Monthly Labor Review

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Job openings continue to grow in 2012, hires and separations less so

At the end of 2012—42 months after the recession—job openings, hires, and separations had not yet reached their prerecession levels and rates; all three measures, however, had levels higher than they had the previous year.

Data from the Bureau of Labor Statistics Job Openings and Labor Turnover Survey (JOLTS) indicate that the job openings level and rate continued to grow during 2012. On an annual basis, data that are not seasonally adjusted show that the average monthly number of job openings increased from 3.2 million in 2011 to 3.6 million in 2012. The average monthly job openings rate rose from 2.3 percent to 2.6 percent. The increases in average monthly hires and separations, however, were not as large. From 2011 to 2012, the average monthly number of hires ticked up from 4.1 million to 4.3 million while the rate held steady at 3.2 percent. Besides illustrating the preceding data, the following tabulation shows that the average monthly number of separations increased from 4.0 million in 2011 to 4.1 million in 2012 while the average monthly rate rose from 3.0 percent to 3.1 percent between the 2 years (data not seasonally adjusted):

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Number (thousands)

Category	*2010*	*2011*	*2012*
Job openings	2,848	3,151	3,632

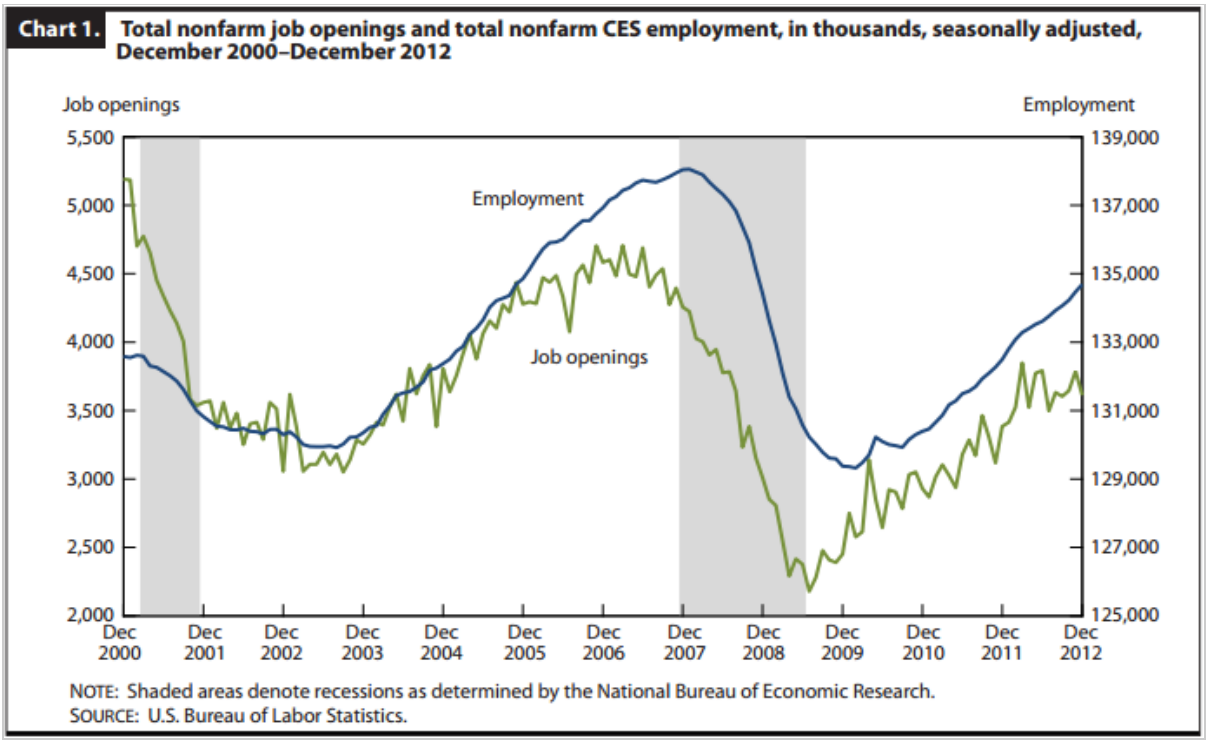
		Number (thousands)	
Hires	4,051	4,140	4,333
Separations	3,971	3,969	4,140
		Rate (percent)	
Category	*2010*	*2011*	*2012*
Job openings	2.2	2.3	2.6
Hires	3.1	3.2	3.2
Separations	3	3	3.1

JOLTS breaks down separations into quits, layoffs and discharges, and other separations. In 2012, quits contributed the most to the increase in separations. The average monthly number of quits increased from 1.9 million in 2011 to 2.1 million in 2012. The average monthly number of layoffs and discharges remained stable at 1.7 million between the 2 years.

JOLTS data provide measures of job openings, hires, total separations, quits, layoffs and discharges, and other separations on a monthly basis by industry[1] and geographic region.[2] JOLTS gauges labor demand and worker flows by collecting data from a sample of approximately 16,400 nonfarm business establishments. This article reviews changes in the estimates generated by the JOLTS measures over 2012, as well as how these measures have fared since the most recent recession. To do so, 2012 JOLTS data are compared with previous years' JOLTS data as well as other statistical series. JOLTS data are available beginning December 2000. In what follows, monthly averages or annual totals, neither of which are seasonally adjusted, are presented. Data for a specific month (e.g., December 2012) or quarter (e.g., the second quarter of 2012) are seasonally adjusted.

Job openings

Job openings—the number of openings on the last business day of the reference month—are a procyclical measure of the demand side of the labor market. That is to say, during an economic contraction employers tend to demand less labor, reducing the number of job openings they have or shedding them entirely. As labor demand decreases, employment also tends to decrease. By contrast, during an economic expansion employers tend to demand more labor, increasing the number of job openings they have. As labor demand rises, employment tends to rise. All in all, then, job openings and the Current Employment Statistics (CES)[3] nonfarm payroll employment estimates tend to have similar growth trends.[4] (See chart 1.)



In 2012, as well as in 2011, the total number of nonfarm job openings and nonfarm payroll employment tracked consistently. On an annual basis, the average monthly number of job openings increased 15.3 percent in 2012, from 3.2 million to 3.6 million. By way of comparison, in 2011 the average monthly number of job openings grew 10.6 percent. Similarly, nonfarm payroll employment showed a positive, increasing percentage of growth for both years. In 2012, average monthly CES employment rose by 1.7 percent over the 2011 figure. The increase in 2011 was 1.2 percent. (See table 1.)

Table 1. Average monthly number of job openings and CES employment, not seasonally adjusted, 2001–2012 (in thousands)

Year	Average monthly number of job openings	Percent change from previous year	Average monthly CES employment	Percent change from previous year
2001	4,287	(1)	131,919	0.0
2002	3,414	–20.4	130,450	–1.1
2003	3,211	–5.9	130,100	–.3
2004	3,580	11.5	131,509	1.1
2005	4,058	13.4	133,747	1.7
2006	4,428	9.1	136,125	1.8
2007	4,484	1.3	137,645	1.1
2008	3,694	–17.6	136,852	–.6
2009	2,451	–33.7	130,876	–4.4
2010	2,848	16.2	129,917	–.7
2011	3,151	10.6	131,497	1.2
2012	3,632	15.3	133,739	1.7

Notes:

(1) The JOLTS program did not begin until 2001, so there are no data for the previous year.Source: U.S. Bureau of Labor Statistics.

On a quarterly basis, in 2012 the number of job openings was up 10.0 percent in the first quarter, up 2.8 percent in the second quarter, down 3.2 percent in the third quarter, and up 2.9 percent in the final quarter. The low for the year was 3.4 million, in January, the high 3.8 million, in March.

Following the recession,[5] total nonfarm job openings trended upward, from 2.4 million in June 2009 to 3.6 million in December 2012. The number of openings still has not reached the 4.3 million level at which it stood at the beginning of the recession, in December 2007.

Job openings by industry and region. On an annual basis, the total nonfarm average monthly job openings rate rose from 2.3 percent in 2011 to 2.6 percent in 2012. Real estate and rental and leasing saw the largest percent increase in the average monthly job openings rate, a 33.3-percent rise, from 2.1 percent to 2.8 percent over the year. Next was nondurable goods manufacturing, which grew 31.3 percent, from 1.6 percent to 2.1 percent. The rate declined the most in mining and logging, which posted a 39.4-percent drop over the year, from 3.3 percent to 2.0 percent. Information was next, falling 7.9 percent, from 3.8 percent to 3.5 percent. Table 2 shows the average monthly number of job openings and the average rate of job openings, by industry, for 2011 and 2012.

Table 2. Average monthly number of job openings(1) and average monthly rate of job openings,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Total	3,151	3,632	481	15.3	2.3	2.6	0.3	13.0
Total private	2,821	3,251	430	15.2	2.5	2.8	.3	12.0
Mining and logging	26	18	–8	–3.8	3.3	2.0	–1.3	–39.4
Construction	75	81	6	8.0	1.3	1.4	.1	7.7
Manufacturing	227	271	44	19.4	1.9	2.2	.3	15.8
Durable goods	157	176	19	12.1	2.1	2.3	.2	9.5
Nondurable goods	71	95	24	33.8	1.6	2.1	.5	31.3
Trade, transportation, and utilities	540	615	75	13.9	2.1	2.4	.3	14.3
Wholesale trade	112	131	19	17.0	2.0	2.3	.3	15.0
Retail trade	316	371	55	17.4	2.1	2.4	.3	14.3
Transportation, warehousing, and utilities	112	113	1	.9	2.3	2.2	–.1	–4.3
Information	104	97	–7	–6.7	3.8	3.5	–.3	–7.9
Financial activities	203	240	37	18.2	2.6	3.0	.4	15.4
Finance and insurance	162	183	21	13.0	2.7	3.0	.3	11.1
Real estate and rental and leasing	41	57	16	39.0	2.1	2.8	.7	33.3
Professional and business services	589	676	87	14.8	3.3	3.6	.3	9.1
Education and health services	575	676	101	17.6	2.8	3.2	.4	14.3
Educational services	62	62	0	.0	1.9	1.8	–.1	–5.3
Health care and social assistance	513	613	100	19.5	3.0	3.5	.5	16.7
Leisure and hospitality	362	438	76	21.0	2.6	3.1	.5	19.2

See footnotes at end of table.

