BEYOND THE NUMBERS

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Job openings and labor turnover trends for Southern states in 2018

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The South is known for its culture, geographic variety, and size, but what are some of the labor market trends that set this geographical region apart? The U.S. Bureau of Labor Statistics (BLS) Job Openings and Labor Turnover Survey (JOLTS) program publishes estimates on job openings, hires, and separations. JOLTS estimates provide insights into labor market dynamics, such as labor demand and labor turnover, that other employment measures cannot.

In 2019, the JOLTS program published JOLTS experimental state estimates for the first time.[1] The JOLTS experimental state estimates offer valuable information that can help us better understand state-level economies and allow for comparisons between states, regions, and the nation.

In this **Beyond the Numbers** article, we use the experimental JOLTS estimates on states in the South region to explore trends in a number of measures: job openings, hires, separations (including quits, layoffs, and discharges), labor churn, fill rates, and unemployment. These trends provide a deeper understanding of business cycles and labor demand in the South. This information can help businesses, workers, and others make better informed decisions about employment in their regions and states.

Unique labor patterns in the South region

Each state in the United States has its own unique labor force patterns because of its distinct combination of geography, climate, major industries, labor force demographics, and more. Although neighboring states may have different labor patterns, states in the same geographic region often share many traits. For this discussion, we use the U.S. Census Bureau's classification of the South region: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.[2]

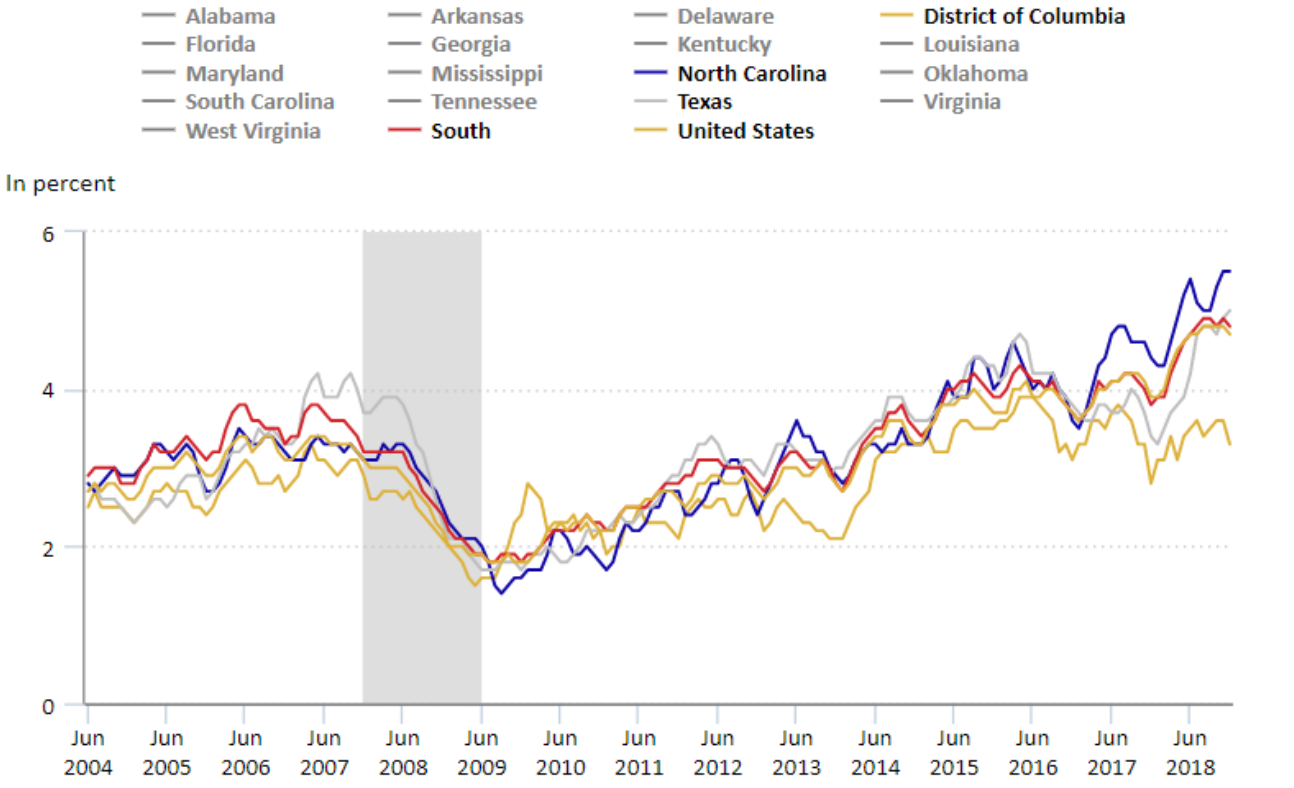
Of the four census regions, the South has the largest labor force, which is dispersed along a diverse landscape.[3] As of December 2018, trade, transportation, and utilities was the top-employing industrial sector in 9 of the 16 Southern states and the District of Columbia. In addition, government was the largest employer in five states and the District of Columbia in the South region.[4] For context, out of the remaining 33 states, only 4 states had government as the top employer in 2018.

