



errata

Corrections to this article were made on October 17, 2018. Specifically, table 2 was revised to remove an inadvertent row of data for the Northeast, April, 1.2 million.

Job openings reach a new high in 2017, hires and quits also increase

According to data from the U.S. Bureau of Labor Statistics Job Openings and Labor Turnover Survey, job openings and hires continued an upward trend in 2017, with the job openings level at its highest since the series began in December 2000. Similarly, annual hires and quits levels increased over multiple years and throughout 2017.

Within total separations, quits rose from 36.3 million in 2016 to 38.2 million in 2017. Layoffs and discharges increased slightly from 20.2 million in 2016 to 20.7 million in 2017. Other separations decreased from 4.4 million in 2016 to 4.2 million in 2017.

This article reviews 2017 JOLTS data at the total nonfarm level, by industry, and by region.¹ JOLTS produces monthly data on job openings, hires, quits, layoffs and discharges, and other separations from a sample of approximately 16,000 establishments. This sample comprises establishments from all 50 states, the District of Columbia, and all nonfarm industries as classified by the North American Industry Classification System (NAICS).² This sample allows publication of data by four census regions and by select two-digit NAICS codes. For definitions of JOLTs terms, see accompanying box.



Katherine Bauer bauer.katherine@bls.gov

Katherine Bauer is an economist in the Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics.

Paul R. Calhoun Jr. calhoun.paul@bls.gov

Paul R. Calhoun Jr. is a supervisory economist in the Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics.

Definitions of JOLTS terms*

Job openings

Job openings information is collected for the last business day of the reference month. A job opening requires that (1) a specific position exists and work is available for that position, (2) work could start within 30 days whether or not the employer found a suitable candidate, and (3) the employer is actively recruiting from outside the establishment to fill the position. Included are full-time, part-time, permanent, short-term, and seasonal openings. Active recruiting means that the establishment is taking steps to fill a position by advertising in newspapers or on the internet, posting help-wanted signs, accepting applications, or using other similar methods.

Jobs to be filled only by internal transfers, promotions, or recall from layoffs are excluded. Also excluded are jobs with start dates more than 30 days in the future, jobs for which employees have been hired but not yet reported for work, and jobs to be filled by employees of temporary help agencies, employee leasing companies, outside contractors, or consultants. The job openings rate is computed by dividing the number of job openings by the sum of employment and job openings and multiplying the quotient by 100.

Hires

The hires level is the total number of additions to the payroll occurring at any time during the reference month, including both new and rehired employees; full-time, part-time, permanent, short-term, and seasonal employees; employees recalled to the location after a layoff lasting more than 7 days; on-call or intermittent employees who returned to work after having been formally separated; and transfers from other locations. The hires count does not include transfers or promotions within the reporting site, employees returning after being on strike, employees of temporary help agencies or employee leasing companies, outside contractors, or consultants. The hires rate is computed by dividing the number of hires by employment and multiplying that quotient by 100.

Separations

The separations level is the total number of employment terminations occurring at any time during the reference month and is reported by type of separation: quits, layoffs and discharges, and other separations. (Some respondents are only able to report total separations.)

The quits count includes voluntary separations by employees (except for retirements, which are reported as other separations).

The layoffs and discharges count is made up of involuntary separations initiated by the employer and includes layoffs with no intent to rehire; formal layoffs lasting or expected to last more than 7 days; discharges resulting from mergers, downsizing, or closings; firings or other discharges for cause; terminations of permanent or short-term employees; and terminations of seasonal employees.

The other separations count includes retirements, transfers to other locations, deaths, and separations due to disability.

The separations count does not include transfers within the same location or employees on strike. The separations rate is computed by dividing the number of separations by employment and multiplying the resulting quotient by 100. The quits, layoffs and discharges, and other separations rates are computed similarly.

*From *Handbook of Methods*, chapter 18, "Job Openings and Labor Turnover Survey" (U.S. Bureau of Labor Statistics, June 2015), https://www.bls.gov/opub/hom/pdf/homch18.pdf.

Job openings

The job openings level is a procyclical measure of demand; job openings tend to increase during economic expansions and decrease during economic contractions.[3] More job openings indicate, generally, that employers need additional workers, a sign of a demand for labor and confidence in the economy. Job openings and employment are closely linked and tend to rise and fall together. In this context, also notable is that the number of employees on nonagricultural payrolls is considered a coincident economic indicator by the National Bureau of Economic Research.[4]

Job openings reached a monthly series high of 6.2 million in September 2017, indicating that the demand side of the labor force continued to improve. During 2017, both job openings and employment levels trended higher than in previous years. Monthly job openings rose from 5.0 million in December 2016 to 5.2 million in December 2017, a 3.5 percent increase.[5] (See table 1.) Monthly employment increased by 1.6 percent in December over the same period. (See figure 1.)

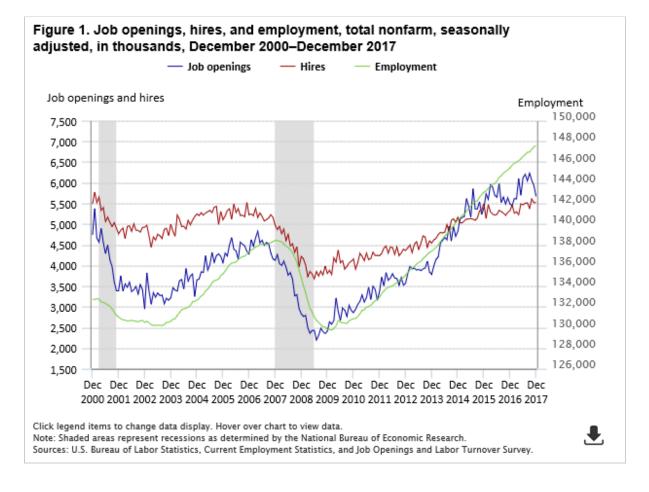
Change (Dec Change (Dec Level by month and year (in thousands) 2015-Dec 2016-Dec Industry and region 2016) 2017) December 2015 December 2016 December 2017 Level PercentLevelPercent Total nonfarm 4,972 5,044 5,222 72 1.4 178 3.5 Industry Total private 4,492 4,563 4,709 71 1.6 146 3.2 23 Mining and logging 15 20 8 53.3 -3 -13.0 Construction 12 127 139 149 9.4 10 7.2 324 374 3 0.9 Manufacturing 321 50 15.4 179 182 239 3 1.7 57 Durable goods 31.3 Nondurable goods 142 142 135 0 0.0 -7 -4.9

