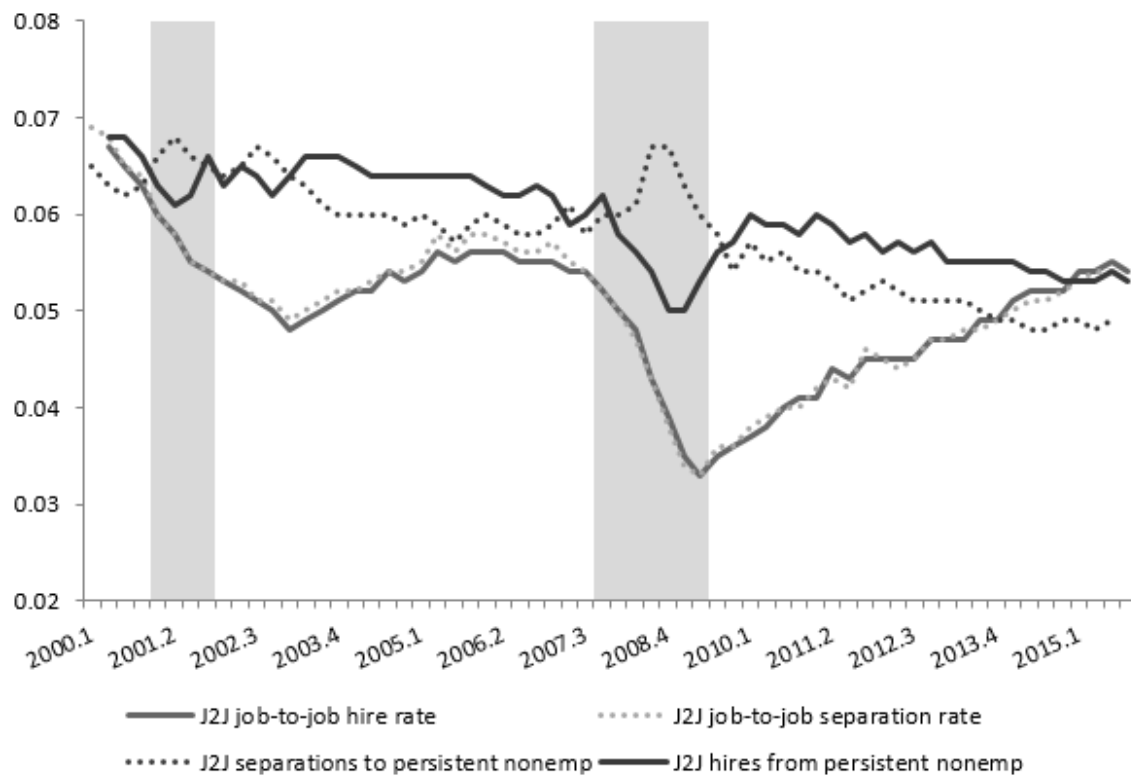


# Job-to-Job Flows: New Statistics on Worker Flows across Jobs

## Overview

Employment statistics predominately focus on job growth, wages, and unemployment. While these headline statistics are undoubtedly important, such figures provide only a partial portrait of the U.S. labor market. Expanding firms are not the only employers hiring workers; there is an enormous churn of workers across firms, with even shrinking employers having vacancies to fill. Firms fill vacancies not only from the pool of unemployed, but also by luring workers away from other firms. At the start of the last decade, approximately one-third to one-half of all hiring consisted of workers moving from one employer to another. These job-to-job moves, concentrated among younger workers, appear to be a primary means of improving job matches between firms and workers, with a typical job-to-job move resulting in an 8% increase in earnings (Hyatt and McEntarfer, 2012; Fallick, Haltiwanger, and McEntarfer, 2012). Such job-to-job moves also increase in economic booms and decline sharply in recessions - in the Great Recession, approximately two-thirds of the fall in hiring came from a decline in hiring workers already employed (see Figure 1).

**Figure 1: Hires and Separations Due to Job Change, National Job-to-Job Flows Data**



New Job-to-Job Flows (J2J) statistics released by U.S. Census Bureau illuminate this enormous churn of workers across firms. Using longitudinal administrative data on worker job histories, Job-to-Job Flows traces worker movements across industries, geographic labor markets, and to and from employment. These data can be used to decompose employment declines in a particular industry into worker movements into other industries and worker flows into persistent spells of nonemployment. Worker separations to persistent nonemployment spells are also available for an origin industry by worker demographics.

Shown in Figure 1 is the national J2J rates series, which decomposes trends in hires and separations since 2000 into flows from one job to another and flows to and from nonemployment. As can be seen in the figure, there has been a marked decline in the rate of job change in the U.S. since 2000, concentrated in the two recessions. The fall in the rate of job change during the Great Recession was especially steep, with the rate of job change only recovering to 2006 levels in 2016.