Although the South has a distinctly industrial labor market and a concentration of the labor force, states within the region have large variations in population and employment, resulting in differing labor market patterns between states. For instance, in 2018, Texas's annual average employment level was nearly 30 times that of Delaware.[5] The differences in climate and geography among the Southern states result in some states experiencing more seasonal employment fluctuations than others. These differences are reflected in the JOLTS experimental state estimates.

Trends in job openings

The JOLTS program defines job openings as all positions that are open on the last business day of the month. Job openings measure unmet labor demand in the labor market. Chart 1 shows job-openings rates in the United States, the South region, and in each Southern state. With the exceptions of the District of Columbia, Kentucky, Louisiana, and Virginia, all states in the South region experienced series-high job openings rates in 2018. A difference in job openings rates and trends can be seen between the District of Columbia and North Carolina.[6] In December 2018, the District of Columbia had the lowest job-openings rate in the South at 3.3 percent, while North Carolina had the highest job-openings rate at 5.5 percent. The District of Columbia generally trended below the South job-openings rate while North Carolina generally trended above it. The state of Texas showed the largest over-the-year gain in job openings in the South at 1.6 percent, increasing from 3.4 percent in December 2017 to 5.0 percent in December 2018. From 2016 through 2018, job-openings rates in the South region and the United States followed a similar trend.

Chart 1. Job-openings rates in the United States, South region, and select Southern states, June 2004–December 2018, not seasonally adjusted