Table 1. Change in job openings, by industry and region, not seasonally adjusted, December 2015 toDecember 2017

Table 1. Change in job openings, by industry and region, not seasonally adjusted, December 2015 to December 2017

| Industry and region | Level by mo | Level by month and year (in thousands) | | • • | | | 5–Dec | Dec Change (Dec c 2016–Dec 2017) | | |
|--|---------------|--|---------------|----------|---------|-------|-------|--|--|--|
| | December 2015 | December 2016 | December 2017 | ' Level | Percent | Level | Perce | | | |
| Trade, transportation, and utilities | 732 | 863 | 994 | 131 | 17.9 | 131 | 15. | | | |
| Wholesale trade | 134 | 172 | 188 | 38 | 28.4 | 16 | 9 | | | |
| Retail trade | 422 | 504 | 614 | 82 | 19.4 | 110 | 21 | | | |
| Transportation, warehousing, and utilities | 176 | 187 | 192 | 11 | 6.3 | 5 | 2 | | | |
| Information | 106 | 98 | 103 | -8 | -7.5 | 5 | 5 | | | |
| Financial activities | 363 | 373 | 323 | 10 | 2.8 | -50 | -13 | | | |
| Finance and insurance | 286 | 290 | 244 | 4 | 1.4 | -46 | -15 | | | |
| Real estate and rental and leasing | 77 | 83 | 79 | 6 | 7.8 | -4 | _4 | | | |
| Professional and business services | 1,028 | 839 | 767 | _ 189 | -18.4 | -72 | -8 | | | |
| Education and health services | 1,033 | 1,116 | 1,064 | 83 | 8.0 | -52 | _4 | | | |
| Educational services | 108 | 92 | 84 | -16 | -14.8 | -8 | -6 | | | |
| Healthcare and social assistance | 926 | 1,024 | 980 | 98 | 10.6 | -44 | | | | |
| Leisure and hospitality | 573 | 547 | 719 | -26 | -4.5 | 172 | 31 | | | |
| Arts, entertainment, and recreation | 48 | 68 | 66 | 20 | 41.7 | -2 | -2 | | | |
| Accommodation and food services | 525 | 480 | 653 | -45 | -8.6 | 173 | 36 | | | |
| Other services | 194 | 240 | 196 | 46 | 23.7 | -44 | -18 | | | |
| Government | 481 | 481 | 513 | 0 | 0.0 | 32 | 6 | | | |
| Federal | 84 | 112 | 79 | 28 | 33.3 | -33 | -29 | | | |
| State and local | 396 | 369 | 434 | -27 | -6.8 | 65 | 17 | | | |
| Education | 147 | 135 | 154 | -12 | -8.2 | 19 | 14 | | | |
| Excluding education | 249 | 234 | 280 | –15 | -6.0 | 46 | 19 | | | |
| Region | | | | | | | | | | |
| Northeast | 838 | 888 | 902 | 50 | 6.0 | 14 | 1 | | | |
| South | 1,917 | 1,850 | 1,836 | -67 | -3.5 | -14 | -0 | | | |
| Midwest | 1,068 | 1,140 | 1,255 | 72 | 6.7 | 115 | 10 | | | |
| West | 1,149 | 1,166 | 1,228 | 17 | 1.5 | 62 | 5 | | | |

Source: U.S. Bureau of Labor Statistics.



Job openings by industry

Monthly job openings, not seasonally adjusted, were up over the year from December 2016 to December 2017 in nine industries. The largest over-the-year increases in job openings occurred in accommodation and food services (36.0 percent), durable goods manufacturing (31.3 percent), and retail trade (21.8 percent). Industries with the largest declines over the year included federal government (-29.5 percent), other services (-18.3 percent), and finance and insurance (-15.9 percent). (See table 1.)

During 2017, seasonally adjusted job openings in seven industries reached series highs. These industries include real estate and rental and leasing at 140,000 in January, healthcare and social assistance at 1.1 million in June, educational services at 140,000 in July, nondurable goods manufacturing at 201,000 in July, finance and insurance at 318,000 in September, retail trade at 53,000 in November, and accommodation and food services at 812,000 in December. (See table 2.)

| Industry and region data element | Industry and region | Month | Level |
|----------------------------------|------------------------------------|---------|-------------|
| Industry | | | |
| Job openings | Real estate and rental and leasing | January | 140,000 |
| Job openings | Healthcare and social assistance | June | 1.1 million |

| Industry and region data element | Industry and region | Month | Level |
|----------------------------------|-------------------------------------|-----------|------------|
| Job openings | Educational services | July | 140,00 |
| Job openings | Nondurable goods manufacturing | July | 201,00 |
| Job openings | Finance and Insurance | September | 318,00 |
| Job openings | Retail Trade | November | 53,00 |
| Job openings | Accommodation and food services | December | 812,00 |
| Hires | Mining and logging | May | 39,00 |
| Hires | Other services | October | 249,00 |
| Hires | Healthcare and social assistance | October | 593,00 |
| Hires | Professional and business services | December | 1.2 millio |
| Quits | Healthcare and social assistance | October | 403,00 |
| Quits | Professional and business services | December | 747,00 |
| Layoffs and discharges | Arts, entertainment, and recreation | July | 139,00 |
| Region | | | |
| Job openings | Northeast | July | 1.1 millio |
| Job openings | Midwest | September | 1.6 millio |
| Hires | South | October | 2.3 millio |
| Hires | Northeast | May | 960,00 |
| Quits | South | October | 1.4 millio |
| Quits | West | December | 837,00 |

Table 2. Monthly series highs, by industry and region, seasonally adjusted, 2017

Job openings by region

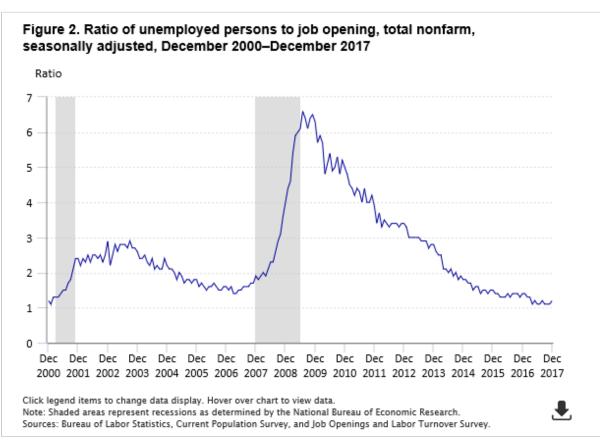
Three of the four census regions experienced upward trends in job openings from December 2016 to December 2017. The largest regional upward trend was in the Midwest, at 10.1 percent. Job openings in the West rose 5.3 percent, followed by those in the Northeast, which rose 1.6 percent. Job openings in the South were down -0.8 percent. (See table 1.)

