



## ECONOMY AT A GLANCE

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A Publication of the University Research Center, Mississippi Institutions of Higher Learning

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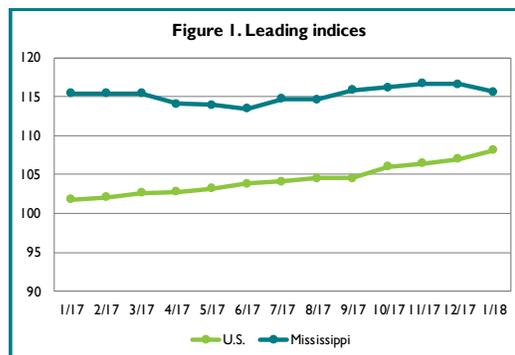
The value of the Mississippi Leading Index (MLI) fell 0.9 percent in January as seen in Figure 1 below. Compared to one year ago the value of the MLI was 0.2 percent higher for the month.

Due to annual revisions by the Philadelphia Federal Reserve, values of the Mississippi Coincident Index for January are unavailable until April. Figure 2 below indicates the value of the U.S. Coincident Economic Index increased 0.1 percent in January.

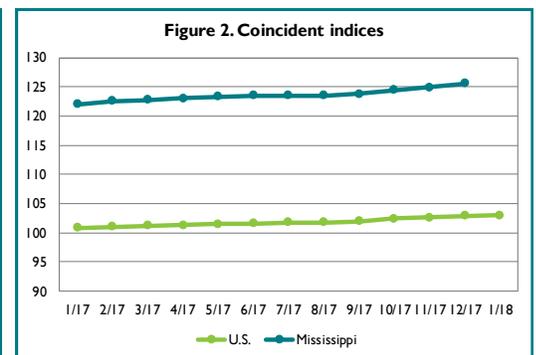
The U.S. Bureau of Economic Analysis (BEA) reported in its second estimate of the change in U.S. real gross domestic product (GDP) for the fourth quarter an increase of 2.5 percent. This rate represents a slight reduction of 0.1 percentage point from its initial estimate. The estimate was lowered because of smaller pri-

vate inventory investment than previously measured. The change in U.S. real GDP for all of 2017 reported by BEA remained 2.3 percent following the slight revision to the fourth quarter estimate. Some economists expect growth will slow in the first quarter of 2018, as has been the case in the first quarter in recent years.

The MLI started 2018 on a down note largely due to weakness in the state's Manufacturing sector. Initial employment claims climbed in January as well. Nevertheless, employment in Mississippi increased for the fourth straight month. Revised data from BLS indicate relatively strong job growth in the last three months of 2017, led by the service sectors. The state's economy may have taken a winter pause as has been the case in recent years, but future data are needed to know if something more is happening.



Sources: University Research Center and The Conference Board



Sources: Federal Reserve Bank of Philadelphia and The Conference Board

**Notes:** The Mississippi Coincident Index is constructed by the Federal Reserve Bank of Philadelphia and re-indexed to 2004. The index is based on changes in nonfarm employment, the unemployment rate, average manufacturing work-week length, and wage and salary disbursements. The Mississippi Leading Index is constructed by the Mississippi University Research Center. The U.S. Indices are from The Conference Board. All series are indexed to a base year of 2004.

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## MISSISSIPPI'S BUSINESS

## MISSISSIPPI LEADING INDEX, JANUARY 2018

The value of the **Mississippi Leading Index of Economic Indicators (MLI)** fell 0.9 percent in January as seen in Figure 3, the first monthly decline since August and the largest since April 2017. The value of the MLI was 0.2 percent higher for the month compared to one year ago. Over the last six months the value of the MLI increased 0.8 percent.

Four of the seven components of the MLI decreased in value in January. The Mississippi Manufacturing Employment Intensity Index and initial unemployment claims subtracted the most from the value of the MLI in January. Each component is discussed below in order of smallest to largest contribution.

Figure 4 indicates the **Mississippi Manufacturing Employment Intensity Index** fell 2.3 percent in value in January, its third decline in the last four months. Similarly, the value for the month was down 3.5 percent compared to one year ago, the largest year-over-year decrease since April 2017. Manufacturing employment in Mississippi and average weekly hours of production employees declined in January by 0.8 percent and 1.5 percent, respectively.

The value of seasonally-adjusted **initial unemployment claims** in Mississippi surged 18.9 percent in January as seen in Figure 5. The percentage increase for the month was the largest since January 2013. Nevertheless, compared to one year ago the value for the month was 11.4 percent lower. The value of seasonally-adjusted continued unemployment claims in Mississippi, in contrast, decreased 2.4 percent in January as seen in Figure 11 on page 4. Compared to one year ago the number of continued unemployment claims in Mississippi for the month was 22.3 percent lower, the largest year-over-year decrease since May 2017. As seen in Figure 12 on page 4 the seasonally-adjusted unemployment rate in Mississippi fell 0.2 percentage point to 4.6 percent in January, another low in the series that BLS began reporting in 1976. The rate was 0.8 percentage point lower for the month compared to one year ago.