Specifically, J2J statistics provide insights into:

- Rates of job change, by worker age, education, race, and ethnicity
- Worker separations to persistent nonemployment, by worker demographics
- Hires from persistent nonemployment, by worker demographics
- Origin-destination and average earnings data for workers changing jobs

## Brief Overview of the Main J2J Indicators

This section covers the key variables of interest for new users of the J2J data. Technical definitions and descriptions of the full-set of measures are available in the [documentation](#)<sup>1</sup> and [data schema](#), which can be found on the LEHD website.

### Hires

**Main job hires** (*MHire*): Employees with the firm on the last day of the quarter who were hired sometime during the quarter. The new job must be primary source of income for the worker.

Main job hires are the sum of hires from job-to-job transitions (*J2JHire*), hires from nonemployment (*NEPersist*), and an unpublished residual of hires that resulted in main jobs becoming secondary jobs by the end of the quarter. *J2JHire* and *NEPersist* are defined below:

- **Job-to-job hires** (*J2JHire*): Main job hires that are part of a job-to-job move with a short or no observed nonemployment spell. Job-to-job hires are the sum of *EEHire* and *AQHire*, defined below:
  - **Within-quarter job-to-job hires** (*EEHire*): Main job hires where workers start a new main job in the same quarter they leave their old main job.

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<sup>1</sup> The documentation - [Job-to-Job Flows: New Statistics on Worker Reallocation and Job Turnover](#) - also provides a more detailed description of the J2J data and the methodology used to derive the statistics.

- **Adjacent-quarter job-to-job hires** (*AQHire*): Main job hires where workers start a new main job in the quarter following a separation from their old main job.
- **Hires from persistent nonemployment** (*NEPersist*): Main job hires following a spell of persistent nonemployment (i.e. not employed on the first day of the reference or previous quarter).

## Separations

**Main job separations** (*MSep*): Employees with the firm on the first day of the quarter who separate sometime during the quarter. The old job must be the primary source of income for the worker.

Main job separations are the sum of separations due to job-to-job transitions (*J2JSep*), separations to nonemployment (*ENPersist*), and an unpublished residual of separations that resulted in secondary jobs becoming main jobs by the end of the quarter. *J2JSep* and *ENPersist* are defined below:

- **Job-to-job separations** (*J2JSep*): Main job separations that are part of a job-to-job move with a short or no observed nonemployment spell. Job-to-job separations are the sum of *EESep* and *AQSep*, defined below.
  - **Within-quarter job-to-job separations** (*EESep*): Main job separations where workers leave a main job in the same quarter they start a new main job.<sup>2</sup>
  - **Adjacent-quarter job-to-job separations** (*AQSep*): Main job separations where workers leave a main job and start a new main job in the following quarter.
- **Separations to persistent nonemployment** (*ENPersist*): Main job separations into a spell of persistent nonemployment (i.e. not employed on the last day of the reference or following quarter).

## Employment

**Employment, start of quarter** (*MainB*): Main jobs held on the first day of the quarter.

**Employment, end of quarter** (*MainE*): Main jobs held on the last day of the quarter.

## Structure of the J2J Data

The [J2J data product](#) has three measure series: core measures (also referred to as J2J measures), rates measures (or J2JR measures), and origin-destination measures (or J2JOD measures). J2J measures tabulate hires and separations resulting from job change as well as hires and separations to nonemployment. Most have corresponding J2JR measures, calculated by dividing the J2J measure by the number of main jobs (i.e. the average of *MainB* and *MainE*). The J2JOD series only considers a subset of

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<sup>2</sup> At the national level, *EESep* and *EEHire* are equivalent. However, within a particular industry or sub-national geographic area, the wedge between job-to-job hires and separations represents the net inflow (or outflow) of workers from the industry or state due to workers changing jobs.

hires where the worker separated from their previous main job either in that same quarter or the previous quarter (job transitions involving fairly long spells of nonemployment between jobs are not included). These measures provide details about both the origin and destination jobs, in contrast to J2J and J2JR measures which only provide details about one or the other. Note that earnings measures are only available in the J2J and J2JOD series.