Two regions reached series highs for seasonally adjusted job openings in 2017. In the Northeast, there were a record number of job openings at 1.1 million in July 2017. In the Midwest, job openings reached a high of 1.6 million job openings in September 2017. (See table 2.)

Job openings and unemployment

One way to analyze job openings and unemployment is to consider the ratio of unemployed persons to job opening. To calculate this ratio, divide the number of unemployed from the Current Population Survey (CPS) by the number of job openings. Job openings and unemployment levels generally move in opposite directions. That is, when the economy is strong, job openings are high and unemployment is low, causing the ratio to decrease. The situation reverses as the economy weakens—unemployment increases and job openings decrease, leading to a higher ratio. Because of this countercyclical behavior, the ratio of the number of unemployed persons to job opening provides a metric that helps describe the state of the economy.[6]

When the most recent recession began in December 2007, the number of unemployed persons to job opening was 1.9.[7] The ratio peaked at 6.6 unemployed persons to job opening in July 2009, the month after the recession ended. In 2017, the ratio of unemployed persons to job opening ranged from a high of 1.4 to a low of 1.1. (See figure 2.)



Hires

Like job openings, the data element hires is a procyclical measure. The hires level has increased each year since the end of the recession (2009). The total annual hires rose for 8 consecutive years, increasing 3.2 percent from 62.0 million in 2015 to 65.3 million in 2017. In comparison, annual hires increased a more moderate 2.0 percent in 2016. (See table 3.) The 2017 monthly level for hires climbed to 5.6 million in October 2017, the highest since March 2001.

Table 3. Change in level and percentage of annual hires, by industry and region, not seasonally adjusted,2015–17

| Industry and region | | Level by year (in thousands) | | | e (2015– 6) | Change (2016– 17) | |
|---------------------|--------|------------------------------|--------|-------|----------------|----------------------|---------|
| | 2015 | 2016 | 2017 | Level | Percent | Level | Percent |
| Total | 62,027 | 63,240 | 65,259 | 1,213 | 2.0 | 2,019 | 3.2 |

Table 3. Change in level and percentage of annual hires, by industry and region, not seasonally adjusted,2015–17

| Industry and region | Level by year (in thousands) | | | Change (2015– 16) | | Change (2016– 17) | |
|--|------------------------------|--------|--------|----------------------|---------|----------------------|---------|
| | 2015 | 2016 | 2017 | Level | Percent | Level | Percent |
| Industry | II | | | | | | |
| Total private | 57,899 | 58,936 | 61,122 | 1,037 | 1.8 | 2,186 | 3.7 |
| Mining and logging | 300 | 290 | 377 | -10 | -3.3 | 87 | 30.0 |
| Construction | 3,931 | 4,041 | 4,438 | 110 | 2.8 | 397 | 9.8 |
| Manufacturing | 3,212 | 3,346 | 3,960 | 134 | 4.2 | 614 | 18.4 |
| Durable goods | 1,876 | 1,925 | 2,217 | 49 | 2.6 | 292 | 15.2 |
| Nondurable goods | 1,336 | 1,420 | 1,740 | 84 | 6.3 | 320 | 22.5 |
| Trade, transportation, and utilities | 13,005 | 12,744 | 12,587 | -261 | -2.0 | -157 | -1.2 |
| Wholesale trade | 1,662 | 1,660 | 1,677 | -2 | -0.1 | 17 | 1.0 |
| Retail trade | 9,015 | 8,677 | 8,424 | -338 | -3.7 | -253 | -2.9 |
| Transportation, warehousing, and utilities | 2,329 | 2,408 | 2,484 | 79 | 3.4 | 76 | 3.2 |
| Information | 954 | 961 | 943 | 7 | 0.7 | –18 | -1.9 |
| Financial activities | 2,366 | 2,350 | 2,481 | -16 | -0.7 | 131 | 5.0 |
| Finance and insurance | 1,588 | 1,549 | 1,622 | -39 | -2.5 | 73 | 4.7 |
| Real estate and rental and leasing | 776 | 798 | 856 | 22 | 2.8 | 58 | 7.3 |
| Professional and business services | 12,593 | 13,136 | 13,542 | 543 | 4.3 | 406 | 3.1 |
| Education and health services | 7,425 | 7,674 | 7,968 | 249 | 3.4 | 294 | 3.8 |
| Educational services | 1,058 | 1,111 | 1,106 | 53 | 5.0 | -5 | -0.5 |
| Healthcare and social assistance | 6,368 | 6,560 | 6,861 | 192 | 3.0 | 301 | 4.6 |
| Leisure and hospitality | 11,623 | 12,154 | 12,188 | 531 | 4.6 | 34 | 0.3 |
| Arts, entertainment, and recreation | 1,813 | 1,910 | 1,959 | 97 | 5.4 | 49 | 2.6 |
| Accommodation and food services | 9,810 | 10,245 | 10,228 | 435 | 4.4 | -17 | -0.2 |
| Other services | 2,489 | 2,243 | 2,643 | -246 | -9.9 | 400 | 17.8 |
| Government | 4,130 | 4,303 | 4,138 | 173 | 4.2 | -165 | -3.8 |
| Federal | 491 | 487 | 456 | -4 | -0.8 | -31 | -6.4 |
| State and local | 3,640 | 3,818 | 3,682 | 178 | 4.9 | -136 | -3.0 |
| Education | 1,809 | 1,867 | 1,798 | 58 | 3.2 | -69 | -3. |
| Excluding education | 1,834 | 1,947 | 1,883 | 113 | 6.2 | -64 | -3.3 |
| Region | | | | | | | |
| Northeast | 9,747 | 10,030 | 10,406 | 283 | 2.9 | 376 | 3. |
| South | 24,324 | 24,317 | 25,885 | -7 | 0.0 | 1,568 | 6.4 |
| Midwest | 13,846 | 14,187 | 14,308 | 341 | 2.5 | 121 | 0.9 |
| West | 14,110 | 14,701 | 14,663 | 591 | 4.2 | -38 | -0.3 |

Note: Details may not sum to totals because of rounding.

