

# NEWS RELEASE

BUREAU OF LABOR STATISTICS  
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Technical information:

Employment: (202) 691-6559 • [sminfo@bls.gov](mailto:sminfo@bls.gov) • [www.bls.gov/sae](http://www.bls.gov/sae)  
Unemployment: (202) 691-6392 • [lausinfo@bls.gov](mailto:lausinfo@bls.gov) • [www.bls.gov/lau](http://www.bls.gov/lau)

Media contact: (202) 691-5902 • [PressOffice@bls.gov](mailto:PressOffice@bls.gov)

## STATE EMPLOYMENT AND UNEMPLOYMENT — OCTOBER 2018

Unemployment rates were lower in October in 6 states, higher in 2 states, and stable in 42 states and the District of Columbia, the U.S. Bureau of Labor Statistics reported today. Eighteen states had jobless rate decreases from a year earlier and 32 states and the District had little or no change. The national unemployment rate was unchanged from September at 3.7 percent but was 0.4 percentage point lower than in October 2017.

Nonfarm payroll employment increased in 9 states in October 2018 and was essentially unchanged in 41 states and the District of Columbia. Over the year, 36 states added nonfarm payroll jobs and 14 states and the District were essentially unchanged.

### Unemployment

Hawaii had the lowest unemployment rate in October, 2.3 percent. The rates in Texas (3.7 percent) and Washington (4.3 percent) set new series lows. (All state series begin in 1976.) Alaska had the highest jobless rate, 6.4 percent. In total, 14 states had unemployment rates lower than the U.S. figure of 3.7 percent, 11 states and the District of Columbia had higher rates, and 25 states had rates that were not appreciably different from that of the nation. (See tables A and 1 and map 1.)

In October, six states had unemployment rate decreases, the largest of which was in North Carolina (-0.2 percentage point). Two states had over-the-month rate increases: Colorado and Hawaii (+0.1 percentage point each). The remaining 42 states and the District of Columbia had jobless rates that were not notably different from those of a month earlier, though some had changes that were at least as large numerically as the significant changes. (See table B.)

### Hurricane Michael

Hurricane Michael made landfall in the Florida Panhandle on October 10, 2018, during the reference periods for both the establishment and household surveys. Response rates for the two surveys were within normal ranges for the affected areas.

Eighteen states had unemployment rate changes from October 2017, all of which were decreases. The largest decline occurred in New Mexico (-1.4 percentage points). (See table C.)

### **Nonfarm Payroll Employment**

Nonfarm payroll employment increased in nine states in October 2018. The largest job gains occurred in California (+36,400), Texas (+32,300), and North Carolina (+27,900). In percentage terms, the largest gains occurred in South Carolina (+0.9 percent), Alaska (+0.7 percent), and New Hampshire and North Carolina (+0.6 percent each). (See tables D and 3.)

Thirty-six states had over-the-year increases in nonfarm payroll employment in October. The largest job gains occurred in Texas (+384,800), California (+308,700), and Florida (+232,600). The largest percentage gain occurred in Nevada (+3.4 percent), followed by Utah and Washington (+3.3 percent each). (See table E and map 2.)

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**The Metropolitan Area Employment and Unemployment news release for October is scheduled to be released on Thursday, November 29, 2018, at 10:00 a.m. (EST). The State Employment and Unemployment news release for November is scheduled to be released on Friday, December 21, 2018, at 10:00 a.m. (EST).**

**Table A. States with unemployment rates significantly different from that of the U.S., October 2018, seasonally adjusted**

State	Rate <sup>p</sup>
United States <sup>1</sup> .....	3.7
Alaska .....	6.4
Arizona .....	4.7
California .....	4.1
Colorado .....	3.2
District of Columbia .....	5.6
Hawaii .....	2.3
Idaho .....	2.7
Iowa .....	2.4
Kentucky .....	4.5
Louisiana .....	5.0
Minnesota .....	2.8
Mississippi .....	4.7
Missouri .....	3.1
Nebraska .....	2.8
Nevada .....	4.4
New Hampshire .....	2.6
New Mexico .....	4.6
North Dakota .....	2.8
Ohio .....	4.6
South Dakota .....	3.0
Utah .....	3.2
Vermont .....	2.8
Virginia .....	2.9
Washington .....	4.3
West Virginia .....	5.2
Wisconsin .....	3.0

<sup>1</sup> Data are not preliminary.