**Mississippi residential building permits** (three-month moving average) sank 5.8 percent in value in January as Figure 6 indicates. The decrease was the largest monthly decline since May 2017, and the value fell to its lowest level since July 2017. Similarly, the value for January compared to one year ago was 17.8 percent lower, the largest year-over-year decline since April 2017. The seasonally-adjusted number of units for which building permits were

issued (three-month moving average) in Mississippi fell 7.9 percent for the month, also its largest monthly decline since May. The number of units for the month was 28.4 percent lower compared to one year ago. In contrast, the number of privately-owned housing units in the U.S. authorized by building permits rose 7.4 percent in January from the revised December value. The number of units in the U.S. in January was also 7.4 percent higher compared to one year ago.

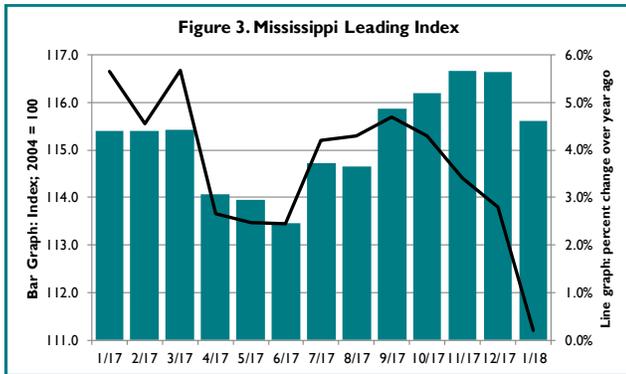
The value of **U.S. retail sales** fell in January for the first time since August. Previous months' values were also revised lower. As seen in Figure 7, the value declined 0.3 percent for the month. Nevertheless, the value of January U.S. retail sales was 3.6 percent higher compared to one year ago. Over the last six months retail sales increased 3.2 percent. Retail sales excluding automobiles were unchanged in January, reflecting the decline in the component for the month. However, the largest decrease occurred in building materials, which fell 2.4 percent. Gasoline sales experienced the largest increase.

The value of the **University of Michigan Index of Consumer Expectations** (three-month moving average) edged higher by 0.4 percent as seen in Figure 8. Despite the increase the value of the Index was 2.1 percent lower in January compared to one year ago. In the most recent survey the share of households reporting improved finances over the past year was the highest in twenty years. Both short-term and long-term inflation expectations were unchanged in the latest survey.

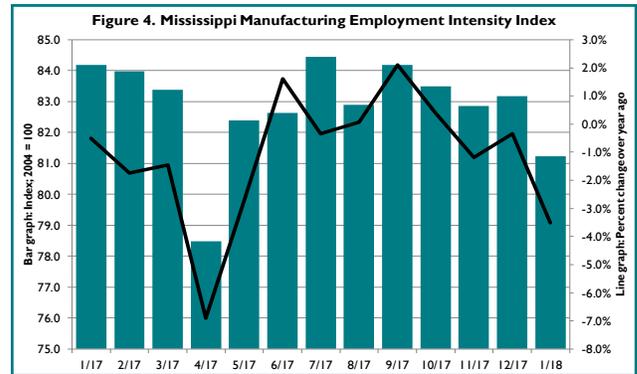
As indicated in Figure 9, the value of **Mississippi income tax withholdings** (three-month moving average) increased 0.5 percent in January. The value rose 0.8 percent for the month compared to one year ago, the smallest year-over-year increase since September. Over the last six months the value of withholdings increased 0.9 percent.

The **Institute for Supply Management Index of U.S. Manufacturing Activity** climbed 2.9 percent in value in February as seen in Figure 10. The value of the Index was 5.6 percent higher for the month compared to one year ago. The largest increase among the components of the Index occurred in Employment, closely followed by Inventories. The Production and New Orders components both declined for the month. Notably, the prices paid index is up 8.6 percent in 2018.