Source: U.S. Bureau of Labor Statistics.

Hires by industry

Within all industries, annual hires rose in 12 out of 19 industries in 2017, fell in 5 industries, and remained relatively unchanged in the remaining 2 industries. The largest percent increases in annual hires levels in 2017 were in mining and logging (30.0 percent), nondurable goods manufacturing (22.5 percent), and other services (17.8 percent). The largest percentage declines in hires occurred in federal government (-6.4 percent), state and local

government education (-3.7 percent), and state and local government, excluding education (-3.3 percent). (See table 3.)

Five industries had annual series highs for hires in 2017. These industries include transportation warehousing and utilities; professional and business services; healthcare and social assistance; arts, entertainment, and recreation; and other services. (See table 3.)

In four industries during 2017, monthly seasonally adjusted hires reached series highs. These industries are mining and logging at 39,000 in May 2017, both other services at 249,000 and healthcare and social assistance at 593,000 in October 2017, and professional and business services at 1.2 million in December 2017. (See table 2.)

Hires by region

Annual hires in the South region experienced the highest increase in annual hires in 2017, rising 6.4 percent (not seasonally adjusted). Annual hires also increased in the Northeast (3.7 percent) and Midwest (0.9 percent). The West region experienced the only drop in annual hires (-0.3 percent). (See table 3.)

In October 2017, the South experienced a high of 2.3 million hires based on a monthly seasonally adjusted rate. The Northeast experienced a series high for hires in May 2017 at 960,000. No other regions experienced monthly series highs for hires in 2017. (See table 2.)

Hires and job openings

The monthly number of total nonfarm hires has exceeded job openings for most of the JOLTS series history because hires is a full-month (or flow) measure and job openings is a 1-day snapshot (or stock) measure. However, following steady growth after the end of the most recent recession, job openings started to increase rapidly in early 2014. Postrecession, hires also increased but at a slower pace than job openings. Job openings exceeding hires may suggest that employers have unmet demand for workers. Except for January, job openings exceeded hires for every month in 2017. In January, hires exceeded job openings by only 16,000. (See figure 1.)

Total separations

The annual number of total separations, also referred to as turnover, increased 3.5 percent from 2016 to 2017, rising from 60.9 million to 63.0 million. (See table 4.) The level of total separations has risen annually for 7 consecutive years.

Table 4. Change in in level and percentage of annual total separations, by industry and region, not seasonally adjusted, 2015–17

| Industry and region | | Level by y | /ear (in th | ousands) | - | e (2015– 6) | Change (2016– 17) | |
|---------------------|--|------------|-------------|----------|-------|----------------|----------------------|---------|
| | | 2015 | 2016 | 2017 | Level | Percent | Level | Percent |
| Total | | 59,296 | 60,896 | 63,031 | 1,600 | 2.7 | 2,135 | 3.5 |
| Industry | | | | | | | | |
| Total private | | 55,348 | 56,789 | 58,949 | 1,441 | 2.6 | 2,160 | 3.8 |

Table 4. Change in in level and percentage of annual total separations, by industry and region, not seasonally adjusted, 2015–17

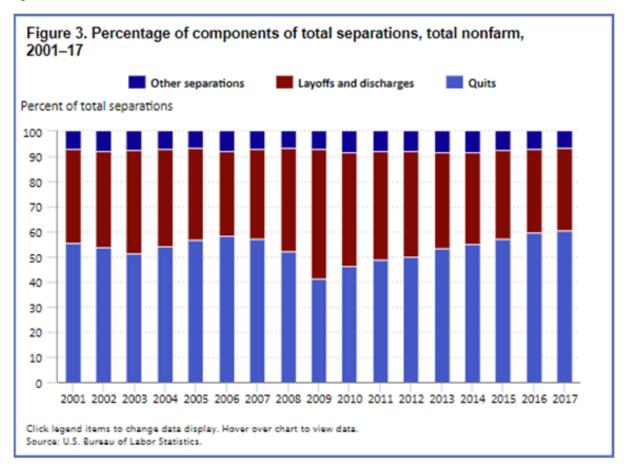
| Industry and region | Level by y | Level by year (in thousands) | | | e (2015– 6) | Change (2016– 17) | |
|--|------------|------------------------------|--------|-------|----------------|----------------------|--------|
| | 2015 | 2016 | 2017 | Level | Percent | Level | Percen |
| Mining and logging | 452 | 391 | 324 | -61 | -13.5 | -67 | -17. |
| Construction | 3,593 | 3,900 | 4,180 | 307 | 8.5 | 280 | 7. |
| Manufacturing | 3,148 | 3,360 | 3,782 | 212 | 6.7 | 422 | 12 |
| Durable goods | 1,878 | 1,984 | 2,106 | 106 | 5.6 | 122 | 6. |
| Nondurable goods | 1,268 | 1,376 | 1,677 | 108 | 8.5 | 301 | 21. |
| Trade, transportation, and utilities | 12,599 | 12,322 | 12,372 | -277 | -2.2 | 50 | 0. |
| Wholesale trade | 1,646 | 1,631 | 1,612 | -15 | -0.9 | -19 | -1. |
| Retail trade | 8,833 | 8,477 | 8,413 | -356 | -4.0 | -64 | -0 |
| Transportation, warehousing, and utilities | 2,120 | 2,215 | 2,347 | 95 | 4.5 | 132 | 6 |
| Information | 925 | 914 | 979 | -11 | -1.2 | 65 | 7. |
| Financial activities | 2,218 | 2,165 | 2,328 | -53 | -2.4 | 163 | 7. |
| Finance and insurance | 1,479 | 1,422 | 1,532 | -57 | -3.9 | 110 | 7 |
| Real estate and rental and leasing | 739 | 745 | 798 | 6 | 0.8 | 53 | 7 |
| Professional and business services | 12,080 | 12,810 | 13,121 | 730 | 6.0 | 311 | 2 |
| Education and health services | 6,791 | 7,082 | 7,481 | 291 | 4.3 | 399 | 5 |
| Educational services | 981 | 1,018 | 1,007 | 37 | 3.8 | -11 | -1 |
| Healthcare and social assistance | 5,811 | 6,062 | 6,474 | 251 | 4.3 | 412 | 6 |
| Leisure and hospitality | 11,102 | 11,670 | 11,852 | 568 | 5.1 | 182 | 1 |
| Arts, entertainment, and recreation | 1,723 | 1,804 | 1,905 | 81 | 4.7 | 101 | 5 |
| Accommodation and food services | 9,381 | 9,863 | 9,946 | 482 | 5.1 | 83 | 0 |
| Other services | 2,435 | 2,176 | 2,529 | -259 | -10.6 | 353 | 16 |
| Government | 3,947 | 4,109 | 4,082 | 162 | 4.1 | -27 | -0 |
| Federal | 454 | 458 | 468 | 4 | 0.9 | 10 | 2 |
| State and local | 3,492 | 3,651 | 3,612 | 159 | 4.6 | -39 | -1 |
| Education | 1,723 | 1,782 | 1,735 | 59 | 3.4 | -47 | -2 |
| Excluding education | 1,769 | 1,868 | 1,879 | 99 | 5.6 | 11 | 0 |
| Region | | | | | | | |
| Northeast | 9,324 | 9,661 | 10,056 | 337 | 3.6 | 395 | 4 |
| South | 23,416 | 23,540 | 24,995 | 124 | 0.5 | 1,455 | 6 |
| Midwest | 12,922 | 13,507 | 13,755 | 585 | 4.5 | 248 | 1 |
| West | 13,633 | 14,186 | 14,226 | 553 | 4.1 | 40 | 0 |