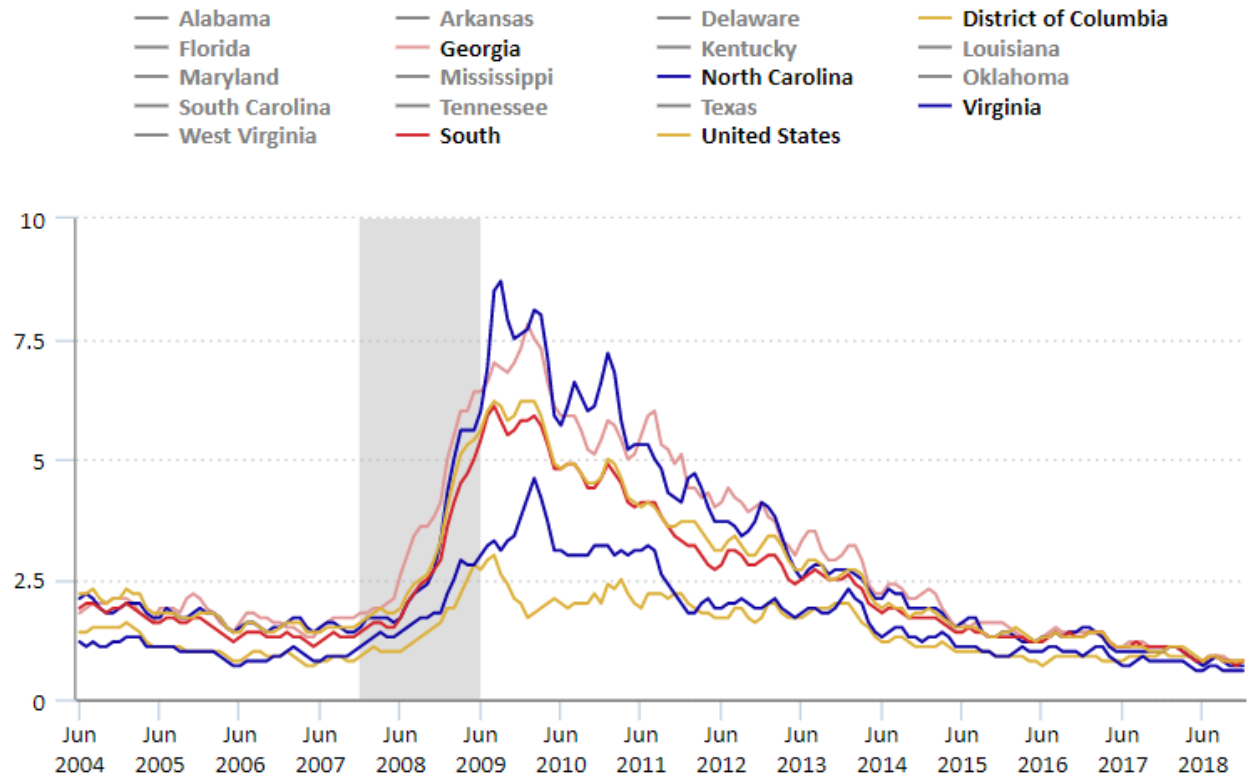


Click legend items to change data display. Hover over chart to view data.
Shaded area represents a recession as determined by the National Bureau of Economic Research.
Note: JOLTS experimental state estimates (released September 25, 2019), JOLTS United States, and JOLTS South region data are presented as not seasonally adjusted 3-month moving averages. Figures in this article display data back to June 2004. However, JOLTS experimental state estimates are available starting in February 2001.
Source: U.S. Bureau of Labor Statistics.

We can compare unemployment (labor supply) to job openings (labor demand) at the state level using the JOLTS experimental state estimates. The number of unemployed persons per job opening is a factor in both the supply of unemployed persons and the demand of employers.[7] The number of unemployed persons per job opening is a ratio of the level of unemployed persons, as published by the Current Population Survey (CPS), and the level of job openings. A ratio of 1.0 means there is an open job for every unemployed person. Lower ratios signal tighter labor markets, with firms having more job openings than there are people available to work. Higher ratios indicate there are more unemployed people competing for each job opening. While states in the South had similar ratios in recent years, differences emerged during and after the Great Recession.[8] In September 2009, North Carolina had the highest ratio of unemployed persons per job opening among the Southern states, at 8.7. In January 2010, Georgia had the highest ratio of unemployed persons per job openings at 7.8. The ratio for the District of Columbia was the lowest in the South region from June 2009 through August 2011. By December 2018, all but 2 states in the South region were below 1.0 unemployed persons per job opening, indicating there were more available jobs than unemployed people. Louisiana and Mississippi were not far off at 1.1 and 1.0, respectively. Shortly after the Great Recession, the ratios for Georgia and North Carolina were well above the national and regional ratios of

unemployed persons per job openings. However, by December 2018, both were at or below those ratios. Virginia has trended below the national and regional figures for the life of the series.

Chart 2. Unemployed persons per job openings in the United States, South region, and select Southern states, June 2004–December 2018, not seasonally adjusted