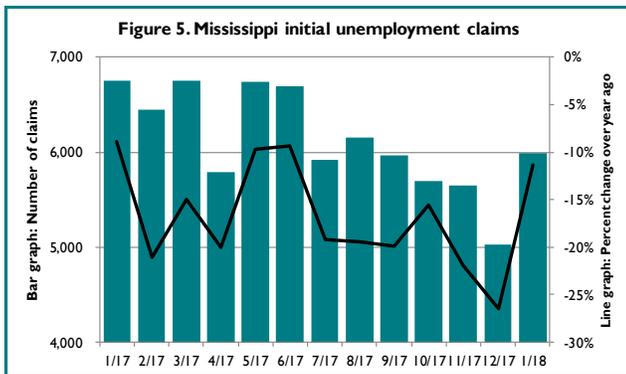
# MISSISSIPPI LEADING INDEX AND COMPONENTS, IN FIGURES



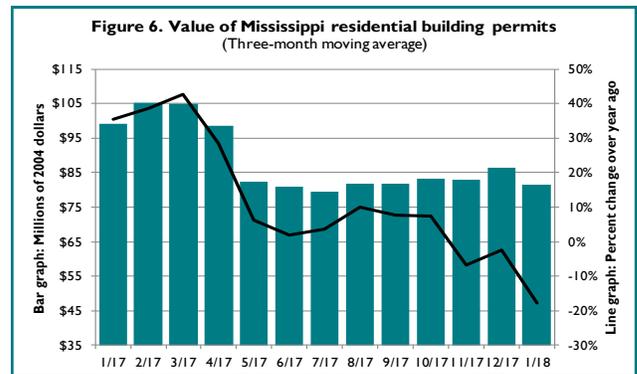
Source: University Research Center



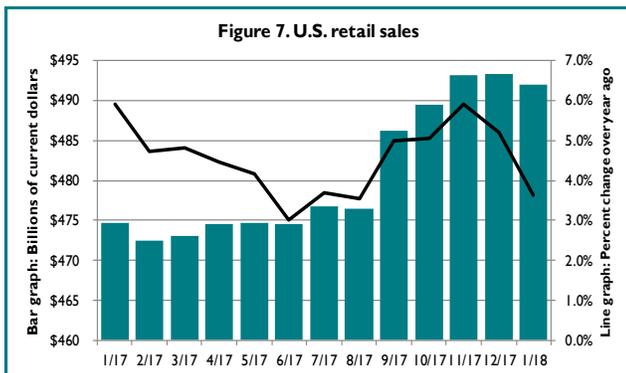
Source: URC using data from Bureau of Labor Statistics



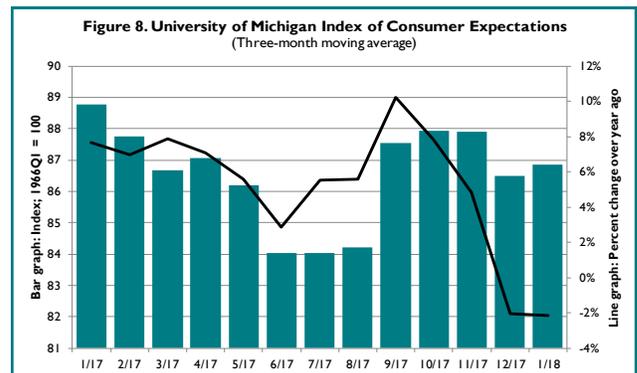
Source: U.S. Department of Labor; seasonally adjusted



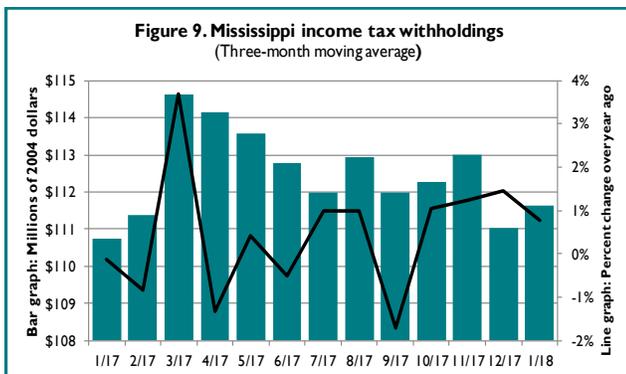
Source: Bureau of the Census; seasonally adjusted



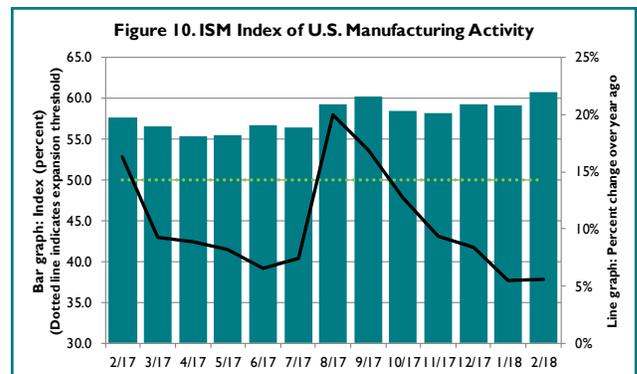
Source: Bureau of the Census



Source: Institute for Supply Management



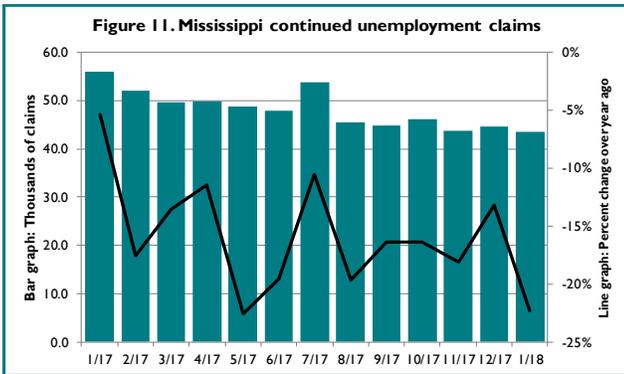
Source: Mississippi Department of Revenue; seasonally adjusted



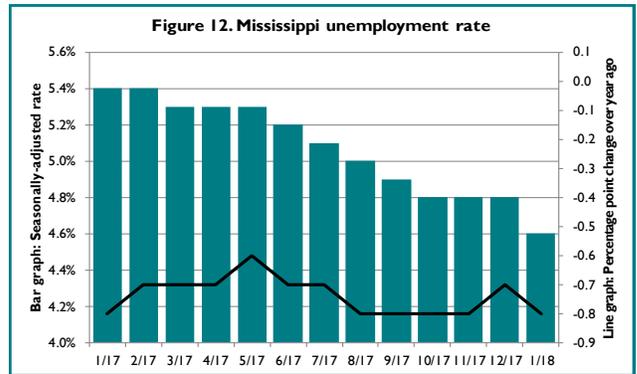
Source: Thomson Reuters/University of Michigan Surveys of Consumers