"Note: Details may not sum to totals because of rounding.

Source: U.S. Bureau of Labor Statistics."

Total separations comprise quits, layoffs and discharges, and other separations. Each of these data elements has its own unique trend and cyclical movements. Quits are procyclical, meaning they typically rise when the economy expands and fall when the economy contracts. Layoffs and discharges are countercyclical, which means that they typically rise during economic contractions and fall during economic expansions. The other separations data element remains relatively constant over time. Figure 3 shows this relationship by displaying the percentage of total separations attributed to each type of separation. The percentage of quits to total separations has been

increasing since 2009, while the percentage of layoffs and discharges within total separations has been decreasing since 2009.



Annual quits rose slightly over the year from 36.3 million in 2016 to 38.2 million in 2017. (See table 5.) The annual quits level has risen for 8 consecutive years. In December 2017, the monthly seasonally adjusted quits level was 3.3 million, the highest since January 2001.

| Table 5. Change in level and percentage of annual quits, by industry and region, not seasonally adjusted, | |
|---|--|
| 2015–17 | |

| Industry and region | | Level (in thousands) | | | e (2015– 6) | Change (2016– 17) | | |
|---------------------|--------|----------------------|--------|-------|----------------|----------------------|---------|--|
| | 2015 | 2016 | 2017 | Level | Percent | Level | Percent | |
| Total | 33,732 | 36,339 | 38,180 | 2,607 | 7.7 | 1,841 | 5.1 | |
| Industry | | | | | | | | |
| Total private | 31,847 | 34,293 | 36,145 | 2,446 | 7.7 | 1,852 | 5.4 | |
| Mining and logging | 177 | 162 | 176 | -15 | -8.5 | 14 | 8.6 | |
| Construction | 1,366 | 1,495 | 1,821 | 129 | 9.4 | 326 | 21.8 | |
| Manufacturing | 1,637 | 1,792 | 2,296 | 155 | 9.5 | 504 | 28.1 | |
| Durable goods | 936 | 1,004 | 1,260 | 68 | 7.3 | 256 | 25.5 | |
| Nondurable goods | 700 | 789 | 1,037 | 89 | 12.7 | 248 | 31.4 | |

Table 5. Change in level and percentage of annual quits, by industry and region, not seasonally adjusted,2015–17

| Industry and region | Level (in thousands) | | | Change (2015– 16) | | Change (2016- 17) | |
|--|----------------------|--------|--------|----------------------|---------|----------------------|---------|
| | 2015 | 2016 | 2017 | Level | Percent | Level | Percent |
| Trade, transportation, and utilities | 7,534 | 7,737 | 7,890 | 203 | 2.7 | 153 | 2.0 |
| Wholesale trade | 934 | 1,009 | 1,031 | 75 | 8.0 | 22 | 2.2 |
| Retail trade | 5,485 | 5,575 | 5,617 | 90 | 1.6 | 42 | 0.8 |
| Transportation, warehousing, and utilities | 1,114 | 1,156 | 1,242 | 42 | 3.8 | 86 | 7.4 |
| Information | 503 | 487 | 534 | –16 | -3.2 | 47 | 9.7 |
| Financial activities | 1,211 | 1,209 | 1,370 | -2 | -0.2 | 161 | 13.3 |
| Finance and insurance | 817 | 804 | 916 | -13 | -1.6 | 112 | 13.9 |
| Real estate and rental and leasing | 393 | 406 | 458 | 13 | 3.3 | 52 | 12.8 |
| Professional and business services | 6,280 | 7,330 | 7,710 | 1,050 | 16.7 | 380 | 5.2 |
| Education and health services | 4,510 | 4,704 | 4,983 | 194 | 4.3 | 279 | 5.9 |
| Educational services | 529 | 562 | 557 | 33 | 6.2 | -5 | -0.9 |
| Healthcare and social assistance | 3,981 | 4,142 | 4,426 | 161 | 4.0 | 284 | 6.9 |
| Leisure and hospitality | 7,276 | 8,084 | 7,933 | 808 | 11.1 | -151 | -1.9 |
| Arts, entertainment, and recreation | 658 | 853 | 781 | 195 | 29.6 | -72 | -8.4 |
| Accommodation and foodservices | 6,615 | 7,232 | 7,155 | 617 | 9.3 | -77 | -1.1 |
| Other services | 1,351 | 1,295 | 1,429 | -56 | -4.1 | 134 | 10.3 |
| Government | 1,883 | 2,047 | 2,034 | 164 | 8.7 | –13 | -0.6 |
| Federal | 150 | 162 | 189 | 12 | 8.0 | 27 | 16.7 |
| State and local | 1,730 | 1,884 | 1,845 | 154 | 8.9 | -39 | -2.1 |
| Education | 867 | 915 | 908 | 48 | 5.5 | -7 | -0.8 |
| Excluding education | 863 | 967 | 939 | 104 | 12.1 | -28 | -2.9 |
| Region | | | | | | | |
| Northeast | 4,752 | 5,005 | 5,310 | 253 | 5.3 | 305 | 6.1 |
| South | 13,994 | 14,630 | 15,587 | 636 | 4.5 | 957 | 6.5 |
| Midwest | 7,423 | 8,080 | 8,282 | 657 | 8.9 | 202 | 2.5 |
| West | 7,564 | 8,626 | 8,997 | 1,062 | 14.0 | 371 | 4.3 |