Table 2. Average monthly number of job openings(1) and average monthly rate of job openings,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Arts, entertainment, and recreation	46	55	9	19.6	2.3	2.7	.4	17.4
Accommodations and food services	316	383	67	21.2	2.7	3.2	.5	18.5
Other services	119	140	21	17.6	2.2	2.5	.3	13.6
Government	330	381	51	15.5	1.5	1.7	.2	13.3
Federal	53	66	13	24.5	1.8	2.3	.5	27.8
State and local	277	314	37	13.4	1.4	1.6	.2	14.3

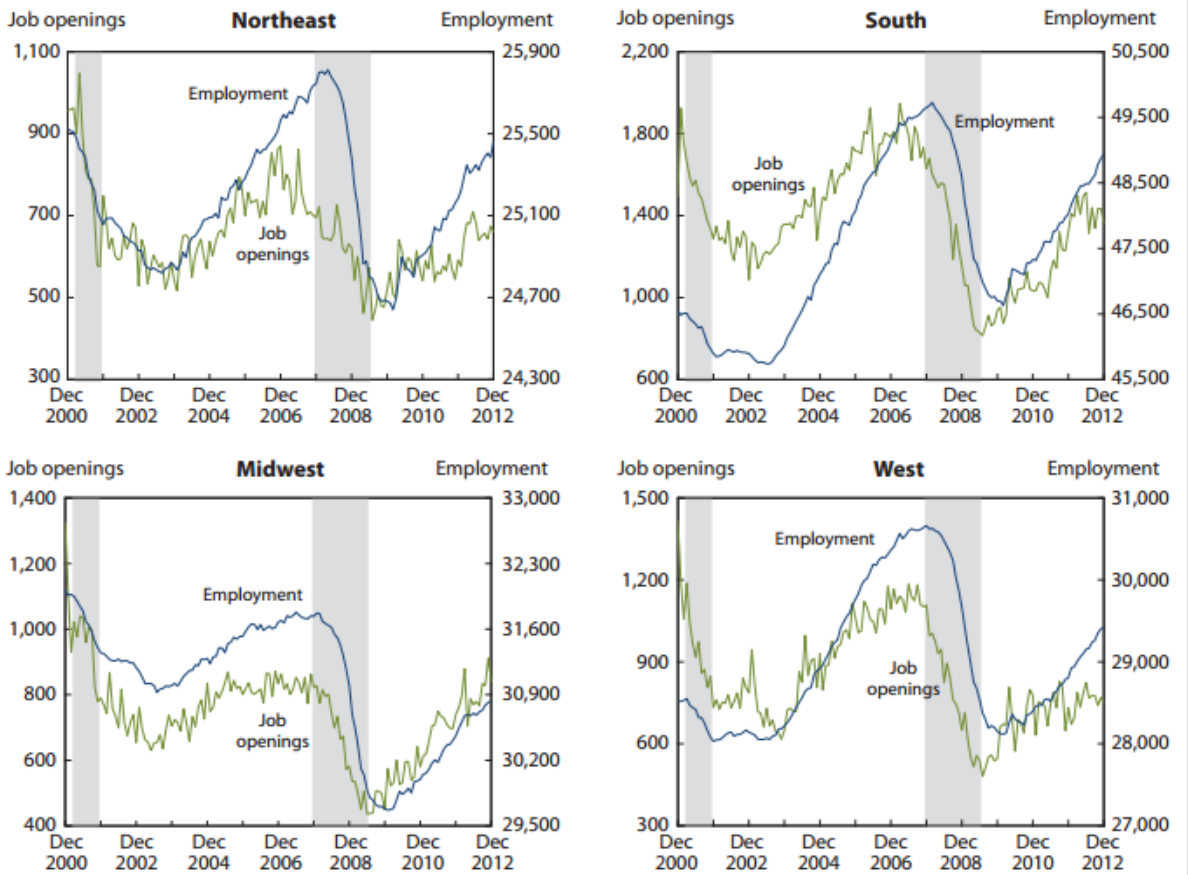
Notes:

(1) The average number of monthly job openings is the average number of job openings on the last business day of each month during the year.
(2) The average rate of monthly job openings is the average number of job openings on the last business day of the month during the year, as a percentage of average employment plus the average number of job openings.
Source: U.S. Bureau of Labor Statistics.

In 2012, the West's average monthly job openings rate was unchanged from 2011. The other three regions' rates increased between those years. As the following tabulation shows, of the four regions,[6] the South experienced the highest increase in its average monthly job openings rate, moving from 2.3 percent in 2011 to 2.8 percent in 2012 (see also chart 2):

Job openings	*Northeast*	*South*	*Midwest*	*West*
Number (thousands):				
2011	574	1,144	697	736
2012	658	1,417	801	756
Change, 2011–2012	84	273	104	20
Percent change, 2011–2012	14.6	23.9	14.9	2.7
Rate (percent):				
2011	2.3	2.3	2.3	2.5
2012	2.5	2.8	2.6	2.5
Change, 2011–2012	.2	.5	.3	.0
Percent change, 2011–2012	8.7	21.7	13.0	.0

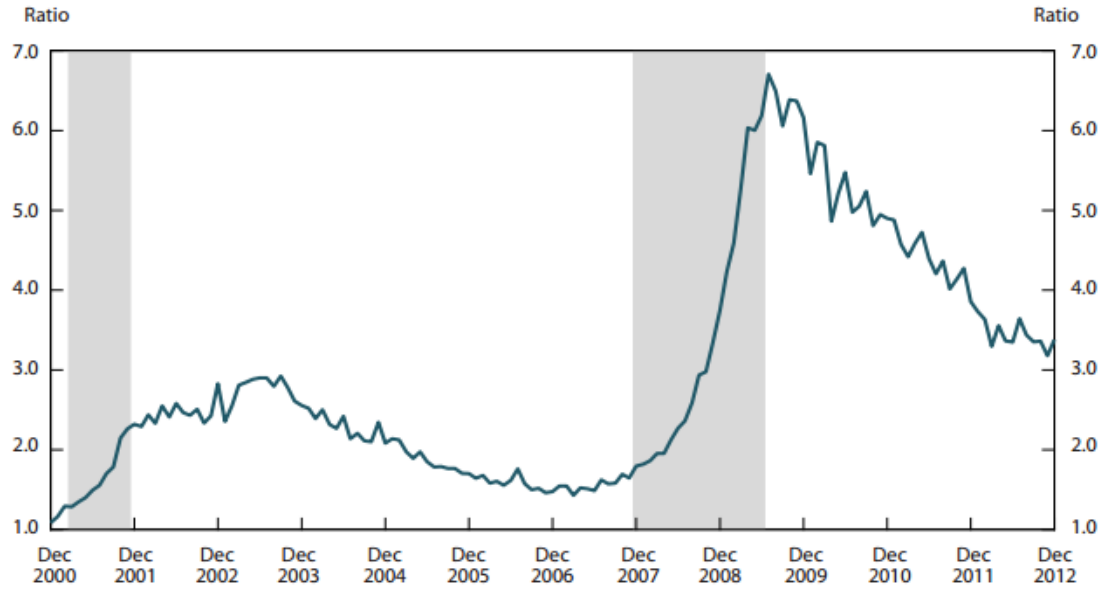
Chart 2. Total nonfarm job openings and total nonfarm CES employment, U.S. regions, in thousands, seasonally adjusted, December 2000–December 2012



NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics.

Job openings and unemployment . The ratio of unemployed people[7] per job opening changes over time. (See chart 3.) In 2012, the ratio decreased from 3.7 in January to 3.4 in December. The ratio has declined since the end of the recession in June 2009, when it was 6.2; however, it still has not fallen to the 1.8 level at which it stood at the beginning of the recession, in December 2007.

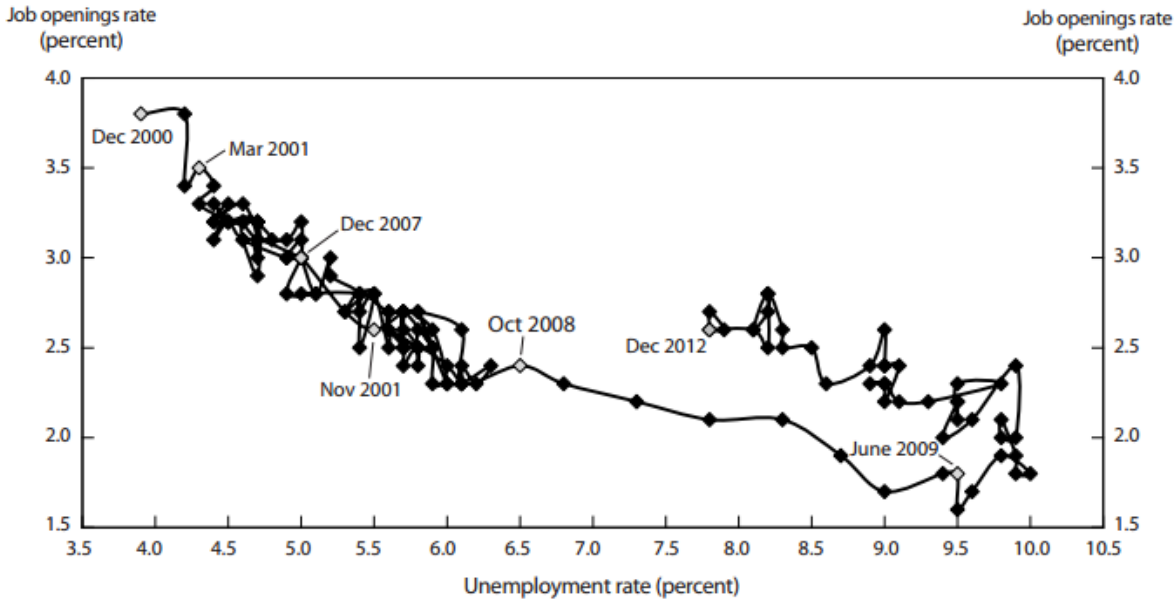
Chart 3. Ratio of unemployed people per job opening, seasonally adjusted, December 2000–December 2012



NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics.