MISSISSIPPI'S BUSINESS

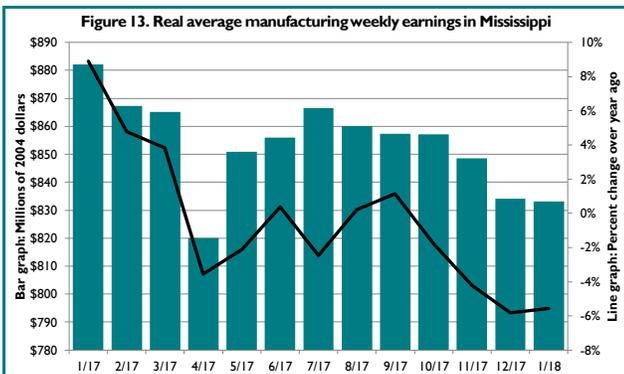
MISCELLANEOUS ECONOMIC INDICATORS, IN FIGURES



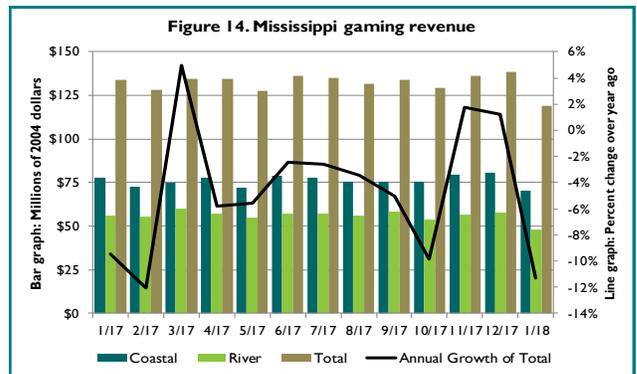
Source: U.S. Department of Labor; seasonally adjusted



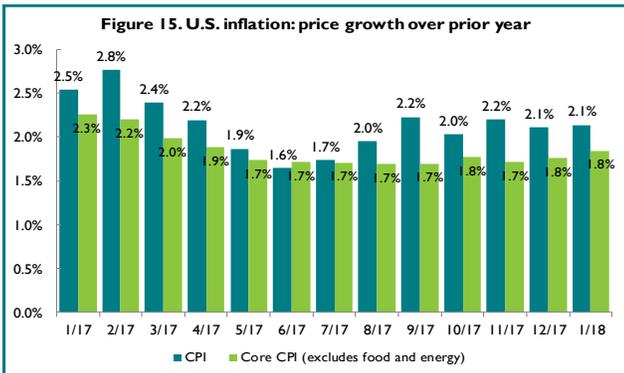
Source: U.S. Bureau of Labor Statistics; seasonally adjusted



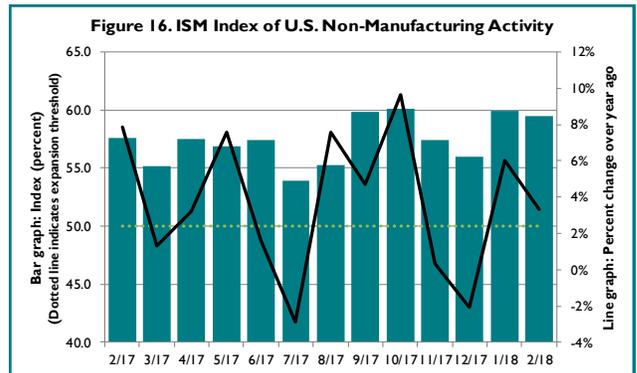
Source: U.S. Bureau of Labor Statistics; non-seasonally adjusted



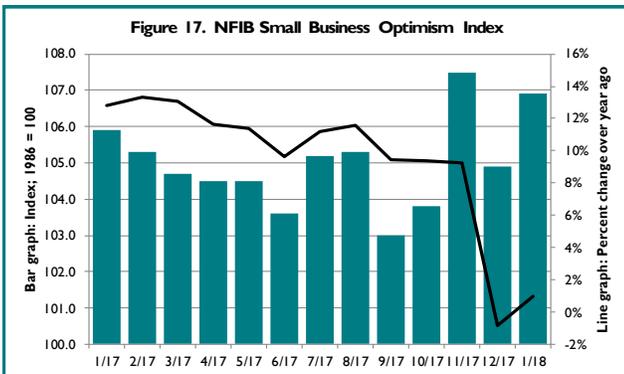
Source: Mississippi Department of Revenue; seasonally adjusted