Annual layoffs and discharges increased slightly from 20.2 million in 2016 to 20.7 million in 2017. (See table 6.) Annual other separations declined from 4.4 million in 2016 to 4.2 million in 2017. (See table 7.)

Table 6. Change in level and percentage of annual layoffs and discharges, by industry and region, notseasonally adjusted, 2015–17

| vel Perce | ent Level | Percent |
|-----------|-----------|---------------|
| -811 -3 | .9 524 | 2.6 |
| | | |
| -843 -4 | .3 529 | 2.8 |
|) | -811 -3 | -811 -3.9 524 |

Table 6. Change in level and percentage of annual layoffs and discharges, by industry and region, not seasonally adjusted, 2015–17

| | Level | (in thous | ands) | Change (20 | 15–16) | Change (2016–17) | |
|--|-------|-----------|-------|------------|---------|------------------|---------|
| Industry and region | 2015 | 2016 | 2017 | Level | Percent | Level | Percent |
| Mining and logging | 241 | 175 | 119 | -66 | -27.4 | -56 | -32.0 |
| Construction | 2,077 | 2,221 | 2,180 | -843 | -4.3 | 529 | 2.8 |
| Manufacturing | 1,234 | 1,281 | 1,223 | -66 | -27.4 | -56 | -32.0 |
| Durable goods | 768 | 799 | 694 | 144 | 6.9 | -41 | -1.8 |
| Nondurable goods | 463 | 483 | 529 | 47 | 3.8 | -58 | -4.5 |
| Trade, transportation, and utilities | 3,836 | 3,468 | 3,565 | 31 | 4.0 | -105 | -13.1 |
| Wholesale trade | 583 | 488 | 462 | 20 | 4.3 | 46 | 9.5 |
| Retail trade | 2,438 | 2,128 | 2,160 | -368 | -9.6 | 97 | 2.8 |
| Transportation, warehousing, and utilities | 813 | 855 | 942 | -95 | -16.3 | -26 | -5.3 |
| Information | 305 | 295 | 339 | -310 | -12.7 | 32 | 1.5 |
| Financial activities | 700 | 663 | 655 | 42 | 5.2 | 87 | 10.2 |
| Finance and insurance | 416 | 378 | 363 | -10 | -3.3 | 44 | 14.9 |
| Real estate and rental and leasing | 284 | 284 | 291 | -37 | -5.3 | -8 | -1.2 |
| Professional and business services | 5,069 | 4,838 | 4,770 | -38 | -9.1 | –15 | -4.0 |
| Education and health services | 1,733 | 1,918 | 1,940 | 0 | 0.0 | 7 | 2.5 |
| Educational services | 380 | 390 | 385 | -231 | -4.6 | -68 | -1.4 |
| Healthcare and social assistance | 1,354 | 1,527 | 1,556 | 185 | 10.7 | 22 | 1.1 |
| Leisure and hospitality | 3,511 | 3,179 | 3,572 | 10 | 2.6 | -5 | -1.3 |
| Arts, entertainment, and recreation | 1,019 | 918 | 1,085 | 173 | 12.8 | 29 | 1.9 |
| Accommodation and foodservices | 2,492 | 2,262 | 2,488 | -332 | -9.5 | 393 | 12.4 |
| Other services | 960 | 790 | 987 | -101 | -9.9 | 167 | 18.2 |
| Government | 1,297 | 1,330 | 1,324 | -230 | -9.2 | 226 | 10.0 |
| Federal | 163 | 157 | 157 | -170 | -17.7 | 197 | 24.9 |
| State and local | 1,134 | 1,173 | 1,169 | 33 | 2.5 | 6 | -0.5 |
| Education | 559 | 581 | 536 | -6 | -3.7 | 0 | 0.0 |
| Excluding education | 577 | 590 | 633 | 39 | 3.4 | -4 | -0.3 |
| Region | | | | | 1 | | |
| Northeast | 3,662 | 3,902 | 3,976 | 22 | 3.9 | -45 | -7.7 |
| South | 7,616 | 7,171 | 7,876 | 13 | 2.3 | 43 | 7.3 |
| Midwest | 4,619 | 4,516 | 4,604 | 240 | 6.6 | 74 | 1.9 |
| West | 5,063 | 4,564 | 4,222 | -445 | -5.8 | 705 | 9.8 |

Note: Details may not sum to totals because of rounding.

Source: U.S. Bureau of Labor Statistics.

Table 7. Change in level and percentage of annual other separations, by industry and region, not seasonally adjusted, 2015–17

| Inductory and region | Level (in thousands) | | | Change (2015–16) | | Change (2016–17) | | |
|----------------------|----------------------|-------|-------|------------------|-------|------------------|-------|---------|
| Industry and region | | 2015 | 2016 | 2017 | Level | Percent | Level | Percent |
| Total | | 4,604 | 4,405 | 4,175 | –199 | -4.3 | -230 | -5.2 |
| Industry | | | | | | | | |