The Beveridge curve highlights the inverse relationship between unfilled labor demand (as measured by the job openings rate) and unused labor supply (as measured by the unemployment rate) over time. The curve shows the job openings rate and the unemployment rate by month. (See chart 4.) The curve is downward sloping and reflects the state of the economy in two ways: through movements along the curve or through shifts in the curve toward or away from the origin. The combination of a high number of job openings and low unemployment is seen in an economic expansion and results in a position high and to the left on the graph. The combination of a low number of job openings and high unemployment results in a position low and to the right on the graph. Greater differences between the job openings rate and the unemployment rate cause the curve to shift outward from the origin. When job matching is inefficient, unemployment is high and more job openings are left unfilled. In 2012, the points on the Beveridge curve moved slightly upward and to the left as the job openings rate went from 2.5 percent in January to 2.6 percent in December while the unemployment rate went from 8.3 percent in January to 7.8 percent in December.

Chart 4. The Beveridge curve (job openings rate vs. unemployment rate), seasonally adjusted, December 2000–December 2012



SOURCE: U.S. Bureau of Labor Statistics.

From the start of the recent recession, in December 2007, through the middle of 2009, the economy's position along the Beveridge curve moved lower and further to the right as the job openings rate declined and the unemployment rate rose. The lowest point on the curve, reflecting the JOLTS job openings series low of 1.6 percent, was in July 2009, while the furthest point to the right occurred in October 2009, when the unemployment rate was 10.0 percent. During 2010, the points on the curve shifted outward. In 2012, as in 2011, the points on the curve continued to stay in this new position. There has been debate among economists as to whether the shift is due to structural or cyclical factors.[8]

Definitions of JOLTS terms

Job openings are the number of openings on the last business day of the reference month.

Hires are all additions of personnel to the payroll during the reference month.

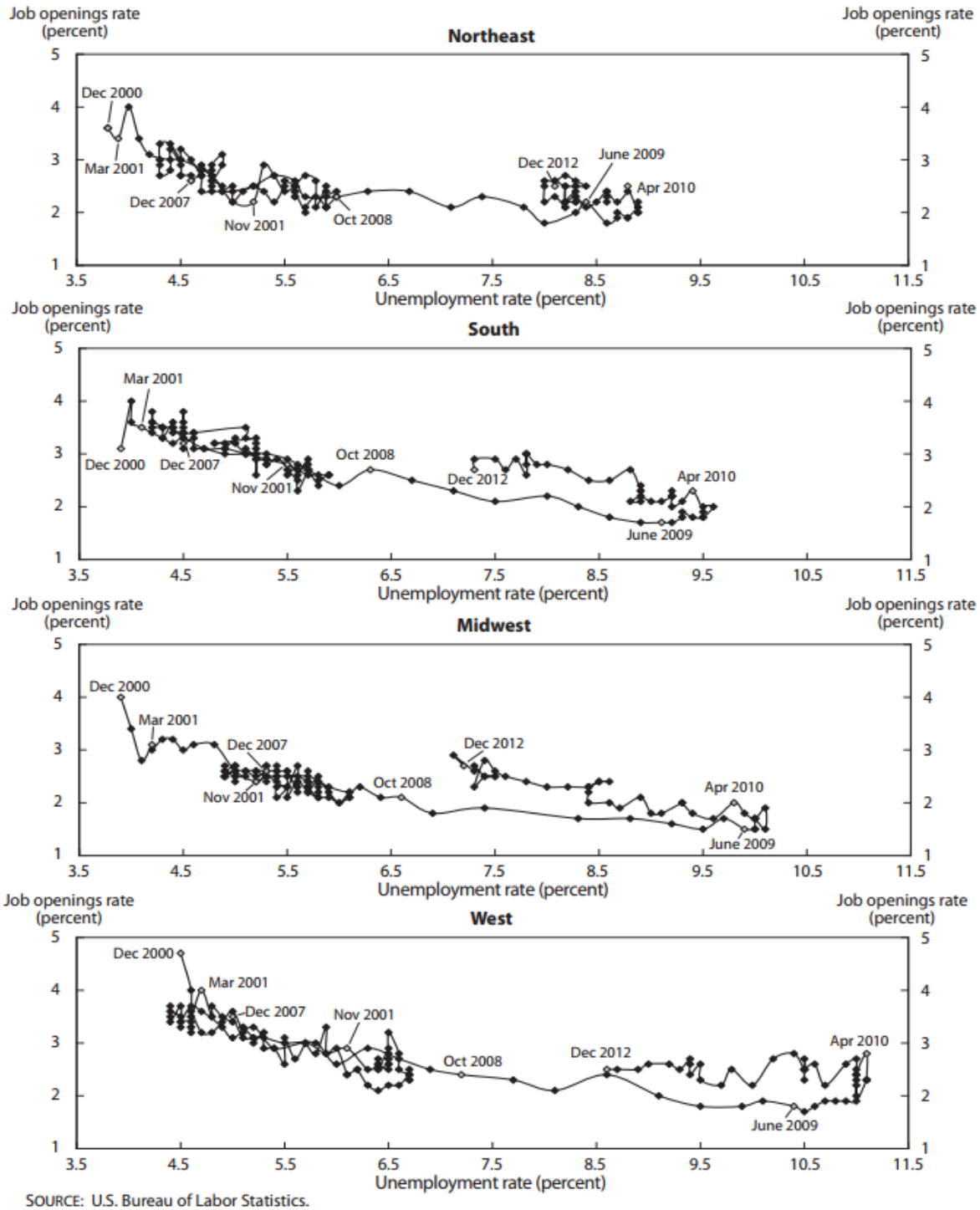
Total separations are the number of employees separated from payroll during the reference month.

- *Quits* are separations in which employees left a job voluntarily but did not retire or transfer.
- *Layoffs and discharges* are involuntary separations initiated by employers.
- *Other separations* are separations due to retirement, transfers, or deaths and separations caused by disability.

Beveridge curves also can be calculated for the four regions, with the use of JOLTS and Local Area Unemployment Statistics data.[9] In 2012, the Beveridge curve for the Northeast moved upward and slightly to the right as the job openings rate rose from 2.2 percent in January to 2.5 percent in December while the unemployment rate grew from 8.0 percent in January to 8.1 percent in December. The Beveridge curve for the South moved slightly downward and to the left, with the job openings rate dropping from 2.8 percent in January to 2.7 percent in December and the unemployment rate falling from 8.0 percent in January to 7.3 percent in December. The Beveridge curve for the Midwest moved upward and to the left as the job openings rate increased from 2.5 percent in January to 2.7 percent in December while the unemployment rate fell from 7.6 percent in January to 7.2 percent in December. The Beveridge curve for the West moved up and to the left, with the job openings rate rising from 2.2 percent in January to 2.5 percent in December while the unemployment rate dropped from 9.7 percent in January to 8.6 percent in December.

In the first half of 2010, all of the regional Beveridge curves shifted outward, as did the national curve; however, they all shifted in various ways and degrees and continued to develop differently during the recovery. (See chart 5.) In the Midwest, although the initial shift in the curve was not as large as that in the other regions, by 2012 the curve had moved farther out on the grid. By contrast, the West experienced a large initial shift in its curve, but in 2012 the curve moved closer to its 2010 location, exhibiting an increase in job-matching efficiency.

Chart 5. Beveridge curves (job openings rates vs. unemployment rates) for U.S. regions, seasonally adjusted, December 2000–December 2012



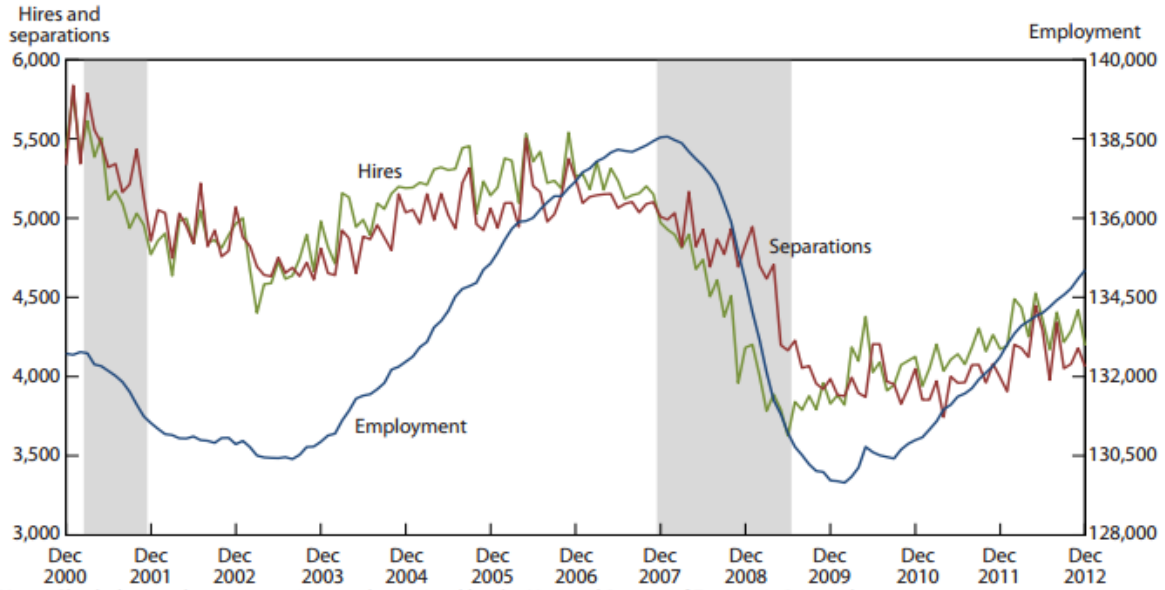
SOURCE: U.S. Bureau of Labor Statistics.