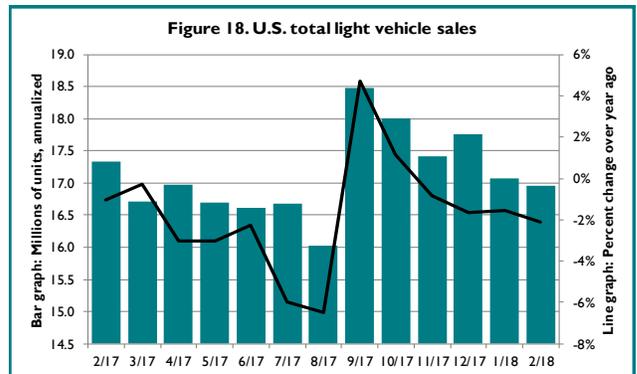
Source: U.S. Bureau of Labor Statistics



Source: Institute for Supply Management



Source: National Federation of Independent Businesses



Source: Bureau of Economic Analysis; seasonally adjusted at annual rates

## NATIONAL TRENDS

The value of the U.S. Leading Economic Index (LEI) climbed 1.0 percent in January according to The Conference Board. The value of the LEI was 6.2 percent higher in January compared to one year ago, the largest year-over-year increase since October 2014. Eight of the ten components of the LEI increased in value in January and the largest contribution came from building permits.

The value of the U.S. Coincident Economic Index (CEI) increased 0.1 percent in January according to The Conference Board and as seen in Figure 2 on page 1. For the month the value of the CEI was 2.2 percent higher compared to one year ago. Three of the four components of the CEI increased in January and the largest contribution came from employees on nonagricultural payrolls.

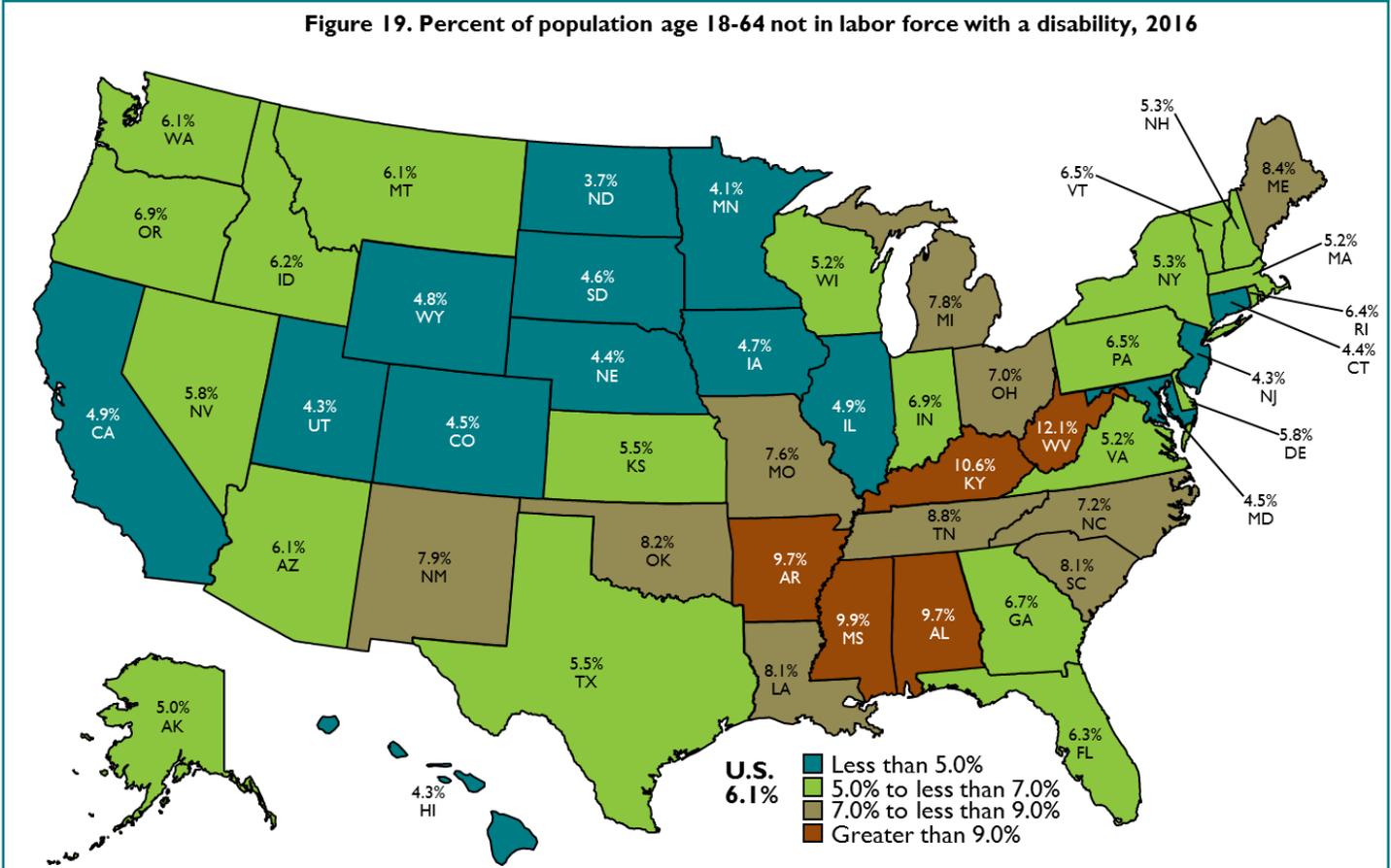
The value of the National Federation of Independent Businesses (NFIB) Small Business Optimism Index climbed 1.9 percent in January as seen in Figure 17 on page 4. Compared to one year ago the value of the Index was 0.9 percent higher for the month. Most of the components of the

Index increased in January and the largest increase occurred in the “earnings trend” component. The only components to decline for the month were the “current inventory” and “expect real sales higher” components, while “plans to increase employment” was unchanged.