<sup>p</sup> = preliminary.

**Table B. States with statistically significant unemployment rate changes from September 2018 to October 2018, seasonally adjusted**

State	Rate		Over-the-month change <sup>P</sup>
	September 2018	October 2018 <sup>P</sup>	
Alaska .....	6.5	6.4	-0.1
Colorado .....	3.1	3.2	.1
Florida .....	3.5	3.4	-.1
Hawaii .....	2.2	2.3	.1
New York .....	4.1	4.0	-.1
North Carolina .....	3.8	3.6	-.2
Oklahoma .....	3.5	3.4	-.1
Vermont .....	2.9	2.8	-.1

<sup>P</sup> = preliminary.

**Table C. States with statistically significant unemployment rate changes from October 2017 to October 2018, seasonally adjusted**

State	Rate		Over-the-year change <sup>P</sup>
	October 2017	October 2018 <sup>P</sup>	
Alaska .....	7.2	6.4	-0.8
California .....	4.5	4.1	-.4
Delaware .....	4.5	3.9	-.6
Florida .....	3.9	3.4	-.5
Georgia .....	4.5	3.6	-.9
Illinois .....	4.9	4.2	-.7
Iowa .....	2.9	2.4	-.5
Michigan .....	4.7	3.9	-.8
Minnesota .....	3.3	2.8	-.5
New Jersey .....	4.7	4.1	-.6
 New Mexico .....	 6.0	 4.6	 -1.4
New York .....	4.7	4.0	-.7
North Carolina .....	4.5	3.6	-.9
Oklahoma .....	4.1	3.4	-.7
Pennsylvania .....	4.8	4.1	-.7
South Carolina .....	4.2	3.3	-.9
South Dakota .....	3.4	3.0	-.4
Virginia .....	3.6	2.9	-.7

<sup>P</sup> = preliminary.

**Table D. States with statistically significant employment changes from September 2018 to October 2018, seasonally adjusted**

State	September 2018	October 2018 <sup>p</sup>	Over-the-month change <sup>p</sup>	
			Level	Percent
Alaska .....	327,200	329,500	2,300	0.7
California .....	17,200,200	17,236,600	36,400	.2
New Hampshire .....	690,900	694,800	3,900	.6
New Jersey .....	4,195,900	4,213,300	17,400	.4
North Carolina .....	4,511,000	4,538,900	27,900	.6
Pennsylvania .....	6,044,900	6,063,400	18,500	.3
South Carolina .....	2,115,100	2,134,100	19,000	.9
Texas .....	12,653,400	12,685,700	32,300	.3
Washington .....	3,448,300	3,460,700	12,400	.4

<sup>p</sup> = preliminary.

**Table E. States with statistically significant employment changes from October 2017 to October 2018, seasonally adjusted**