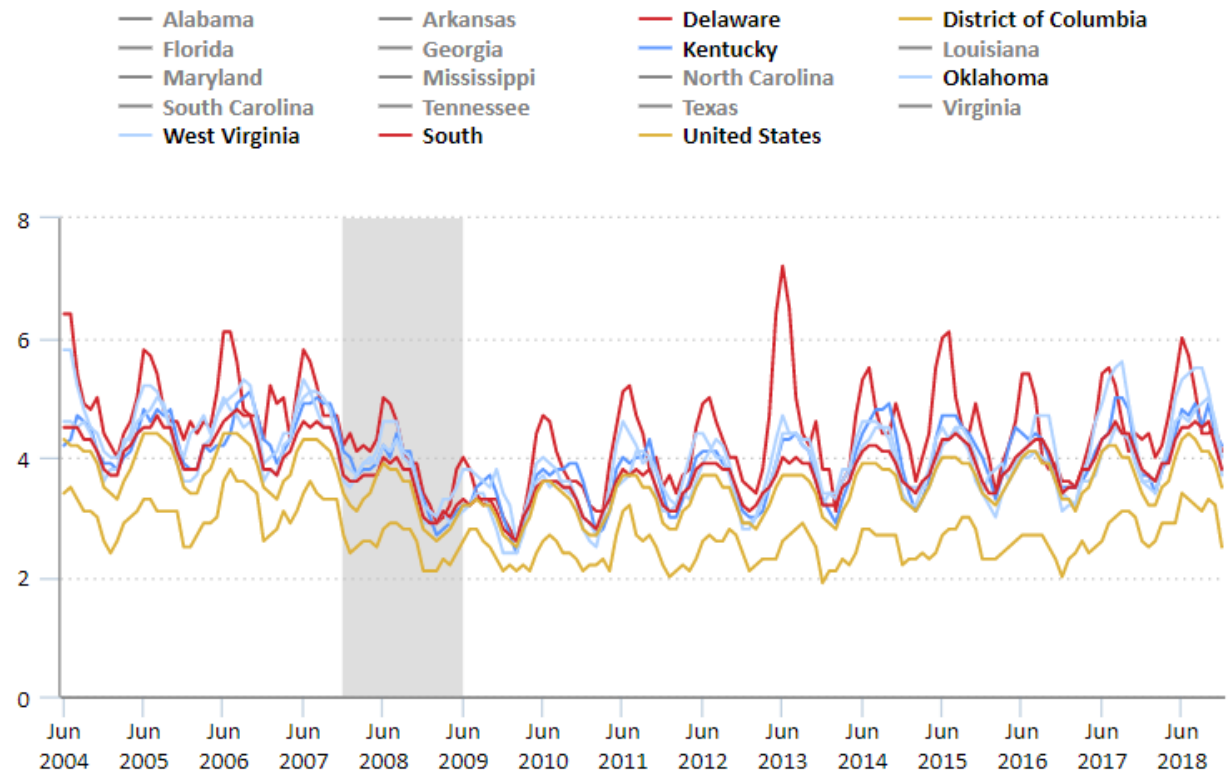


Click legend items to change data display. Hover over chart to view data.
Shaded area represents a recession as determined by the National Bureau of Economic Research.
Note: JOLTS experimental state estimates (released September 25, 2019), JOLTS United States, JOLTS South region, and Current Population Survey Unemployment data are presented as not seasonally adjusted 3-month moving averages.
Source: U.S. Bureau of Labor Statistics.

Trends in hiring

The JOLTS program defines hires as all additions to the payroll during the month. As chart 3 shows, the hires rates for the South region is higher than the U.S. average for most of the series. However, not all states in the South trended higher than the U.S. average. Delaware and West Virginia, which experienced greater fluctuations in hiring patterns during the period, had higher levels of hires than the South region and United States. In contrast, Kentucky and Oklahoma experienced hiring patterns more in line with the South region. The District of Columbia had the lowest average hires rate, lower than the South region and U.S. average. Chart 3 illustrates how aggregate regional JOLTS estimates do not always reveal the large seasonal patterns that some states experience.

Chart 3. Hires rates in the United States, South region, and select Southern states, June 2004–December 2018, not seasonally adjusted



Click legend items to change data display. Hover over chart to view data.
Shaded area represents a recession as determined by the National Bureau of Economic Research.
Note: JOLTS experimental state estimates (released September 25, 2019), JOLTS United States, and JOLTS South region data are presented as not seasonally adjusted 3-month moving averages.
Source: U.S. Bureau of Labor Statistics.

Trends in separations

Trends in separations often mirror the trends in hires. The JOLTS program defines separations as the number of employees separated from the payroll during the month. Total separations are composed of quits, layoffs and discharges, and other separations. Other separations are not published with the release of experimental state estimates, as they are a minor portion of total separations.