The Federal Open Market Committee (FOMC) is expected to raise the federal funds rate target by 0.25 basis points at its first meeting led by new Federal Reserve Chair Jerome Powell later this month. In the minutes of the January meeting and in Powell’s Congressional testimony last month, Fed officials indicated a stronger outlook for the U.S. economy. While the Fed has not changed its guidance, many observers believe the FOMC will raise interest rates four times in 2018 rather than the three increases previously indicated because of concerns about growth in inflation.

Figure 19 below depicts the most recent data by state for adults not in the labor force with a disability. Mississippi’s rate of 9.9 percent was the third-highest among all states.

Figure 19. Percent of population age 18-64 not in labor force with a disability, 2016



Source: URC calculations from U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

## MISSISSIPPI'S BUSINESS

TABLE I. SELECTED ECONOMIC INDICATORS

| Indicator  | January 2018 | December 2017 | January 2017 | Percent change from<br>December 2017 January 2017 |        |   |
|--|--------------|---------------|--------------|---|--------|---|
| <b>U.S. Leading Economic Index</b><br>2004 = 100. Source: The Conference Board   | 108.1        | 107.0         | 101.8        | ▲1.0%   | ▲6.2%  | Economic Indices                            |
| <b>U.S. Coincident Economic Index</b><br>2004 = 100. Source: The Conference Board  | 103.0        | 102.9         | 100.8        | ▲0.1%   | ▲2.2%  |   |
| <b>Mississippi Leading Index</b><br>2004 = 100. Source: University Research Center   | 115.6        | 116.6         | 115.4        | ▼0.9%   | ▲0.2%  |   |
| <b>Mississippi Coincident Index</b><br>2004 = 100. Source: Federal Reserve Bank of Philadelphia  | N/A          | 125.6         | 122.0        | N/A   | N/A    |   |
| <b>Mississippi initial unemployment claims</b><br>Seasonally adjusted. Source: U.S. Department of Labor  | 5,984        | 5,032         | 6,752        | ▲18.9%  | ▼11.4% | Components of the Mississippi Leading Index |
| <b>Value of Mississippi residential building permits</b><br>Three-month moving average; seasonally adjusted; millions of 2004 dollars.<br>Source: Bureau of the Census                 | 81.5         | 86.5          | 99.1         | ▼5.8%   | ▼17.8% |   |
| <b>Mississippi income tax withholdings</b><br>Three-month moving average; seasonally adjusted; millions of 2004 dollars.<br>Source: Mississippi Department of Revenue                  | 111.6        | 111.0         | 110.8        | ▲0.5%   | ▲0.8%  |   |
| <b>Mississippi Manufacturing Employment Intensity Index</b><br>2004 = 100. Source: URC using data from U.S. Bureau of Labor Statistics   | 81.2         | 83.2          | 84.2         | ▼2.3%   | ▼3.5%  |   |
| <b>University of Michigan Index of Consumer Expectations</b><br>Three-month moving average; index 1966Q1 = 100.<br>Source: Thomson Reuters/University of Michigan Surveys of Consumers | 86.9         | 86.5          | 88.8         | ▲0.4%   | ▼2.1%  |   |
| <b>ISM Index of U.S. Manufacturing Activity</b><br>Advanced one month. Source: Institute for Supply Management   | 60.8         | 59.1          | 57.6         | ▲2.9%   | ▲5.6%  |   |
| <b>U.S. retail sales</b><br>Current dollars, in billions. Source: Bureau of the Census   | 492.0        | 493.3         | 474.7        | ▼0.3%   | ▲3.6%  |   |
| <b>U.S. Consumer Price Index (CPI)</b>   | 131.9        | 131.2         | 129.2        | ▲0.5%   | ▲2.1%  |   |
| <b>U.S. Core CPI (excludes food and energy)</b><br>2004 = 100. Source: URC using data from Bureau of Labor Statistics  | 129.8        | 129.4         | 127.5        | ▲0.3%   | ▲1.8%  |   |
| <b>Mississippi unemployment rate</b><br>Percentage point change. Seasonally-adjusted.<br>Source: U.S. Bureau of Labor Statistics   | 4.6%         | 4.8%          | 5.4%         | ▼0.2  | ▼0.8   | Miscellaneous Indicators                    |
| <b>Mississippi continued unemployment claims</b><br>Seasonally adjusted. Source: U.S. Department of Labor  | 43,486       | 44,566        | 55,989       | ▼2.4%   | ▼22.3% |   |
| <b>ISM Index of U.S. Non-Manufacturing Activity</b><br>Advanced one month. Source: Institute for Supply Management   | 59.5         | 59.9          | 57.6         | ▼0.7%   | ▲3.3%  |   |
| <b>U.S. mortgage rates</b><br>Percentage point change. Seasonally adjusted; 30-year conventional.<br>Source: Federal Home Loan Mortgage Corporation                                    | 3.88%        | 3.86%         | 4.02%        | ▲0.02   | ▼0.14  |   |
| <b>Mississippi average hourly wage for manufacturing</b><br>Seasonally adjusted; 2004 dollars. Source: U.S. Bureau of Labor Statistics   | 20.50        | 20.08         | 20.95        | ▲2.1%   | ▼2.1%  |   |
| <b>Mississippi average weekly earnings for manufacturing</b><br>Seasonally adjusted; 2004 dollars. Source: U.S. Bureau of Labor Statistics   | 833.09       | 834.17        | 882.11       | ▼0.1%   | ▼5.6%  |   |
| <b>NFIB Small Business Optimism Index</b><br>1986 = 100. Source: National Federation of Independent Businesses   | 106.9        | 104.9         | 105.9        | ▲1.9%   | ▲0.9%  |   |
| <b>U.S. total light vehicle sales</b><br>Millions of units seasonally adjusted at annual rates.<br>Source: U.S. Bureau of Economic Analysis  | 16.96        | 17.07         | 17.33        | ▼0.6%   | ▼2.1%  |   |
| <b>Gaming revenue</b>  | 119.0        | 138.5         | 134.1        | ▼14.1%  | ▼11.3% |   |
| <b>Coastal counties</b>  | 70.6         | 80.8          | 78.1         | ▼12.6%  | ▼9.6%  |   |
| <b>River counties</b><br>Seasonally adjusted; millions of 2004 dollars. Source: Mississippi Department of Revenue  | 48.3         | 57.7          | 56.0         | ▼16.2%  | ▼13.6% |   |