Hires and separations

Hires, along with separations, demonstrate another important aspect of the labor market: worker flow. (See charts 6 and 7.) The number of hires is a procyclical measure, rising during an expansion and falling during a recession. The separations measure is more complex. There are three elements within separations: quits, layoffs and discharges, and other separations. Quits, which are voluntary separations, are a procyclical measure; layoffs and discharges,

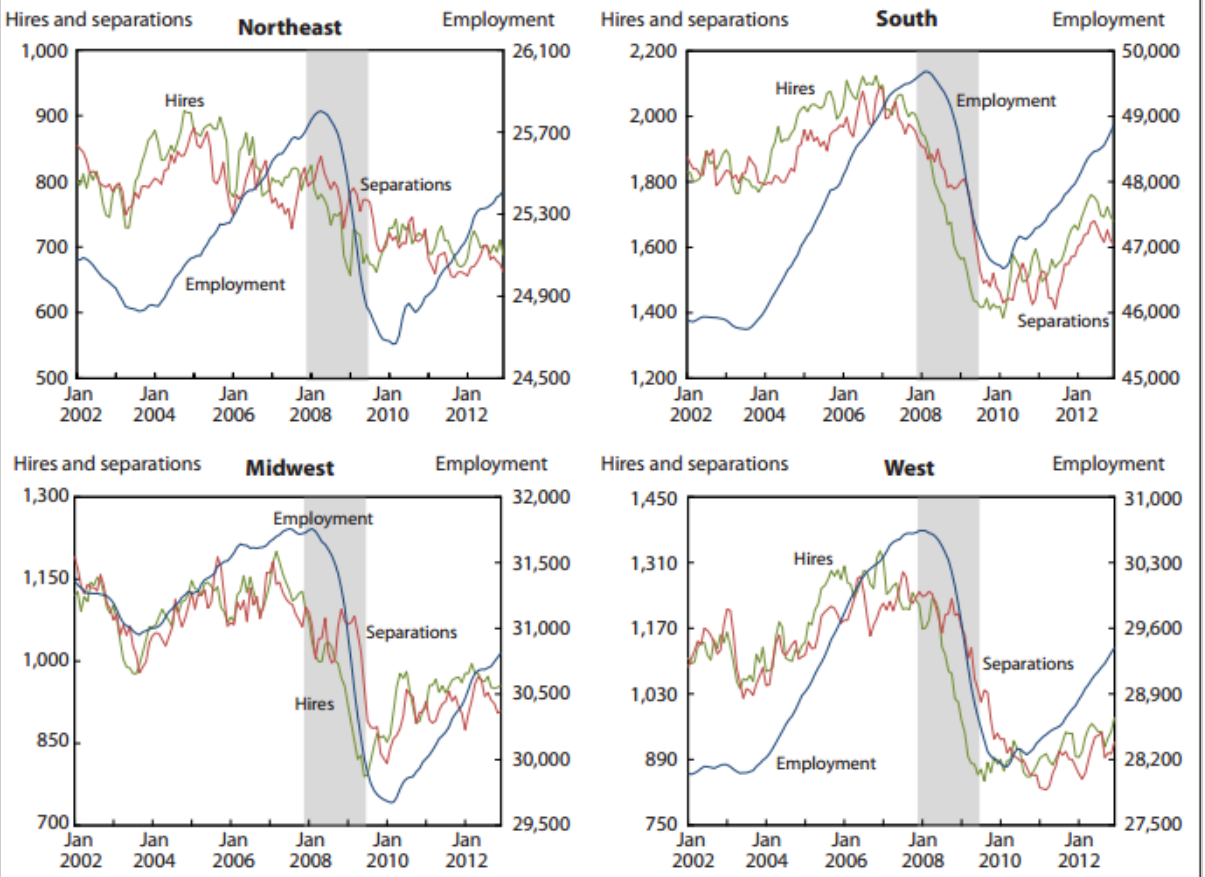
which are involuntary separations, constitute a countercyclical measure. That is, during an expansion, more people quit their jobs and fewer people are laid off. During a recession, more people are laid off and fewer people quit their jobs. These two elements countering each other, but with quits usually predominating, make separations overall a mildly procyclical measure.[10] (See chart 8.) The last element within separations, other separations—which include separations due to retirement, death, and disability, as well as transfers to other locations of the same firm—tends to be procyclical. However, because of its smaller size relative to the other two components of separations, the category of other separations tends not to have a large impact on total separations. (See chart 9.)

Chart 6. Total nonfarm hires, total nonfarm separations, and total nonfarm CES employment, in thousands, seasonally adjusted, December 2000–December 2012



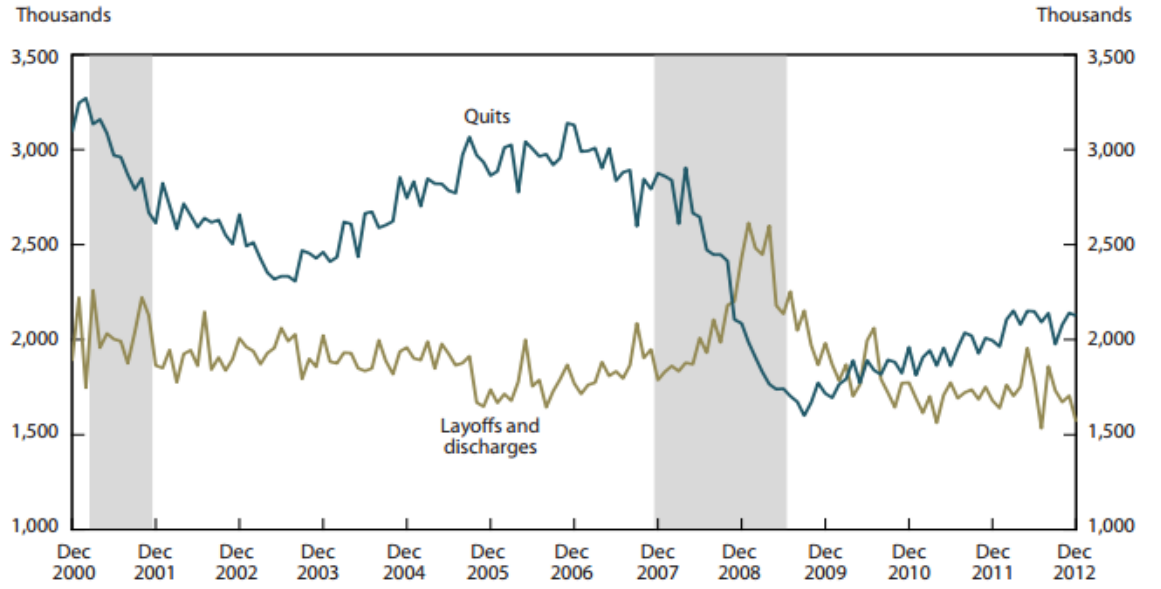
NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics.

Chart 7. Total nonfarm hires, total nonfarm separations, and total nonfarm CES employment, 3-month moving averages, in thousands, seasonally adjusted, January 2002–December 2012



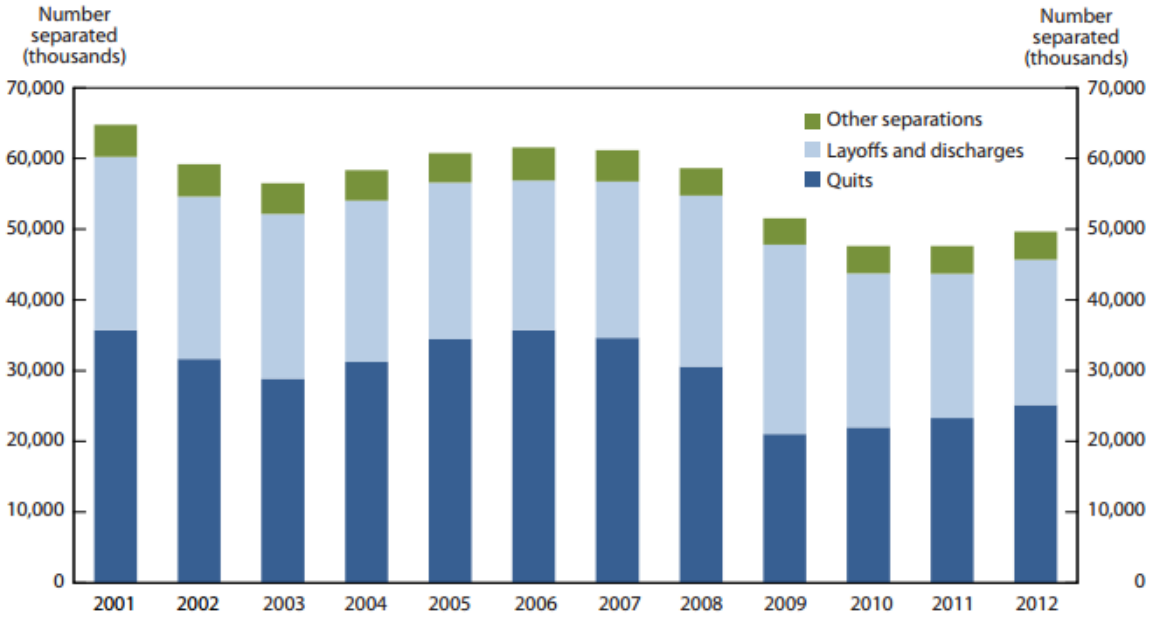
NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics.