Quits, a component of total separations, are voluntary separations initiated by the employee. Quits can show employee confidence in the labor market. Employees tend to quit their jobs more frequently when they are confident they can find another one. At the U.S. level, quits increased by 6 percent from 2017 to 2018. At the regional level, quits in the South also increased by 6 percent during the period. Table 1 shows that the majority of Southern states experienced increased quits over the year. The highest percent increases were in Tennessee, North Carolina, and Oklahoma. Virginia, Georgia, and Maryland experienced decreases in quits over the year.

Table 1. Quits levels in the United States, South region, and Southern States in 2017 and 2018, not seasonally adjusted, levels in thousands

Area	Level by year		Over-the-year change
	2017	2018	Percent
United States	37,529	39,876	6
South	15,255	16,186	6
Alabama	551	573	4
Arkansas	368	386	5
Delaware	141	143	1
District of Columbia	142	147	4
Florida	2,130	2,254	6
Georgia	1,399	1,386	-1
Kentucky	580	605	4
Louisiana	604	623	3
Maryland	644	640	-1
Mississippi	340	351	3
North Carolina	1,190	1,475	24
Oklahoma	473	557	18
South Carolina	636	673	6
Tennessee	852	1,066	25
Texas	3,952	4,078	3
Virginia	1,037	993	-4
West Virginia	220	236	7

Note: JOLTS experimental state estimates (released September 25, 2019), JOLTS United States, and JOLTS South region data are presented as not seasonally adjusted 3-month moving averages. States within the region do not add to total due to rounding.
Source: U.S. Bureau of Labor Statistics.

Layoffs and discharges are involuntary separations initiated by the employer. At the U.S. level, layoffs and discharges increased by 1 percent from 2017 to 2018. However, during this time, the Southern region experienced a 4-percent increase in layoffs and discharges. Table 2 shows that within the Southern region, North Carolina, Tennessee, and Maryland experienced the largest increases in layoffs and discharges from 2017 to 2018. Georgia, Virginia, South Carolina, and Louisiana were the only states in the South in which layoffs and discharges decreased from 2017 to 2018.

Table 2. Layoffs and discharges levels in the United States, South region, and Southern states in 2017 and 2018, not seasonally adjusted, levels in thousands

Area	Level by year		Over-the-year change
	2017	2018	Percent
United States	21,597	21,846	1
South	8,085	8,368	4
Alabama	275	298	8
Arkansas	182	194	7
Delaware	77	81	5
District of Columbia	84	88	5
Florida	1,202	1,222	2
Georgia	878	647	-26

See footnotes at end of table.

Table 2. Layoffs and discharges levels in the United States, South region, and Southern states in 2017 and 2018, not seasonally adjusted, levels in thousands