## MISSISSIPPI EMPLOYMENT TRENDS

The U.S. Bureau of Labor Statistics (BLS) completed its annual benchmark revisions to regional and state unemployment data earlier this month. Following these revisions average monthly employment in Mississippi in 2017 was higher by 5,700 jobs compared to 2016. Annual employment in the state increased 0.5 percent in 2017, the smallest increase since 2011 when employment did not change.

As seen in Table 2 January total nonfarm employment in Mississippi increased 0.1 percent according to BLS, an increase of 600 jobs. However, December employment was revised lower. Nevertheless, it remained the first month the level of employment in the state exceeded the pre-recession peak of February 2008. Total employment in Mississippi was 1.1 percent higher in January compared to one year ago.

BLS reported California, New Jersey, and Maryland experienced statistically significant increases in total nonfarm employment in January. North Dakota was the only state with a statistically significant decrease in employment according to BLS. Employment increased in twenty-one states compared to one year ago in January as California added the most jobs, while the largest percentage increase in employment for the month occurred in Utah.

The largest increase in employment among all industries in the state in January occurred in Construction, Retail Trade, Accommodation and Food Services, and Government, as all of these sectors each added 600 jobs. The largest percentage increase in employment occurred in Construction, which rose 1.4 percent. The largest decline in employment for the month occurred in Manufacturing, which lost 1,200 jobs. Information experienced the largest percentage decline in employment in January of 1.8 percent. Employment in Arts and Entertainment did not change.

The largest increase in employment among all sectors in the state in January compared to one year ago was in Professional and Business Services, which added 4,600 jobs. The next largest increase was in Health Care and Social Assistance, which added 3,200 jobs. Educational Services experienced the largest percentage increase in employment among all industries in the state over the past twelve months of 5.9 percent. The largest decline in employment for the month compared to one year ago was in Retail Trade, which was lower by 1,100 jobs. The largest percentage decrease in employment compared to one year ago was in Mining and Logging, which fell 5.6 percent, a loss of 400 jobs.