Chart 8. Quits, and layoffs and discharges, seasonally adjusted, December 2000–December 2012



NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics.

Chart 9. Components of separations, not seasonally adjusted, 2001–2012



SOURCE: U.S. Bureau of Labor Statistics.

Hires. For the past 3 years, the number of people hired, or number of hires, during the year has increased. The annual number hired rose 4.7 percent, from 49.7 million in 2011 to 52.0 million in 2012. By way of comparison, the annual number hired grew 2.2 percent from 2010 to 2011. (See table 3.) On a quarterly basis, the number of hires was up 4.1 percent in the first quarter of 2012, up 0.1 percent in the second quarter, down 2.6 percent in the third

quarter, and up 0.9 percent in the final quarter. The number of hires reached its 2012 high of 4.5 million in May and fell to a yearly low of 4.2 million in July.

Table 3. Annual number of hires and annual rate of hiring, not seasonally adjusted, 2001–2012 (in thousands)

Year	Number of hires	Percent change from previous year	Annual hires rate
2001	62,948	(1)	47.8
2002	58,583	–6.9	44.9
2003	56,451	–3.6	43.4
2004	60,367	6.9	45.9
2005	63,150	4.6	47.2
2006	63,773	1.0	46.9
2007	62,421	–2.1	45.4
2008	55,128	–11.7	40.3
2009	46,357	–15.9	35.4
2010	48,607	4.9	37.4
2011	49,675	2.2	37.8
2012	51,991	4.7	38.9

Notes:

(1) The JOLTS program did not begin until 2001, so there are no data for the previous year.
Source: U.S. Bureau of Labor Statistics.

Since the end of the recession, the number of hires has been trending upward, from 3.6 million in June 2009 to 4.2 million in December 2012. The number has yet to rise to the 5.0 million level at which it stood at the beginning of the recession, in December 2007.

1. Hires by industry and region. Table 4 gives the annual number of hires and the annual rate of hiring, by industry, for 2011 and 2012. Most industries experienced an increase in their annual hires rate from 2011 to 2012. The total nonfarm annual hires rate rose from 37.8 percent in 2011 to 38.9 percent in 2012. The industries with the greatest percent decreases in their annual hires rate were educational services, which fell 8.6 percent, from 29.0 percent in 2011 to 26.5 percent in 2012, and nondurable goods, which dropped by 7.4 percent, from 28.4 percent in 2011 to 26.3 percent in 2012. The industries with the greatest increases in their annual hires rate were finance and insurance, which grew by 17.1 percent, from 20.5 percent in 2011 to 24.0 percent in 2012, and financial activities, which rose 14.1 percent, from 24.1 percent in 2011 to 27.5 percent in 2012.

Table 4. Annual number of hires(1) and annual rate of hiring,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Total	49,675	51,991	2,316	4.7	37.8	38.9	1.1	2.9
Total private	46,552	48,493	1,941	4.2	42.5	43.4	.9	2.1
Mining and logging	335	380.0	45	13.4	42.5	44.7	2.2	5.2
Construction	4,098	3,900	–198	–4.8	74.1	69.1	–5.0	–6.7
Manufacturing	3,035	2,967	–68	–2.2	25.9	24.9	–1.0	–3.9
Durable goods	1,771	1,794	23	1.3	24.4	24.0	–.4	–1.6
Nondurable goods	1,263	1,174	–89	–7.0	28.4	26.3	–2.1	–7.4

See footnotes at end of table.

Table 4. Annual number of hires(1) and annual rate of hiring,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Trade, transportation, and utilities	9,946	10,447	501	5.0	39.7	40.9	1.2	3.0
Wholesale trade	1,485	1,539	54	3.6	26.8	27.1	.3	1.1
Retail trade	6,772	6,995	223	3.3	46.2	47.0	.8	1.7
Transportation, warehousing, and utilities	1,690	1,912	222	13.1	34.8	38.5	3.7	10.6
Information	732	743	11	1.5	27.3	27.7	.4	1.5
Financial activities	1,852	2,143	291	15.7	24.1	27.5	3.4	14.1
Finance and insurance	1,180	1,402	222	18.8	20.5	24.0	3.5	17.1
Real estate and rental and leasing	669	739	70	10.5	34.7	37.9	3.2	9.2
Professional and business services	10,181	10,582	401	3.9	58.7	59.0	.3	.5
Education and health services	5,681	5,997	316	5.6	28.6	29.5	.9	3.1
Educational services	941	886	–55	–5.8	29.0	26.5	–2.5	–8.6
Health care and social assistance	4,741	5,112	371	7.8	28.5	30.1	1.6	5.6
Leisure and hospitality	8,414	8,999	585	7.0	63.0	65.5	2.5	4.0
Arts, entertainment, and recreation	1,445	1,533	88	6.1	75.3	78.0	2.7	3.6
Accommodations and food services	6,970	7,465	495	7.1	61.0	63.4	2.4	3.9
Other services	2,279	2,336	57	2.5	42.5	43.0	.5	1.2
Government	3,123	3,503	380	12.2	14.1	16.0	1.9	13.5
Federal	332	353	21	6.3	11.6	12.5	.9	7.8
State and local	2,790	3,148	358	12.8	14.5	16.5	2.0	13.8

Notes:

(1) The annual number of hires is the total number of hires during the entire year.

(2) The annual rate of hiring is the number of hires during the entire year, as a percentage of annual average employment.

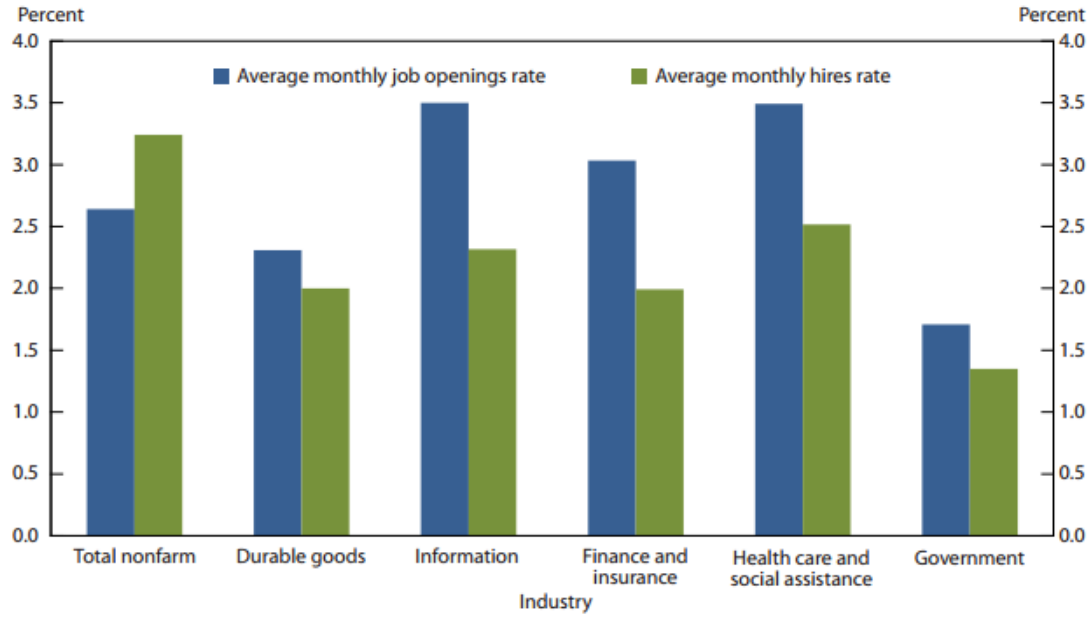
Source: U.S. Bureau of Labor Statistics.

All U.S. regions experienced increases in their number of hires; however, the Northeast's annual hires rate in 2012, 33.3 percent, was unchanged from the rate in 2011, and the Midwest's annual hires rate declined, from 38.5 percent in 2011 to 38.2 percent in 2012. Besides illustrating these changes, the following tabulation shows that the South was the region with the highest percent increase in its annual hires rate between the 2 years, moving from 39.5 percent in 2011 to 42.2 percent in 2012 (see also chart 7):

Hires	*Northeast*	*South*	*Midwest*	*West*
Number (thousands):				
2011	8,317	18,899	11,505	10,954
2012	8,443	20,543	11,613	11,395
Change, 2011–2012	126	1,644	108	441
Percent change, 2011–2012	1.5	8.7	.9	4.0
Rate (percent):				
2011	33.3	39.5	38.5	38.0
2012	33.3	42.2	38.2	38.8
Change, 2011–2012	.0	2.7	–.3	.8
Percent change, 2011–2012	.0	6.8	–.8	2.1

2. Hires and job openings. Typically, the average monthly hires rate exceeds the average monthly job openings rate. The reason is that the job openings rate is a stock measure, meaning that it is measured only at a point in time (the last business day of the month) rather than on an accumulating flow basis. In contrast, the hires rate is a flow measure covering every person hired during the month. As expected, in 2012 the total nonfarm average monthly hires rate, 3.2 percent, exceeded the average monthly job openings rate, 2.6 percent. However, in some industries the hires rate did not exceed the job openings rate. (See chart 10.) There may be various reasons for this reversal. For example, employers in these industries may be having difficulty finding workers with the qualifications they want at the wage they are offering. Alternatively, employers could be hesitant about filling a vacancy because they have doubts about the state of the economy.