Table 7. Change in level and percentage of annual other separations, by industry and region, not seasonally adjusted, 2015–17

| | Level | Level (in thousands) | | |)15–16) | Change (2016–17) | |
|--|-------|----------------------|-------|-------|---------|------------------|---------|
| Industry and region | 2015 | 2016 | 2017 | Level | Percent | Level | Percent |
| Total private | 3,836 | 3,673 | 3,453 | -163 | -4.2 | -220 | -6.0 |
| Mining and logging | 34 | 56 | 30 | 22 | 64.7 | -26 | -46.4 |
| Construction | 150 | 184 | 175 | 34 | 22.7 | -9 | -4.9 |
| Manufacturing | 278 | 287 | 264 | 9 | 3.2 | -23 | -8.0 |
| Durable goods | 174 | 180 | 153 | 6 | 3.4 | -27 | -15.0 |
| Nondurable goods | 104 | 108 | 112 | 4 | 3.8 | 4 | 3.7 |
| Trade, transportation, and utilities | 1,229 | 1,117 | 919 | -112 | -9.1 | -198 | -17.7 |
| Wholesale trade | 129 | 137 | 118 | 8 | 6.2 | –19 | -13.9 |
| Retail trade | 910 | 773 | 633 | –137 | -15.1 | -140 | -18.1 |
| Transportation, warehousing, and utilities | 188 | 206 | 166 | 18 | 9.6 | -40 | -19.4 |
| Information | 119 | 133 | 107 | 14 | 11.8 | -26 | -19.5 |
| Financial activities | 309 | 292 | 302 | –17 | -5.5 | 10 | 3.4 |
| Finance and insurance | 245 | 239 | 251 | -6 | -2.4 | 12 | 5.0 |
| Real estate and rental and leasing | 62 | 53 | 48 | -9 | -14.5 | -5 | -9.4 |
| Professional and business services | 729 | 643 | 639 | -86 | -11.8 | -4 | -0.6 |
| Education and health services | 548 | 459 | 557 | -89 | -16.2 | 98 | 21.4 |
| Educational services | 70 | 64 | 63 | -6 | -8.6 | _1 | -1.6 |
| Healthcare and social assistance | 477 | 396 | 494 | 81 | -17.0 | 98 | 24.7 |
| Leisure and hospitality | 317 | 407 | 349 | 90 | 28.4 | -58 | -14.3 |
| Arts, entertainment, and recreation | 45 | 36 | 43 | -9 | -20.0 | 7 | 19.4 |
| Accommodation and food services | 272 | 373 | 305 | 101 | 37.1 | -68 | -18.2 |
| Other services | 124 | 89 | 114 | -35 | -28.2 | 25 | 28.1 |
| Government | 767 | 734 | 722 | -33 | -4.3 | -12 | -1.6 |
| Federal | 143 | 138 | 123 | -5 | -3.5 | –15 | -10.9 |
| State and local | 626 | 594 | 599 | -32 | -5.1 | 5 | 0.8 |
| Education | 296 | 285 | 292 | -11 | -3.7 | 7 | 2.5 |
| Excluding education | 331 | 308 | 305 | -23 | -6.9 | -3 | -1.0 |
| egion | | | | | | | |
| Northeast | 911 | 755 | 768 | -156 | -17.1 | 13 | 1.7 |
| South | 1,808 | 1,743 | 1,535 | -65 | -3.6 | -208 | -11.9 |
| Midwest | 880 | 909 | 867 | 29 | 3.3 | -42 | -4.6 |
| West | 1,008 | 996 | 1,007 | –12 | -1.2 | 11 | 1.1 |

Note: Details may not sum to totals because of rounding.

Source: U.S. Bureau of Labor Statistics.

Components of separations by industry

Quits

In 2017, the number of annual quits grew in 14 out of 19 industries, while 5 industries had fewer quits. The largest increases in annual quits levels in 2017 were in nondurable goods manufacturing (31.4 percent), durable goods manufacturing (25.5 percent), and construction (21.8 percent). The largest declines in annual quits were in arts, entertainment, and recreation (-8.4 percent); state and local government, excluding education (-2.9 percent); and

accommodation and food services (-1.1 percent). Three industries reached a series high for the annual level of quits: transportation, warehousing, and utilities at 1.2 million; professional and business services at 7.7 million; and healthcare and social assistance at 4.4 million. (See table 5.)

Two industries reached monthly seasonally adjusted series highs for quits in 2017. These industries include healthcare and social assistance at 403,000 in October 2017 and professional and business services at 747,000 in December 2017. (See table 2.)

Layoffs and discharges

Annual layoffs and discharges dropped from 2016 to 2017 in 8 out of 19 industries, while 10 industries had higher layoffs and discharges and 1 remained unchanged. The largest declines in annual layoffs and discharges levels were in mining and logging (-32.0 percent); transportation, warehousing, and utilities (-5.3 percent); and nondurable goods manufacturing (-4.0 percent). The largest increases in annual layoffs and discharges were in federal government (24.9 percent), other services (18.2 percent), and finance and insurance (14.9 percent).

One industry reached a series low annual layoffs and discharges level—wholesale trade (462,000), and one industry reached a series high annual layoffs and discharges level—arts, entertainment, and recreation (1.1 million). (See table 6.) The only industry to reach a series high for the seasonally adjusted monthly layoffs and discharges level was arts, entertainment, and recreation at 139,000 in July 2017. (See table 2.)

Other separations

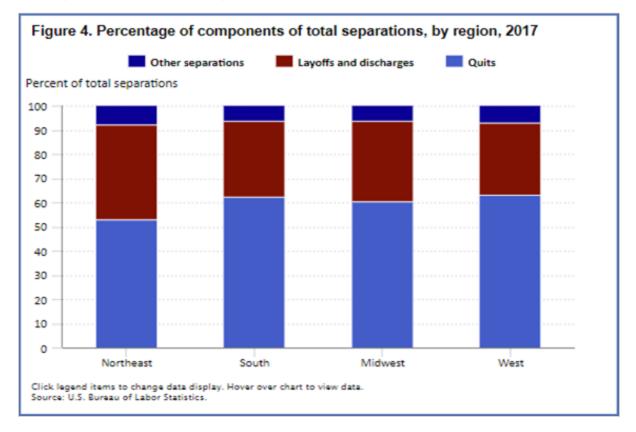
From 2016 to 2017, annual other separations increased in 6 out of 19 industries, whereas 13 industries had fewer annual other separations. The largest percent increases in annual other separations were in other services (28.1 percent), healthcare and social assistance (24.7 percent), and arts, entertainment, and recreation (19.4 percent). The largest percentage declines in annual other separations were in mining and logging (-46.4 percent), information (-19.5 percent), and transportation, warehousing, and utilities (-19.4 percent). (See table 7.) Other separations for durable goods manufacturing dropped to an annual series low of 153,000 and real estate and rental and leasing dropped to an annual series low of 48,000. (See table 7.)