All three series are available at the national, state, and metropolitan area level by firm characteristics (i.e. industry, firm size, and firm age) and/or worker demographics (i.e. education, sex, age, and race/ethnicity). The following table lists cross-tabulations provided in the beta release:

*J2J and J2JR*

<b>Nationally</b>	All firms and workers
<b>and by state</b>	By firm characteristics
	By worker demographics
	By industry by firm characteristics
	By industry by worker demographics
<b>By metropolitan</b>	All firms and workers
<b>area</b>	By firm characteristics
	By worker demographics
	By industry by worker demographics

*J2JOD*

<b>By origin</b>	All firms and workers
<b>state/destination</b>	By origin firm characteristics by destination firm characteristics
<b>state<sup>3</sup></b>	By worker demographics
	By origin industry by destination industry by origin firm age/size by destination firm age/size
	By origin industry by destination industry by worker demographics
<b>By origin</b>	All firms and workers
<b>metropolitan</b>	By origin firm characteristics by destination firm characteristics
<b>area/destination</b>	By worker demographics
<b>metropolitan</b>	By origin industry by destination industry by worker demographics
<b>area</b>	

J2JOD tabulations are also available by additional interactions of the characteristics listed above. For a full list of interactions, see [section 6.14 in the schema](#).

It is recommended that you use seasonally adjusted data when available, as the hires and separations data is highly seasonal.

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<sup>3</sup> These tabulations include within-state flows.

## Availability of the J2J Data

Available quarters for the J2J and J2JR series vary by geography. The table below provides the starting quarter that data totals for national and state tabulations are available, as well as the ending quarter if the state is not in active production.

<b>Region</b>	<b>Initial Quarter</b>	<b>Latest Quarter</b>
United States	2000Q2	Latest available
Alabama	2001Q2	Latest available
Alaska	2000Q2	2016Q1
Arkansas	2002Q4	Latest available
Arizona	2004Q2	Latest available
California	2000Q2	Latest available
Colorado	2001Q2	Latest available
Connecticut	2010Q2	Latest available
Delaware	2000Q2	Latest available
District of Columbia	2005Q3	Latest available
Florida	2000Q2	Latest available
Georgia	2001Q2	Latest available
Hawaii	2000Q2	Latest available
Idaho	2000Q2	Latest available
Illinois	2000Q2	Latest available
Indiana	2001Q2	Latest available
Iowa	2000Q2	Latest available
Kansas	2000Q2	Latest available
Kentucky	2001Q2	Latest available
Louisiana	2002Q4	Latest available
Maine	2010Q2	2017Q4
Maryland	2005Q3	Latest available
Massachusetts	2010Q2	Latest available
Michigan	2000Q4	Latest available
Minnesota	2000Q2	Latest available
Mississippi	2003Q4	Latest available
Missouri	2000Q2	Latest available
Montana	2001Q2	Latest available
Nebraska	2000Q2	Latest available
Nevada	2001Q2	Latest available
New Hampshire	2010Q2	2017Q4
New Jersey	2000Q2	Latest available

<b>Region</b>	<b>Initial Quarter</b>	<b>Latest Quarter</b>
New Mexico	2004Q2	Latest available
New York	2000Q2	Latest available
North Carolina	2000Q2	Latest available
North Dakota	2001Q2	Latest available
Ohio	2001Q2	Latest available
Oklahoma	2000Q2	Latest available
Oregon	2000Q2	Latest available
Pennsylvania	2000Q2	Latest available
Rhode Island	2010Q2	Latest available
South Carolina	2000Q2	Latest available
South Dakota	2000Q2	2016Q4
Tennessee	2002Q4	Latest available
Texas	2000Q2	Latest available
Utah	2001Q2	Latest available
Vermont	2010Q2	Latest available
Virginia	2005Q3	Latest available
Washington	2000Q2	Latest available
West Virginia	2001Q2	Latest available
Wisconsin	2000Q2	Latest available
Wyoming	2001Q2	Latest available

More information about the availability of metropolitan area tabulations can be found in the [METRO metadata file](#) on the LEHD website. Note that available quarters in the J2JOD series may be outside of these ranges.

## Beta Release

This is a beta release from the U.S. Census Bureau of new national statistics on worker reallocation. We welcome your feedback and comments during this beta release to help us further develop the product, the documentation, and accompanying data applications.

## References

Fallick, Bruce, John Haltiwanger, and Erika McEntarfer “Job-to-Job Flows and the Consequences of Job Separations.” FEDS Working Paper 2012-73. Available at

<http://www.federalreserve.gov/pubs/feds/2012/201273/201273pap.pdf>  (463 KB).

Hyatt, Henry and Erika McEntarfer. 2012. "Job-to-Job Flows in the Great Recession." American Economic Review, 102(3): 580-83.

## Links

LEHD Website: [lehd.ces.census.gov/](http://lehd.ces.census.gov/)

J2J Data: [lehd.ces.census.gov/data/j2j\\_beta.html](http://lehd.ces.census.gov/data/j2j_beta.html)

J2J Explorer: [j2jexplorer.ces.census.gov/](http://j2jexplorer.ces.census.gov/)

Send feedback and comments to [CES.J2J.Feedback@census.gov](mailto:CES.J2J.Feedback@census.gov)