Chart 10. Industries in which the average monthly job openings rate exceeded the average monthly hires rate vs. total nonfarm average monthly job openings rate and average monthly hires rate, not seasonally adjusted, 2012

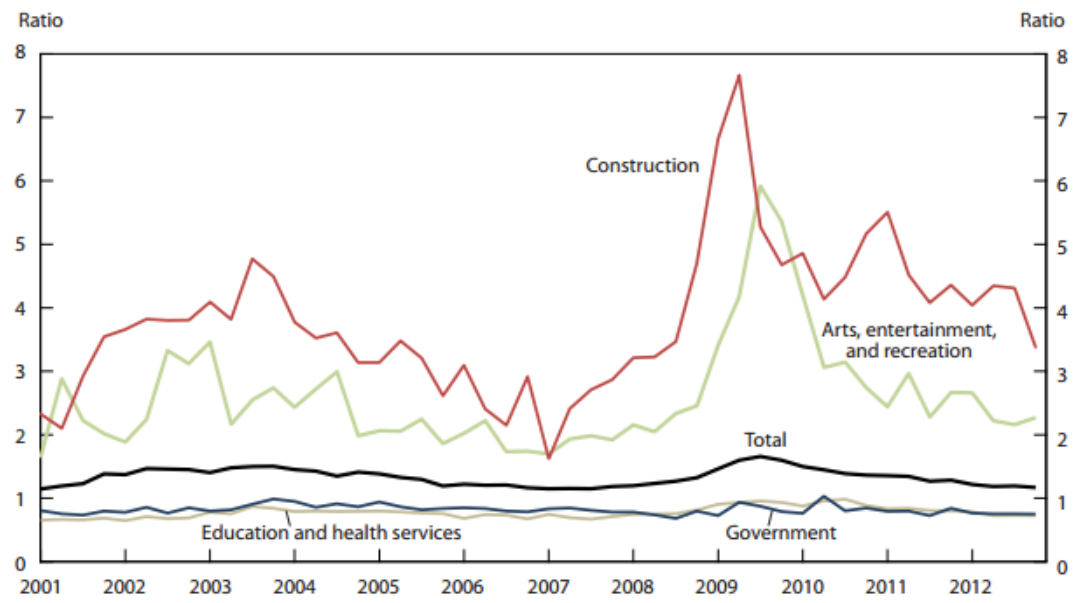


SOURCE: U.S. Bureau of Labor Statistics.

Another way to gauge potential unmet labor demand in different industries is through the stock-flow vacancy–yield ratio, the ratio of hires to job openings. This measure can provide valuable insight into the labor market over time.[11] For example, in December 2012 there were 4,195,000 hires and 3,612,000 job openings, so the vacancy–yield ratio for that month and year was 1.16 (4,195,000/3,612,000).

The vacancy–yield ratios for construction and for arts, entertainment, and recreation often are the most affected by the business cycle. Because of monthly fluctuations in the data, seasonally adjusted quarterly estimates are used. In the first quarter of 2012, construction had 4.04 hires per job opening and arts, entertainment, and recreation had 2.66 hires per job opening. Both ratios decreased by the fourth quarter, to 3.38 and 2.27 hires per job opening, respectively. This trend matches the 2012 total nonfarm trend, which showed a decrease from 1.22 hires per job opening in the first quarter to 1.17 hires per job opening in the final quarter. (See chart 11.)

Chart 11. Quarterly vacancy–yield ratio, seasonally adjusted, 2001–2012



SOURCE: U.S. Bureau of Labor Statistics.

Separations. In 2012, the number of workers separated from their jobs, or, simply, number of separations, during the year began to increase, after having leveled off the previous year. The annual number of separations rose 4.3 percent, from 47.6 million in 2011 to 49.7 million in 2012. By contrast, in 2011 the annual number of separations held steady at its 2010 level of 47.6 million. (See table 5.) On a quarterly basis, the number of separations was up 2.1 percent in the first quarter of 2012, up 4.7 percent in the second quarter, down 3.8 percent in the third quarter, and down 0.4 percent in the final quarter. The number of separations stood at its 2012 low of 3.9 million in January and reached a yearly high of 4.4 million in May. Table 6 presents the annual number of separations and the annual rate of separations, by industry, for 2011 and 2012.

Table 5. Annual separations, not seasonally adjusted, 2001–2012

Year	Number (thousands)	Percent change from previous year	Annual rate (percent)

See footnotes at end of table.

Table 5. Annual separations, not seasonally adjusted, 2001–2012

Year	Number (thousands)	Percent change from previous year	Annual rate (percent)
2001	64,765	(1)	49.1
2002	59,190	–8.6	45.4
2003	56,487	–4.6	43.5
2004	58,340	3.3	44.4
2005	60,733	4.1	45.4
2006	61,565	1.4	45.2
2007	61,162	–.7	44.4
2008	58,627	–4.1	42.9
2009	51,532	–12.1	39.4
2010	47,646	–7.5	36.7
2011	47,626	.0	36.2
2012	49,676	4.3	37.1

Notes:

(1) The JOLTS program did not begin until 2001, so there are no data for the previous year.
Source: U.S. Bureau of Labor Statistics.

Table 6. Annual number of separations(1) and annual rate of separations,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Total	47,626	49,676	2,050	4.3	36.2	37.1	0.9	2.5
Total private	44,173	46,152	1,979	4.5	40.4	41.3	.9	2.2
Mining and logging	237	354.0	117	49.4	30.1	41.6	11.5	38.2
Construction	3,906	3,808	–98	–2.5	70.6	67.5	–3.1	–4.4
Manufacturing	2,820	2,808	–12	–.4	24.0	23.6	–.4	–1.7
Durable goods	1,538	1,659	121	7.9	21.1	22.2	1.1	5.2
Nondurable goods	1,283	1,146	–137	–10.7	28.8	25.7	–3.1	–10.8
Trade, transportation, and utilities	9,436	9,924	488	5.2	37.6	38.9	1.3	3.5
Wholesale trade	1,365	1,429	64	4.7	24.6	25.2	.6	2.4
Retail trade	6,476	6,757	281	4.3	44.2	45.4	1.2	2.7
Transportation, warehousing, and utilities	1,598	1,739	141	8.8	32.9	35.0	2.1	6.4
Information	727	749	22	3.0	27.2	28.0	.8	2.9
Financial activities	1,815	2,043	228	12.6	23.6	26.2	2.6	11.0
Finance and insurance	1,147	1,322	175	15.3	19.9	22.7	2.8	14.1
Real estate and rental and leasing	669	721	52	7.8	34.7	36.9	2.2	6.3
Professional and business services	9,616	10,004	388	4.0	55.5	55.8	.3	.5
Education and health services	5,269	5,578	309	5.9	26.5	27.5	1.0	3.8
Educational services	810	841	31	3.8	24.9	25.1	.2	.8

See footnotes at end of table.

Table 6. Annual number of separations(1) and annual rate of separations,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Health care and social assistance	4,459	4,740	281	6.3	26.8	27.9	1.1	4.1
Leisure and hospitality	8,117	8,616	499	6.1	60.8	62.7	1.9	3.1
Arts, entertainment, and recreation	1,472	1,450	–22	–1.5	76.7	73.8	–2.9	–3.8
Accommodations and food services	6,643	7,163	520	7.8	58.1	60.8	2.7	4.6
Other services	2,228	2,268	40	1.8	41.6	41.7	.1	.2
Government	3,453	3,525	72	2.1	15.6	16.1	.5	3.2
Federal	370	389	19	5.1	12.9	13.8	.9	7.0
State and local	3,083	3,135	52	1.7	16.0	16.4	.4	2.5

Notes:

(1) The annual number of separations is the total number of separations during the entire year.
(2) The annual rate of separations is the number of separations during the entire year, as a percentage of annual average employment.
Source: U.S. Bureau of Labor Statistics.

After the end of the recession, the number of separations trended downward, from 4.2 million in June 2009 to a trough of 3.7 million in April 2011. Since then, the number of separations has increased steadily, reaching 4.1 million by the end of 2012. The main driver of the increase was a rise in the number of quits. (See chart 8.) The number of separations has yet to reach the level of 5.0 million at which it stood at the beginning of the recession, in December 2007.

1. Quits. The total number of people quitting their jobs, or, simply, number of quits, during the year has increased for the past 3 years. The annual number of quits increased 7.8 percent from 2011 to 2012, rising from 23.3 million to 25.1 million. By way of comparison, it had increased 6.1 percent from 2010 to 2011. The following tabulation gives level, percent change, and rate statistics (not seasonally adjusted) on quits over the 2-year span:

Year	*Number of quits (thousands)*	*Percent change from previous year*	*Rate of quits (percent)*
2010	21,978	4.5	16.9
2011	23,313	6.1	17.7
2012	25,132	7.8	18.8

On a quarterly basis, the number of quits rose 4.9 percent in the first quarter of 2012, fell 2.5 percent in the second quarter and another 2.7 percent in the third quarter, and grew 2.2 percent in the final quarter. The number of quits stood at its 2012 low of 2.0 million in January and reached a yearly high of 2.2 million in March.

Since the end of the recession, the number of quits has been trending upward, from 1.7 million in June 2009 to 2.1 million in December 2012. Still, it has yet to reach its level of 2.9 million at the beginning of the recession, in December 2007.

Table 7 shows the annual number of quits and the annual rate of quits, by industry, for 2011 and 2012. The annual rate of total nonfarm quits increased from 17.7 percent in 2011 to 18.8 percent in 2012. The annual quits rate declined in only two industries: nondurable goods manufacturing, where it fell by 5.1 percent, from 13.7 percent in 2011 to 13.0 percent in 2012; and arts, entertainment, and recreation, in which it dropped by 0.7 percent, from 26.7 percent in 2011 to 26.5 percent in 2012. In 2012, the industries with the largest growth in annual quits rates were mining and logging, where the rate rose 32. 9 percent, from 17.3 percent in 2011 to 23.0 percent in 2012, and the federal government, which saw an increase of 20.5 percent, from 3.9 percent in 2011 to 4.7 percent in 2012.