State	October 2017	October 2018 <sup>p</sup>	Over-the-year change <sup>p</sup>	
			Level	Percent
Alabama .....	2,018,500	2,052,100	33,600	1.7
Arizona .....	2,793,600	2,880,300	86,700	3.1
California .....	16,927,900	17,236,600	308,700	1.8
Colorado .....	2,675,100	2,747,100	72,000	2.7
Connecticut .....	1,679,600	1,701,900	22,300	1.3
Florida .....	8,614,700	8,847,300	232,600	2.7
Georgia .....	4,482,200	4,575,800	93,600	2.1
Hawaii .....	653,800	664,700	10,900	1.7
Idaho .....	723,800	739,100	15,300	2.1
Illinois .....	6,074,800	6,134,100	59,300	1.0
Iowa .....	1,573,500	1,595,300	21,800	1.4
Kansas .....	1,405,900	1,425,400	19,500	1.4
Maryland .....	2,723,100	2,761,600	38,500	1.4
Massachusetts .....	3,619,100	3,683,500	64,400	1.8
Michigan .....	4,379,700	4,441,500	61,800	1.4
Minnesota .....	2,942,500	2,978,100	35,600	1.2
Missouri .....	2,872,600	2,917,200	44,600	1.6
Nebraska .....	1,016,100	1,032,200	16,100	1.6
Nevada .....	1,352,100	1,397,900	45,800	3.4
New Hampshire .....	679,500	694,800	15,300	2.3
New Jersey .....	4,144,800	4,213,300	68,500	1.7
New Mexico .....	832,900	855,200	22,300	2.7
New York .....	9,546,000	9,668,800	122,800	1.3
North Carolina .....	4,435,400	4,538,900	103,500	2.3
Ohio .....	5,531,800	5,647,200	115,400	2.1
Oklahoma .....	1,675,900	1,699,100	23,200	1.4
Oregon .....	1,885,100	1,931,600	46,500	2.5
Pennsylvania .....	5,971,100	6,063,400	92,300	1.5
South Carolina .....	2,096,300	2,134,100	37,800	1.8
South Dakota .....	436,500	443,800	7,300	1.7
Tennessee .....	3,025,100	3,084,400	59,300	2.0
Texas .....	12,300,900	12,685,700	384,800	3.1
Utah .....	1,480,000	1,528,600	48,600	3.3
Virginia .....	3,956,300	4,027,700	71,400	1.8
Washington .....	3,351,100	3,460,700	109,600	3.3
Wisconsin .....	2,947,200	2,978,700	31,500	1.1

<sup>p</sup> = preliminary.

# Technical Note

This news release presents civilian labor force and unemployment data for states and selected substate areas from the Local Area Unemployment Statistics (LAUS) program (tables 1 and 2). Also presented are nonfarm payroll employment estimates by state and industry supersector from the Current Employment Statistics (CES) program (tables 3 and 4). The LAUS and CES programs are both federal-state cooperative endeavors.

## Civilian labor force and unemployment—from the LAUS program

**Definitions.** The civilian labor force and unemployment data are based on the same concepts and definitions as those used for the official national estimates obtained from the Current Population Survey (CPS), a sample survey of households that is conducted for the Bureau of Labor Statistics (BLS) by the U.S. Census Bureau. The LAUS program measures employed people and unemployed people on a place-of-residence basis. The universe for each is the civilian noninstitutional population 16 years of age and older. Employed people are those who did any work at all for pay or profit in the reference week (typically the week including the 12th of the month) or worked 15 hours or more without pay in a family business or farm, plus those not working who had a job from which they were temporarily absent, whether or not paid, for such reasons as bad weather, labor-management dispute, illness, or vacation.

Unemployed people are those who were not employed during the reference week (based on the definition above), had actively looked for a job sometime in the 4-week period ending with the reference week, and were currently available for work; people on layoff expecting recall need not be looking for work to be counted as unemployed. The civilian labor force is the sum of employed and unemployed people. The unemployment rate is the number of unemployed as a percent of the civilian labor force.

**Method of estimation.** Estimates for 48 states, the District of Columbia, the Los Angeles-Long Beach-Glendale metropolitan division, New York City, and the balances of California and New York State are produced using time-series models. This method, which underwent substantial enhancement at the beginning of 2015, utilizes data from several sources, including the CPS, the CES, and state unemployment insurance (UI) programs. Estimates for the state of California are derived by summing the estimates for the Los Angeles-Long Beach-Glendale metropolitan division and the balance of California. Similarly, estimates for New York State are derived by summing the estimates for New York City and the balance of New York State. Estimates for the five additional substate areas contained in this release (the Cleveland-Elyria and Detroit-Warren-Dearborn metropolitan areas and the Chicago-Naperville-Arlington Heights, Miami-Miami Beach-Kendall, and Seattle-Bellevue-Everett metropolitan divisions) and their respective balances of state are produced using a similar model-based approach.