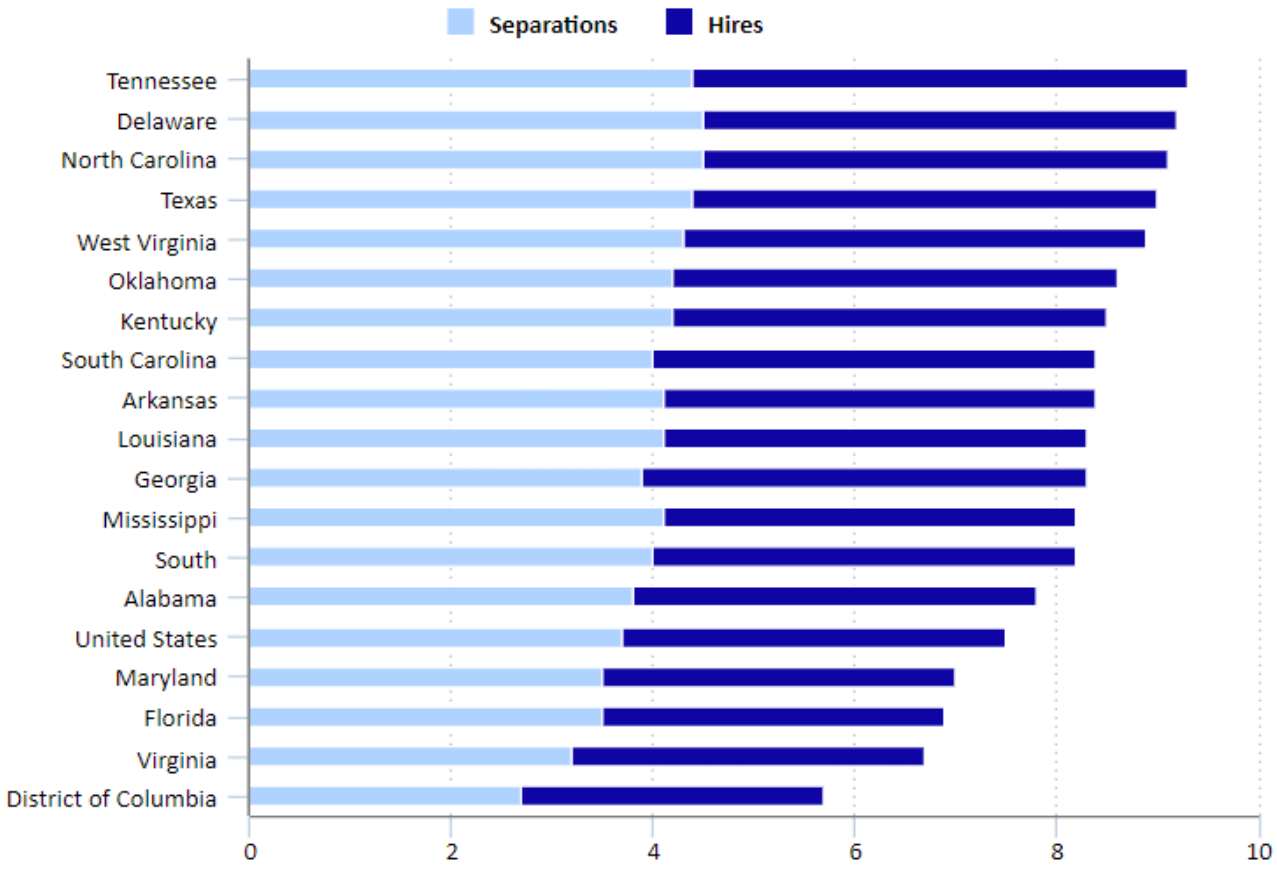
Area	Level by year		Over-the-year change
	2017	2018	Percent
Kentucky	292	303	4
Louisiana	339	308	-9
Maryland	400	461	15
Mississippi	168	183	9
North Carolina	623	805	29
Oklahoma	224	249	11
South Carolina	348	313	-10
Tennessee	402	475	18
Texas	1,946	2,187	12
Virginia	539	448	-17
West Virginia	112	115	3

Note: JOLTS experimental state estimates (released September 25, 2019), JOLTS United States, and JOLTS South region data are presented as not seasonally adjusted 3-month moving averages. States within the region do not add to total due to rounding.
Source: U.S. Bureau of Labor Statistics.

Trends in churn rates

The churn rate is defined in this article as the sum of the hires rate and the separations rate. A high churn rate indicates a labor market with a high hires rate, a high separations rate, or both, and it can signify more frequent job-to-job movement of workers in the labor market. Conversely, a low churn rate indicates a labor market with a low hires rate, a low separations rate, or both. The states with the highest 2018 churn rates were Tennessee, Delaware, and North Carolina. (See chart 4.) All three states had higher hires than separations. The District of Columbia, Virginia, and Florida had the lowest churn rates in 2018.

Chart 4. Average monthly churn, hires, and separations rates in United States, South region, and Southern states in 2018, not seasonally adjusted



Click legend items to change data display. Hover over chart to view data.
Note: The churn rate is the sum or the hires rate and separations rate. JOLTS experimental state estimates (released September 25, 2019), JOLTS United States, and JOLTS South region data are presented as not seasonally adjusted 3-month moving averages.
Source: U.S. Bureau of Labor Statistics.

Trends in fill rates

The fill rate is used to evaluate how employers differ in the rate that open jobs are filled. The annual fill rate is the ratio of hires to job openings over the year. An annual fill rate near or above 1.0 can indicate that employers are more efficient at filling job openings over the year. On the other hand, an annual fill rate less than 1.0 can indicate a tighter labor market, with employers having difficulties filling job openings. Table 3 shows that from 2017 to 2018, fill rates declined for the nation, South region, and all Southern states, except for the District of Columbia, Tennessee, and North Carolina. Louisiana had the highest annual fill rate in 2017, while Texas had the highest annual fill rate in 2018. Virginia had the lowest annual fill rate in 2017 and tied with Florida as the lowest in 2018.