Table 7. Annual number of quits(1) and annual rate of quits,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Total	23,313	25,132	1,819	7.8	17.7	18.8	1.1	6.2
Total private	21,905	23,589	1,684	7.7	20.0	21.1	1.1	5.5
Mining and logging	136	196.0	60	44.1	17.3	23.0	5.7	32.9
Construction	924	946	22	2.4	16.7	16.8	.1	.6
Manufacturing	1,247	1,284	37	3.0	10.6	10.8	.2	1.9
Durable goods	637	706	69	10.8	8.8	9.5	.7	8.0
Nondurable goods	612	579	–33	–5.4	13.7	13.0	–.7	–5.1
Trade, transportation, and utilities	5,170	5,530	360	7.0	20.6	21.7	1.1	5.3
Wholesale trade	614	688	74	12.1	11.1	12.1	1.0	9.0
Retail trade	3,826	3,984	158	4.1	26.1	26.8	.7	2.7
Transportation, warehousing, and utilities	729	855	126	17.3	15.0	17.2	2.2	14.7
Information	389	431	42	10.8	14.5	16.1	1.6	11.0
Financial activities	967	1,065	98	10.1	12.6	13.7	1.1	8.7
Finance and insurance	644	694	50	7.8	11.2	11.9	.7	6.3
Real estate and rental and leasing	325	371	46	14.2	16.9	19.0	2.1	12.4
Professional and business services	4,421	4,622	201	4.5	25.5	25.8	.3	1.2
Education and health services	2,910	3,203	293	10.1	14.6	15.8	1.2	8.2
Educational services	373	395	22	5.9	11.5	11.8	.3	2.6
Health care and social assistance	2,536	2,808	272	10.7	15.2	16.5	1.3	8.6
Leisure and hospitality	4,722	5,196	474	10.0	35.4	37.8	2.4	6.8
Arts, entertainment, and recreation	513	521	8	1.6	26.7	26.5	–.2	–.7
Accommodations and food services	4,209	4,678	469	11.1	36.8	39.7	2.9	7.9
Other services	1,013	1,114	101	10.0	18.9	20.5	1.6	8.5
Government	1,406	1,543	137	9.7	6.4	7.0	.6	9.4
Federal	111	131	20	18.0	3.9	4.7	.8	20.5
State and local	1,295	1,413	118	9.1	6.7	7.4	.7	10.4

Notes:

See footnotes at end of table.

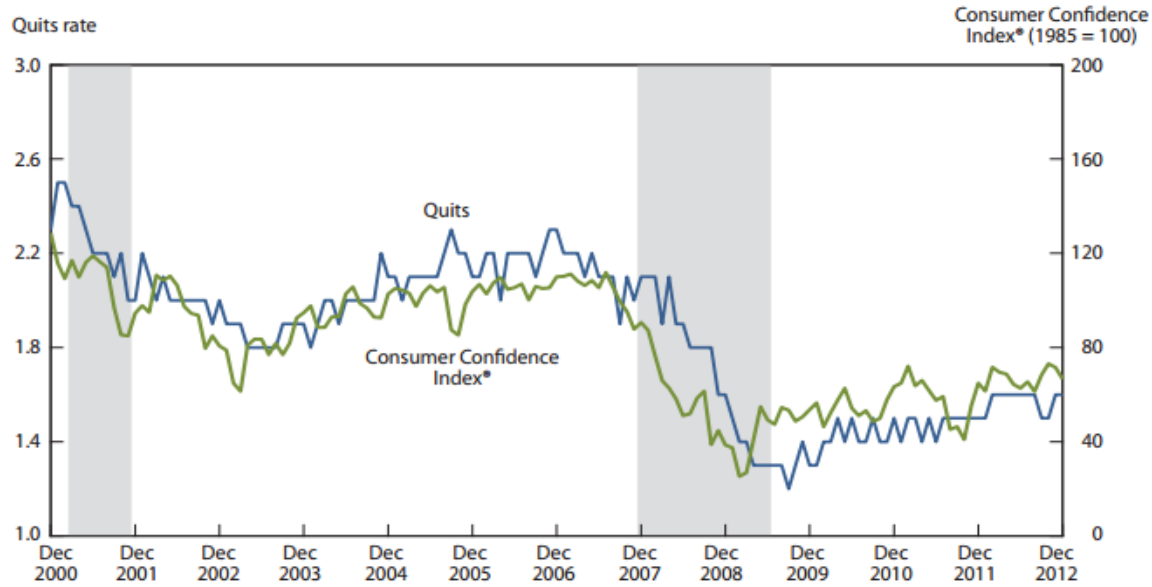
(1) The annual number of quits is the total number of quits during the entire year.
(2) The annual rate of quits is the number of quits during the entire year, as a percentage of annual average employment.
Source: U.S. Bureau of Labor Statistics.

As the following tabulation shows, although the rate of quits increased in all U.S. geographic regions from 2011 to 2012, it grew the most in the South, rising from 19.7 percent in 2011 to 21.8 percent in 2012, and the least in the Midwest, edging up from 18.2 percent in 2011 to 18.4 percent in 2012:

Quits	*Northeast*	*South*	*Midwest*	*West*
Number (thousands):				
2011	3,349	9,396	5,447	5,121
2012	3,669	10,588	5,579	5,296
Change, 2011–2012	320	1,192	132	175
Percent change, 2011–2012	9.6	12.7	2.4	3.4
Rate (percent):				
2011	13.4	19.7	18.2	17.7
2012	14.5	21.8	18.4	18.0
Change, 2011–2012	1.1	2.1	.2	.3
Percent change, 2011–2012	8.2	10.7	1.1	1.7

Because the quits rate generally measures workers' willingness or ability to leave a job, it usually trends similarly to the Consumer Confidence Index .® [12] The quits rate tends to rise when workers believe that another job is available and tends to fall when they believe that jobs are scarce. In 2012, both measures trended slightly upward overall. (See chart 12.)

Chart 12. Quits rate, seasonally adjusted, and Consumer Confidence Index®, December 2000–December 2012



NOTE: Shaded areas denote recessions as determined by the National Bureau of Economic Research.
SOURCE: U.S. Bureau of Labor Statistics and The Conference Board.

2. Layoffs and discharges. The total number of annual layoffs and discharges exhibited a slight increase of 0.7 percent from 2011 to 2012, edging up from 20.4 million to 20.5 million. By contrast, it had decreased 6.3 percent from 2010 to 2011, falling from 21.8 million to 20.4 million. The following tabulation gives level, percent change, and rate statistics (not seasonally adjusted) on layoffs and discharges over the 2-year span:

Year	*Number of layoffs and discharges (thousands)*	*Percent change from previous year*	*Rate of layoffs and discharges (percent)*
2010	21,773	–18.7	16.8
2011	20,401	–6.3	15.5
2012	20,546	.7	15.4

On a quarterly basis, the number of layoffs and discharges was down 0.2 percent in the first quarter of 2012, up 7.6 percent in the second quarter, down 6.7 percent in the third quarter, and down 3.5 percent in the final quarter. The number of layoffs and discharges reached its 2012 high of 2.0 million in May and fell to its low of 1.5 million in July. The July estimate was an all-time series low for seasonally adjusted layoffs and discharges.

From the end of the recession until the first quarter of 2011, the number of layoffs and discharges trended downward, from 2.1 million in June 2009 to 1.6 million in April 2011. Since then, it has been stabilizing. By December 2012, layoffs and discharges measured 1.5 million. During the recession, the number of layoffs and discharges rose rapidly, but since then it has returned to its previous level and then some. (See chart 8.)

Table 8 gives the annual number of layoffs and discharges and the annual rate of layoffs and discharges, by industry, for 2011 and 2012. From 2011 to 2012, the total nonfarm annual layoffs and discharges rate declined in many industries and rose in others. The total nonfarm annual layoffs and discharges rate decreased from 15.5 percent in 2011 to 15.4 percent in 2012. The rate declined the most in nondurable goods manufacturing, an 18.0-percent drop, from 12.8 percent in 2011 to 10.5 percent in 2012. The rate increased the most in mining and logging, rising 51.0 percent, from 10.4 percent in 2011 to 15.7 percent in 2012, and in wholesale trade, increasing 7.9 percent, from 10.1 percent in 2011 to 10.9 percent in 2012.

Table 8. Annual number of layoffs and discharges(1) and annual rate of layoffs and discharges,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Total	20,401	20,546	145	.7	15.5	15.4	–0.1	–0.6
Total private	19,096	19,336	240	1.3	17.5	17.3	–.2	–1.1
Mining and logging	82	134.0	52	63.4	10.4	15.7	5.3	51.0
Construction	2,836	2,745	–91	–3.2	51.3	48.7	–2.6	–5.1
Manufacturing	1,318	1,263	–55	–4.2	11.2	10.6	–.6	–5.4
Durable goods	746	793	47	6.3	10.3	10.6	.3	2.9
Nondurable goods	570	469	–101	–17.7	12.8	10.5	–2.3	–18.0
Trade, transportation, and utilities	3,381	3,493	112	3.3	13.5	13.7	.2	1.5
Wholesale trade	562	621	59	10.5	10.1	10.9	.8	7.9
Retail trade	2,157	2,200	43	2.0	14.7	14.8	.1	.7
Transportation, warehousing, and utilities	663	674	11	1.7	13.7	13.6	–.1	–.7
Information	273	262	–11	–4.0	10.2	9.8	–.4	–3.9
Financial activities	636	607	–29	–4.6	8.3	7.8	–.5	–6.0
Finance and insurance	349	329	–20	–5.7	6.1	5.6	–.5	–8.2

See footnotes at end of table.