Each month, estimates for the nine census divisions first are modeled using inputs from the CPS only and controlled to the

national totals. State estimates then are controlled to their respective census division totals. Substate and balance-of-state estimates for the five areas noted above also are controlled to their respective state totals. This tiered process of controlling model-based estimates to the U.S. totals is called real-time benchmarking. Estimates for Puerto Rico are derived from a monthly household survey similar to the CPS. A more detailed description of the estimation procedures is available from BLS upon request.

**Annual revisions.** Civilian labor force and unemployment data for prior years reflect adjustments made after the end of each year. The adjusted estimates reflect updated population data from the U.S. Census Bureau, any revisions in the other data sources, and model re-estimation. In most years, historical data for the most recent five years are revised near the beginning of each calendar year, prior to the release of January estimates. With the introduction of a new generation of times-series models in early 2015, historical data were re-estimated back to the series beginnings in 1976, 1990, or 1994.

**Seasonal adjustment.** The LAUS models decompose the estimates of employed and unemployed people into trend, seasonal, and irregular components. Prior to 2018, the benchmarked trend component of each measure had been smoothed using a Trend-Cycle Cascade Filter. With changes implemented in early 2018, the benchmarked signals of employed and unemployed people first are adjusted using an X-11 type of seasonal adjustment filter. The adjusted data then are smoothed using a Reproducing Kernel Hilbert Space (RKHS) filter. The smoothed-seasonally adjusted estimates of employed and unemployed people are summed to derive the civilian labor force, and the unemployment rate then is calculated as the unemployed percent of the civilian labor force. The resulting smoothed-seasonally adjusted unemployment rate estimates are analyzed in this news release and published on the BLS website.

During estimation for the current year, the smoothed-seasonally adjusted estimates for a given month are created using an asymmetric filter that incorporates information from previous observations only. For annual revisions, historical data are smoothed using a two-sided filter.

In early 2018, historical data were re-estimated back to the series beginnings in 1976, 1990, or 1994 to incorporate the changes to the seasonal adjustment and smoothing procedures described above.

**Area definitions.** The substate area data published in this release reflect the delineations that were issued by the U.S. Office of Management and Budget on July 15, 2015. A detailed list of the geographic definitions is available online at [www.bls.gov/lau/lausmsa.htm](http://www.bls.gov/lau/lausmsa.htm).

## Employment—from the CES program

**Definitions.** Employment data refer to persons on establishment payrolls who receive pay for any part of the pay period that includes the 12th of the month. Persons are counted at their place of work rather than at their place of residence; those appearing on more than one payroll are counted on each

payroll. Industries are classified on the basis of their principal activity in accordance with the 2017 version of the North American Industry Classification System.

**Method of estimation.** CES State and Area employment data are produced using several estimation procedures. Where possible these data are produced using a "weighted link relative" estimation technique in which a ratio of current month weighted employment to that of the previous-month weighted employment is computed from a sample of establishments reporting for both months. The estimates of employment for the current month are then obtained by multiplying these ratios by the previous month's employment estimates. The weighted link relative technique is utilized for data series where the sample size meets certain statistical criteria.

For some employment series, the sample of establishments is very small or highly variable. In these cases, a model-based approach is used in estimation. These models use the direct sample estimates (described above), combined with forecasts of historical (benchmarked) data to decrease volatility in estimation. Two different models (Fay-Herriot Model and Small Domain Model) are used depending on the industry level being estimated. For more detailed information about each model, refer to the BLS Handbook of Methods.

**Annual revisions.** Employment estimates are adjusted annually to a complete count of jobs, called benchmarks, derived principally from tax reports that are submitted by employers who are covered under state unemployment insurance (UI) laws. The benchmark information is used to adjust the monthly estimates between the new benchmark and the preceding one and also to establish the level of employment for the new benchmark month. Thus, the benchmarking process establishes the level of employment, and the sample is used to measure the month-to-month changes in the level for the subsequent months. Information on recent benchmark revisions is available online at [www.bls.gov/web/lau/benchmark.pdf](http://www.bls.gov/web/lau/benchmark.pdf).