Components of separations by region

In 2017, the Northeast region had an annual level of 10.1 million total separations. Within total separations, the Northeast experienced 5.3 million quits, 4.0 million layoffs and discharges, and 768,000 other separations. In the South region, the annual level of total separations for 2017 was 25.0 million. Within total separations in the South region, the quits level was 15.6 million, the layoffs and discharges level was 7.9 million, and other separations level was 1.5 million. In the Midwest region, in 2017, the annual total separations level was 13.8 million. Within total separations in the Midwest, there were 8.3 million quits, 4.6 million layoffs and discharges, and 867,000 other separations. In 2017, the West region annual total separations level was 14.2 million. Within total separations in the West region, the quits level was 9.0 million, the layoffs and discharges level was 4.2 million, and the other separations level was 1.0 million. (See tables 4–7.)

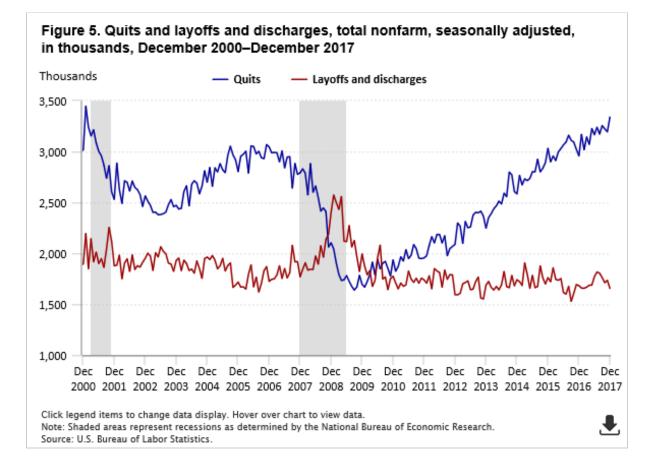
Only two regions experienced monthly series highs, both in quits. The South monthly quits reached a series high of 1.4 million in October 2017. For the West, monthly quits reached a series high of 837,000 in December 2017.

This component analysis illustrates the different characteristics of the JOLTS data at the regional level. The Northeast region experienced the smallest percentage, at 52.8 percent in 2017, of quits within total separations. The West region experienced the highest percentage, at 63.2 percent, of quits to total separations. In 2017, the Northeast region had the largest percentage, at 39.5 percent, of layoffs and discharges within total separations. The West region had the lowest percentage of layoffs and discharges, at 29.7 percent. The Northeast had the highest percentage, at 7.6 percent, of other separations within total separations, whereas the South region had the lowest percentage, at 6.1 percent. (See figure 4.)



Quits compared with layoffs and discharges

From 2009 to 2010, near the end of the most recent recession, layoffs and discharges exceeded quits in most months. However, excluding this timeframe, quits exceeded layoffs and discharges. In 2017, quits continued to exceed layoffs and discharges. As figure 5 illustrates, these two data elements have an inverse relationship.



Summary

JOLTS annual data show a continuing upward trend in the labor market throughout 2017. The Job openings level reached its highest point since the series began, indicating an increasing demand for labor. Annual hires and quits levels trended up multiple years in a row and throughout 2017. JOLTS data describe rising levels of hires and quits throughout the economy in 2017.

SUGGESTED CITATION

Katherine Bauer and Paul R. Calhoun Jr., "Job openings reach a new high in 2017, hires and quits also increase," *Monthly Labor Review*, U.S. Bureau of Labor Statistics, October 2018, https://doi.org/10.21916/mlr.2018.23

NOTES

<u>1</u> The most detailed geographical breakout that the JOLTS sample can provide by region is the Northeast, the South, the Midwest, and the West.

2 When collecting, analyzing, and publishing statistical data related to the U.S. business economy, federal statistical agencies use the North American Industry Classification System (NAICS) as the standard to classify business establishments. For more information, see "North American Industry Classification System: Introduction to NAICS" (U.S. Census Bureau), <u>https://www.census.gov/eos/www/</u>naics/. Out-of-scope NAICS industries are agricultural establishments (NAICS 11), except logging (NAICS 1133), and private households (NAICS 814110). See *Handbook of Methods*, chapter 18, "Job Openings and Labor Turnover Survey" (U.S. Bureau of Labor Statistics, June 2015), <u>https://www.bls.gov/opub/hom/pdf/homch18.pdf</u>.

<u>3</u> Procyclical is a condition of positive correlation between the value of a good, a service, or an economic indicator and the overall state of the economy. In other words, the value of the good, service, or indicator tends to move in the same direction as the economy, growing when the economy grows and declining when the economy declines." For more information, see "Procyclic," Investopedia, LLC, at http://www.investopedia.com/terms/p/procyclical.asp.

<u>4</u> For more information concerning principal federal economic indicators, see "U.S. business cycle expansions and contractions" (Cambridge, MA: National Bureau of Economic Research, September 20, 2010), <u>http://www.nber.org/cycles/</u>.

5 The JOLTS program considers job openings a stock measure and does not produce job openings annual totals.

<u>6</u> Countercyclical is a condition of negative correlation between when the value of the good, service, or indicator "moving in the opposite direction of the overall economic cycle: rising when the economy is weakening, and falling when the economy is strengthening."

<u>7</u> "U.S. business cycle expansions and contractions" (Cambridge, MA: National Bureau of Economic Research, September 20, 2010), http://www.nber.org/cycles/.

RELATED CONTENT

Related Articles

Job openings, hires, and separations rise, but at a slower pace, in 2016, Monthly Labor Review, August 2017.

Employed workers leaving the labor force: an analysis of recent trends, Monthly Labor Review, May 2017.

Employment expansion continues but at a slower pace, Monthly Labor Review, April 2017.

Unemployment holds steady for much of 2016 but edges down in the fourth quarter, Monthly Labor Review, March 2017.

Job openings, hires, and separations return to prerecession levels in 2015, Monthly Labor Review, September 2016.

Job openings reach a new high, hires and quits also increase, Monthly Labor Review, June 2015.

Related Subjects

Labor dynamics Labor force Separations Unemployment Employment Layoffs Jobseekers