Table 8. Annual number of layoffs and discharges(1) and annual rate of layoffs and discharges,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Real estate and rental and leasing	291	280	–11	–3.8	15.1	14.3	–.8	–5.3
Professional and business services	4,587	4,814	227	4.9	26.5	26.9	.4	1.5
Education and health services	1,813	1,900	87	4.8	9.1	9.4	.3	3.3
Educational services	366	383	17	4.6	11.3	11.4	.1	.9
Health care and social assistance	1,447	1,517	70	4.8	8.7	8.9	.2	2.3
Leisure and hospitality	3,090	3,070	–20	–.6	23.1	22.3	–.8	–3.5
Arts, entertainment, and recreation	929	904	–25	–2.7	48.4	46.0	–2.4	–5.0
Accommodations and food services	2,159	2,165	6	.3	18.9	18.4	–.5	–2.6
Other services	1,079	1,046	–33	–3.1	20.1	19.2	–.9	–4.5
Government	1,309	1,210	–99	–7.6	5.9	5.5	–.4	–6.8
Federal	134	128	–6	–4.5	4.7	4.5	–.2	–4.3
State and local	1,176	1,082	–94	–8.0	6.1	5.7	–.4	–6.6

Notes:

(1) The annual number of layoffs and discharges is the total number of layoffs and discharges during the entire year.
(2) The annual rate of layoffs and discharges is the number of layoffs and discharges during the entire year, as a percentage of annual average employment.
Source: U.S. Bureau of Labor Statistics.

As the following tabulation shows, the annual rate of layoffs and discharges fell the most in the Northeast, from 15.7 percent in 2011 to 14.6 percent in 2012, and increased the most in the West, from 15.6 percent in 2011 to 15.9 percent in 2012:

Layoffs and discharges	*Northeast*	*South*	*Midwest*	*West*
Number (thousands):				
2011	3,926	7,418	4,571	4,489
2012	3,700	7,539	4,630	4,679
Change, 2011–2012	–226	121	59	190
Percent change, 2011–2012	–5.8	1.6	1.3	4.2
Rate (percent):				
2011	15.7	15.5	15.3	15.6
2012	14.6	15.5	15.2	15.9
Change, 2011–2012	–1.1	.0	–.1	.3
Percent change, 2011–2012	–7.0	.0	–.7	1.9

3. Other separations. The total annual number of other separations increased both from 2010 to 2011 and then again from 2011 to 2012. Table 9 presents the annual number of other separations and the annual rate of other

separations, by industry, for 2011 and 2012. The following tabulation gives level, percent change, and rate statistics (not seasonally adjusted) on other separations over the 2-year span:

Year	*Number of other separations (thousands)*	*Percent change from previous year*	*Rate of other separations (percent)*
2010	3,893	4.6	3.0
2011	3,911	.5	3.0
2012	3,997	2.2	3.0

Table 9. Annual number of other separations(1) and annual rate of other separations,(2) by industry, not seasonally adjusted, 2011 and 2012

Industry	Number (thousands)				Rate (percent)			
	2011	2012	Change	Percent change	2011	2012	Change	Percent change
Total	3,911	3,997	86	2.2	3.0	3.0	0.0	0.0
Total private	3,172	3,229	57	1.8	2.9	2.9	.0	.0
Mining and logging	21	26.0	5	23.8	2.7	3.1	.4	14.8
Construction	145	119	–26	–17.9	2.6	2.1	–.5	–19.2
Manufacturing	255	262	7	2.7	2.2	2.2	.0	.0
Durable goods	154	160	6	3.9	2.1	2.1	.0	.0
Nondurable goods	101	101	0	.0	2.3	2.3	.0	.0
Trade, transportation, and utilities	885	902	17	1.9	3.5	3.5	.0	.0
Wholesale trade	190	120	–70	–36.8	3.4	2.1	–1.3	–38.2
Retail trade	490	572	82	16.7	3.3	3.8	.5	15.2
Transportation, warehousing, and utilities	205	209	4	2.0	4.2	4.2	.0	.0
Information	63	57	–6	–9.5	2.4	2.1	–.3	–12.5
Financial activities	208	371	163	78.4	2.7	4.8	2.1	77.8
Finance and insurance	154	297	143	92.9	2.7	5.1	2.4	88.9
Real estate and rental and leasing	52	73	21	40.4	2.7	3.7	1.0	37.0
Professional and business services	608	569	–39	–6.4	3.5	3.2	–.3	– 8.6
Education and health services	546	473	–73	–13.4	2.7	2.3	–.4	–14.8
Educational services	72	61	–11	–15.3	2.2	1.8	–.4	–18.2
Health care and social assistance	475	410	–65	–13.7	2.9	2.4	–.5	–17.2
Leisure and hospitality	306	350	44	14.4	2.3	2.5	.2	8.7
Arts, entertainment, and recreation	28	27	–1	–3.6	1.5	1.4	–.1	– 6.7
Accommodations and food services	274	322	48	17.5	2.4	2.7	.3	12.5
Other services	137	111	–26	–19.0	2.6	2.0	–.6	–23.1
Government	740	768	28	3.8	3.4	3.5	.1	2.9
Federal	124	131	7	5.6	4.3	4.7	.4	9.3
State and local	614	639	25	4.1	3.2	3.3	.1	3.1

Notes:

(1) The annual number of other separations is the total number of other separations during the entire year.

(2) The annual rate of other separations is the number of other separations during the entire year, as a percentage of annual average employment.

Source: U.S. Bureau of Labor Statistics.

The number of other separations changed little, rising from 3.9 million in 2011 to 4.0 million in 2012, an increase of 2.2 percent. By comparison, it rose 0.5 percent from 2010 to 2011. On a quarterly basis, the number of other separations decreased 2.5 percent in the first quarter of 2012, increased 2.9 percent in the second quarter, rose 5.1 percent in the third quarter, and fell 0.9 percent in the final quarter. On the whole, in 2012 the number of other separations trended upward, increasing from 302,000 in January to 367,000 in December.

The number of other separations decreased from 346,000 at the beginning of the recession, in December 2007, to 289,000 at the end of the recession, in June 2009. Since then, the series has been trending upward and, like the number of layoffs and discharges, has returned to its prerecession level. Although the number of other separations has exceeded the level at which it stood at the start of the recession, it should be noted that the *rate* of other separations does not typically vary greatly. Throughout JOLTS history, the rate has ranged from 0.2 percent to 0.3 percent. Nevertheless, this measure is an important one to follow, because within the category of other separations is that of employees who leave their job to retire. Some have theorized that the number of other separations decreased during the recession because of an increase in the economic burden on employees and a decrease in income for employees who were planning to retire.[13]

JOLTS DATA SHOW THAT, WHILE LABOR DEMAND, as measured by the number of job openings, increased during 2012, worker flow, in the form of an increase in hires and separations, has been slower to improve. Nevertheless, layoffs and discharges, as well as other separations, have returned to prerecession levels, adding stability to the growth of the labor market as fewer employees are involuntarily separated from their jobs and employees begin to feel more comfortable about retiring again.

SUGGESTED CITATION

Kendra C. Hathaway, "Job openings continue to grow in 2012, hires and separations less so," *Monthly Labor Review,* U.S. Bureau of Labor Statistics, May 2013.

NOTES

[1] The term “industry” can refer to a supersector, sector, or subsector, depending on the context. In analyzing industries, the JOLTS program follows the North American Industrial Classification System.

[2] The most detailed geographical breakout the jolts sample can provide is by region: Northeast, South, Midwest, and West.

[3] For data on employment, see “Current Employment Statistics—CES (National)” (U.S. Bureau of Labor Statistics, published monthly), https://www.bls.gov/ces.

[4] Richard L. Clayton, James R. Spletzer, and John C. Wohlford, “Conference Report: JOLTS Symposium,” *Monthly Labor Review*, February 2011, pp. 41–47, https://www.bls.gov/opub/mlr/2011/02/art4full.pdf, especially p. 44.

[5] “U.S. business cycle expansions and contractions” (National Bureau of Economic Research), https://www.nber.org/cycles.

[6] The U.S. Census Bureau defines the four regions of the United States as follows: Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; Midwest—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming. This listing applies to all tabulations that follow showing estimates for the U.S. regions.

[7] For data on unemployment, see “Labor force statistics from the Current Population Survey” (U.S. Bureau of Labor Statistics, published monthly), https://www.bls.gov/cps.

[8] See, for example, Ed Crooks, “German giant says U.S. workers lack skills,” *Europe News* (CNBC, June 20, 2011), https://www.cnbc.com/id/43459947; and Rand Ghayad and William Dickens, “It’s not a skill mismatch: disaggregate evidence on the U.S. unemployment–vacancy relationship,” *VOX*, Jan. 5, 2013, https://www.voxeu.org/article/it-s-not-skill-mismatch-disaggregate-evidence-us-unemployment-vacancy-relationship.

[9] For data on local area unemployment, see “Local Area Unemployment Statistics” (U.S. Bureau of Labor Statistics), https://www.bls.gov/lau.

[10] For a discussion of hires, separations, and their procyclicality, see Caryn N. Bruyere, Guy L. Podgornik, and James R. Spletzer, “Employment dynamics over the last decade,” *Monthly Labor Review*, August 2011, pp. 16–29, especially p. 23, https://www.bls.gov/opub/mlr/2011/08/art2full.pdf.

[11] Regis Barnichon, Michael Elsby, Bart Hobijn, and Ayşegűl Şahin, “Which industries are shifting the Beveridge curve?” *Monthly Labor Review*, June 2012, pp. 25–37, https://www.bls.gov/opub/mlr/2012/06/art2full.pdf.

[12] See “Consumer Confidence Survey®: the Conference Board Consumer Confidence Index® improves in April” (The Conference Board, Apr. 30, 2013), https://www.conference-board.org/data/consumerconfidence.cfm. The index measures consumers’ attitudes about the economy, as indicated by their levels of spending and saving.

[13] See, for example, Emily Brandon, “Planning to retire: most baby boomers plan to delay retirement,” *U.S. News*, June 30, 2010, https://money.usnews.com/money/blogs/planning-to-retire/2010/06/30/most-baby-boomers-plan-to-delay-retirement.

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