**Seasonal adjustment.** Payroll employment data are seasonally adjusted at the statewide expanded supersector level. In some cases, the seasonally adjusted payroll employment total is computed by aggregating the independently adjusted supersector series. In other cases, the seasonally adjusted payroll employment total is independently adjusted. Revisions to historical data for the most recent five years are made once a year, coincident with annual benchmark adjustments.

Beginning with the release of January 2018 preliminary estimates, payroll employment data are seasonally adjusted concurrently, using all available estimates including those for the current month, to develop sample-based seasonal factors. Concurrent sample-based factors are created every month for the current month's preliminary estimate as well as the previous month's final estimate in order to incorporate real-time estimates. Previously, the sample-based seasonal factors were forecasted once annually at the beginning of the year and applied to the sample-based estimates for the 12 months of the year.

**Caution on aggregating state data.** State estimation procedures are designed to produce accurate data for each individual state. BLS independently develops a national employment series; state estimates are not forced to sum to national totals. Because each state series is subject to larger sampling and nonsampling errors than the national series, summing them cumulates individual state-level errors and can cause significant distortions at an aggregate level. Due to these statistical limitations, BLS does not compile a "sum-of-states" employment series, and cautions users that such a series is subject to a relatively large and volatile error structure.

## Reliability of the estimates

The estimates presented in this release are based on sample surveys, administrative data, and modeling and, thus, are subject to sampling and other types of errors. Sampling error is a measure of sampling variability—that is, variation that occurs by chance because a sample rather than the entire population is surveyed. Survey data also are subject to nonsampling errors, such as those which can be introduced into the data collection and processing operations. Estimates not directly derived from sample surveys are subject to additional errors resulting from the specific estimation processes used.

**Use of error measures.** Changes in state unemployment rates and state nonfarm payroll employment are cited in the analysis of this release only if they have been determined to be statistically significant at the 90-percent confidence level. Furthermore, state unemployment rates for the current month generally are cited only if they have been determined to be significantly different from the U.S. rate at the 90-percent confidence level. The underlying model-based standard error measures for unemployment rates and over-the-month and over-the-year changes in rates are available at [www.bls.gov/lau/lastderr.htm](http://www.bls.gov/lau/lastderr.htm). The underlying standard error measures for over-the-month and over-the-year changes in state payroll employment data at the total nonfarm and supersector levels are available at [www.bls.gov/web/laus/790stderr.htm](http://www.bls.gov/web/laus/790stderr.htm). Measures of nonsampling error are not available.

## Additional information

Estimates of civilian labor force and unemployment from the LAUS program, as well as nonfarm payroll employment from the CES program, for metropolitan areas and metropolitan divisions are available in the news release Metropolitan Area Employment and Unemployment. Estimates of civilian labor force, employed people, unemployed people, and unemployment rates for approximately 7,000 subnational areas are available online at [www.bls.gov/lau/](http://www.bls.gov/lau/). Employment data from the CES program for states and metropolitan areas are available online at [www.bls.gov/sae/](http://www.bls.gov/sae/). Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.

