Table 3. Annual average fill rates in the United States, South region, and Southern states in 2017 and 2018, not seasonally adjusted

Area	Fill rate by year		Over-the-year change
	2017	2018	Percent

See footnotes at end of table.

Table 3. Annual average fill rates in the United States, South region, and Southern states in 2017 and 2018, not seasonally adjusted

Area	Fill rate by year		Over-the-year change
	2017	2018	Percent
United States	0.90	0.81	-0.09
South	0.97	0.87	-0.10
Alabama	1.04	0.89	-0.16
Arkansas	1.06	0.96	-0.09
Delaware	0.99	0.94	-0.05
District of Columbia	0.76	0.84	0.08
Florida	0.95	0.70	-0.24
Georgia	1.03	0.87	-0.15
Kentucky	1.00	0.93	-0.07
Louisiana	1.12	1.00	-0.13
Maryland	0.81	0.72	-0.09
Mississippi	1.05	0.92	-0.12
North Carolina	0.87	0.87	0.00
Oklahoma	0.97	0.96	-0.01
South Carolina	1.01	0.80	-0.21
Tennessee	0.95	1.01	0.06
Texas	1.08	1.02	-0.06
Virginia	0.77	0.70	-0.07
West Virginia	0.94	0.88	-0.05

Note: JOLTS experimental state estimates (released September 25, 2019), JOLTS United States, and JOLTS South region data are presented as not seasonally adjusted 3-month moving averages.
Source: U.S. Bureau of Labor Statistics.

Conclusion

JOLTS experimental state estimates allow for labor market comparisons among states, regions, and the nation. The analyses in this article show differing labor trends between states within the South region. Through job openings, hires, separations, and other measures (such as churn rate and fill rate), JOLTS experimental state estimates provide valuable information about labor demand, labor turnover, and business cycles. JOLTS state-level estimates allow researchers and policymakers to better understand state-level economies, and help businesses and workers make informed decisions using more refined and accurate data than national and regional estimates. State estimates also can be useful to jobseekers, who can use it to evaluate labor market opportunities across states.

This **Beyond the Numbers** article was prepared by Katherine Bauer, Lawrence Essien, and Jean Ibrahim, economists in the Job Openings and Labor Turnover Survey Program, Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics. The JOLTS program invites your comments on the experimental state estimates. Please visit our website at https://www.bls.gov/jlt/jlt_statedata.htm, call us at (202) 691-5870, or email us at JoltsInfo@bls.gov.

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NOTES

[1] The JOLTS program publishes monthly estimates for major industries at the national level and total nonfarm estimates at the regional level. Users expressed a desire for state-level estimates, therefore the JOLTS program developed and published the state experimental series for the first time in 2019. The experimental models enable the production of estimates at the state total nonfarm level, using a combination of the current JOLTS sample, data from the Quarterly Census of Employment and Wages (QCEW), and data from the Current Employment Statistics (CES) program. Information on the methodology can be found on the JOLTS experimental state estimates website.

[2] The census regions and divisions of the United States are available at https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf.

[3] Labor force data by state can be found at https://www.bls.gov/lau/.

[4] Geographic employment information by state and region can be found at https://www.bls.gov/regions/home.htm. Please note the geographic employment used at the time of collecting and analyzing the data may not be the same as the current or revised data published.

[5] Employment by state can be found at https://www.bls.gov/sae/data/home.htm. Not seasonally adjusted annual averages are used in this analysis.

[6] The series dates back to February 2001.

[7] To calculate this ratio, divide the number of people who are unemployed by the number of job openings. Unemployment levels for the nation are published by the Current Population Survey and unemployment levels for regions and states are published by the Local Area Unemployment Statistics (LAUS). Persons are classified as unemployed if they do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work. More information at https://www.bls.gov/cps/lfcharacteristics.htm#unemp.

[8] December 2007 through June 2009 as determined by the National Bureau of Economic Research (NBER).

SUGGESTED CITATION

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