.4 percent, respectively, to 5.2 percent (both measurements). These declines are slightly larger than those experienced in the nation between third quarter 2004 and third quarter 2013. J2J hires in New Mexico reached a period trough of 4.6 percent in the fourth quarter of 2010.

J2J hires contributed less to the decline in overall hires during the Great Recession than a decline in hires from persistent non-employment—an experience opposite that of the U.S., which saw J2J hires contribute more to the overall decline in hires. Significant net employment losses, represented by the gap between hires from and separations to persistent non-employment, were realized during the Great Recession, as was the case nationwide. Net gains and losses fluctuated between the first quarter of 2010 and the fourth quarter of 2012. During the recovery, J2J hires contributed more to overall hires than hires from persistent non-employment. Most recently, however, New Mexico experienced fairly significant net employment gains (between fourth quarter 2012 and third quarter 2013) driven by hires from persistent non-employment. As of the end of the period, hires from persistent non-employment represented 6.5 percent of total employment, while separations to persistent non-employment represented 5.8 percent of total employment.

Exhibit 2 also illustrates an additional job movement measurement—net losses/gains of workers moving to or from other states. The measurement is represented by the gap between J2J hires and J2J separations. Both measurements typically move very closely with one another simply because, within job-to-job measurements, a separation results in a hire and vice versa. The gap in measurements, however, is yet another interesting piece of the J2J data that can be further analyzed at the state, and even industry, level.

Industry Analysis Case Studies: Construction and Health Care

Exhibit 3 presents J2J data measurements for the construction industry in New Mexico. The exhibit also shows J2J hires and separations for all industries combined. The first apparent conclusion is that the construction industry has had higher rates of J2J change than all industries combined. In addition, the industry’s rate of J2J change declined over the period; J2J hires declined from 9.0 to 7.5 percent of total employment, while J2J separations declined from 8.4 to 7.1 percent. The industry also experienced extended periods of net employment losses from separations to persistent non-employment, with a large gap between hires from and separations to persistent non-employment not just during the recession but also during a good portion of the recovery. Positively, the industry experienced net gains in employment, driven by hires from persistent non-employment, beginning in the third quarter of 2012.

Exhibit 3 also shows a larger gap, at times, between J2J hires and J2J separations than that seen in Exhibit 2, where all industries are included. A difference between J2J hires and J2J separations for all industries represents net gains/losses of employment to/from other states. At the industry level, this gap primarily represents net gains/losses of employment to/from other industries. This measurement is particularly interesting because it allows for analysis of job movement between industries (also sometimes referred to as “job poaching”). In the case of construction, the industry experienced several years of net gains of workers coming from other industries leading up to the recession. The gap was nearly eliminated during the recession and recovery, with some net losses of workers leaving construction to go into other industries, although net losses were not as large as the previous...
net gains. (Detailed industry-to-industry job flows data will be available at a later time from the U.S. Census Bureau.)

Exhibit 4 presents J2J data measurements for the health care and social assistance industry (referred to as health care industry going forward and in Exhibit 4). New Mexico’s health care industry fared better than any other industry during the Great Recession and its recovery. As Exhibit 4 shows, the rate of J2J change was lower than the all-industry rate throughout the period. The rate of J2J change declined in health care over the period as well, with hires and separations dropping from 5.4 and 4.7 percent in the third quarter of 2004 to between 4.2 and 3.9 percent in the third quarter of 2013, respectively. The industry experienced frequent fluctuations between net employment losses and net employment gains, as hires from and separations to persistent non-employment varied over the period, including during the recession. The industry experienced net gains in employment, driven by hires from persistent non-employment, between the second quarters of 2012 and 2013; the industry flipped to net employment losses, due to higher separations to persistent non-employment, in the third quarter of 2013.

A particularly fascinating result of the J2J analysis for the health care industry is the consistent gap between J2J hires and J2J separations, indicating that the industry has experienced consistent net gains in employment via workers coming from other industries and likely to a smaller degree from other states. The industry has experienced some of the fastest and largest growth in New Mexico in recent years and is projected to see the fastest job growth in the near future. Additional analysis on which industries workers are coming from will be completed as data becomes available.

**Future Data and Analysis**

J2J data are still fairly new and in beta release. Future data releases will include data on workers by origin state of employment and destination state of employment. This will allow for detailed analysis on states from which workers are coming and to which New Mexico workers are going. It will also allow detailed analysis on industry-specific job movement (as touched on in Exhibits 3 and 4). All data will be available by demographic group (sex, age, race, ethnicity, and education level) and firm characteristic (age and size). Data will be constrained to varying degrees by reporting limitations (data availability and reliability). The New Mexico Department of Workforce Solutions’ Economic Research and Analysis Bureau anticipates future analysis using J2J data, particularly in relation to worker demographics and firm characteristics and as new data are released.

**Data Definitions and Notes**

Job-to-Job Flows (J2J) data are a product of the U.S. Census Bureau, which has provided the data in a beta release. Data are constructed from Longitudinal Employer-Household Dynamics (LEHD) program data. LEHD data consist of quarterly job-level earnings submitted by employers for the administration of state unemployment insurance (UI) benefit programs, linked to establishment-level data collected for the Quarterly Census of Employment and Wages (QCEW) program. The coverage of LEHD data is quite broad; state UI and QCEW data cover approximately 95 percent of private-sector employment, as well as state and local government. Individual demographic and additional firm characteristics such as firm age and size are not part of the UI or QCEW data and instead come from survey, Census, and other administrative record sources. For more information on LEHD data, visit [http://lehd.ces.census.gov/](http://lehd.ces.census.gov/). For detailed descriptions of J2J data and methodology, see “Job-to-Job Flows: New Statistics on Worker Reallocation and Job Turnover” at [http://lehd.ces.census.gov/doc/jobtojob_documentation_long.pdf](http://lehd.ces.census.gov/doc/jobtojob_documentation_long.pdf).

J2J data distinguish hires and separations associated with job changes from hires from and separations to non-employment. These new data allow for a comprehensive look at the reallocation of workers across different sectors of the U.S. economy. The U.S. data currently include origin and destination job characteristics of workers changing jobs (to which industries and geographies are workers flowing into or out of), with state-level data available at a future date. These data allow for examination of the flows of workers across state lines by demographic characteristics, such as age and education. Earnings changes associated with job change, another new feature of the J2J statistics, can help analysts better understand the nature of job ladders and lifetime earnings growth. (Source: U.S. Census Bureau, [http://lehd.ces.census.gov/data/j2j_beta.html](http://lehd.ces.census.gov/data/j2j_beta.html)).

All data presented in this analysis are seasonally adjusted. The time period of analysis is third quarter 2004 through third quarter 2013 for New Mexico and third quarter 2000 through fourth quarter 2013 for the U.S. Data for second quarter 2000, second quarter 2004, and fourth quarter 2013 are not included in the analysis because some J2J measurements are not available.