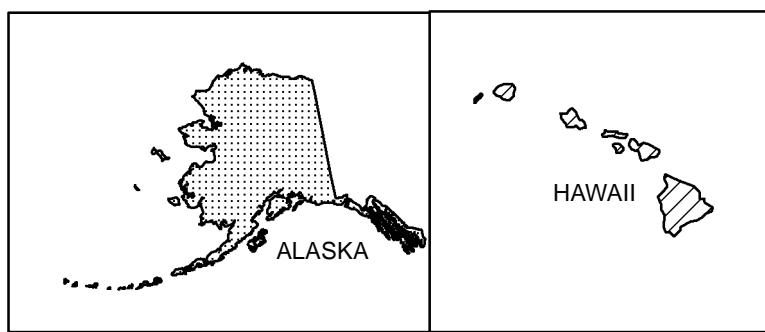
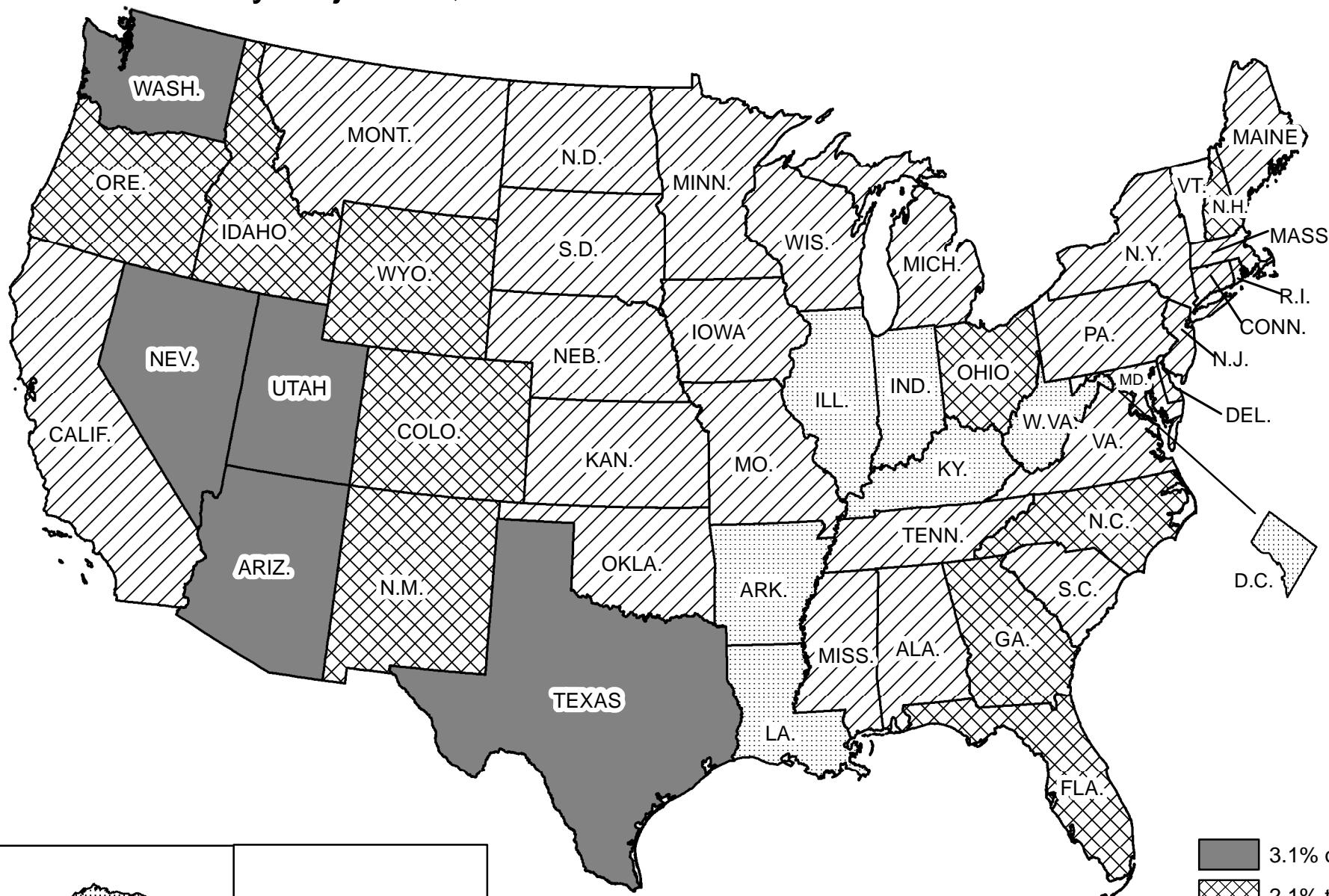


# Map 1. Unemployment rates by state, seasonally adjusted, October 2018

(U.S. rate = 3.7 percent)



## Map 2. Percentage change in nonfarm employment by state, seasonally adjusted, October 2017 - October 2018



- 3.1% or higher
- 2.1% to 3.0%
- 1.1% to 2.0%
- 0.1% to 1.0%
- 0.0% or lower