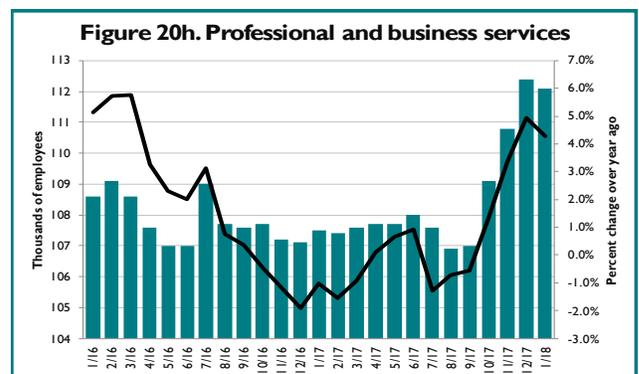
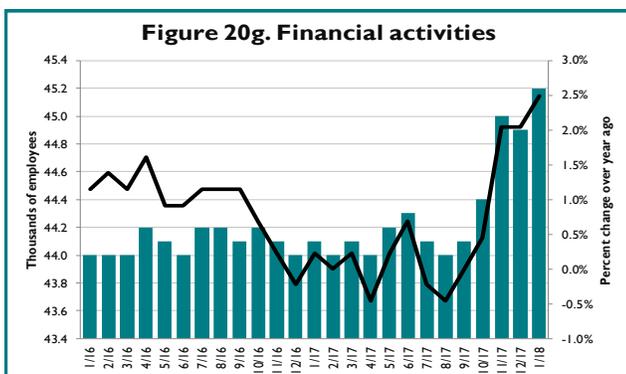
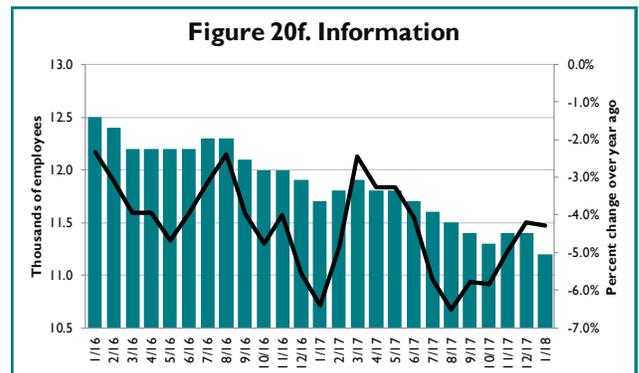
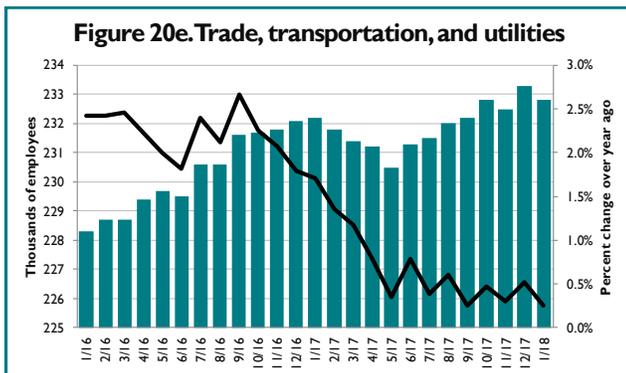
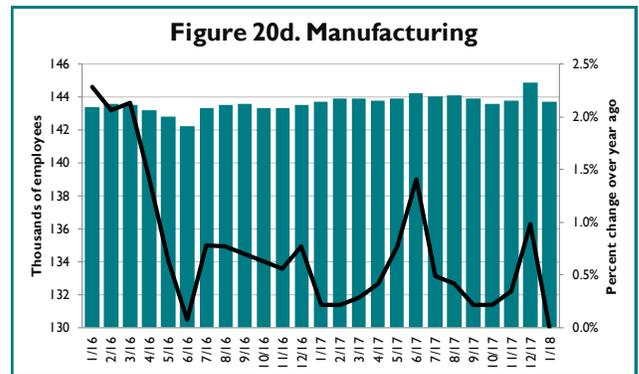
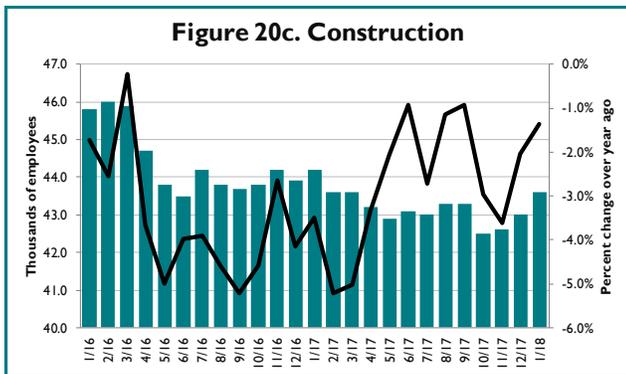
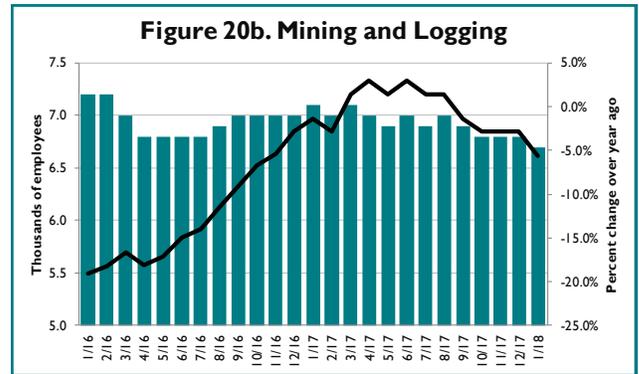
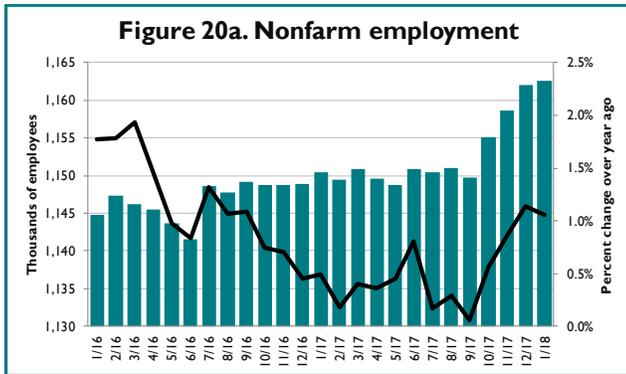
**Table 2. Change in Mississippi employment by industry, January 2018**

|                                    | Relative share of total <sup>a</sup> | January 2018 | December 2018 | January 2017 | Change from December 2017 |         | Change from January 2017 |         |
|------------------------------------|--------------------------------------|--------------|---------------|--------------|---------------------------|---------|--------------------------|---------|
|                                    |                                      |              |               |              | Level                     | Percent | Level                    | Percent |
| Total Nonfarm                      | 100.0%                               | 1,162,600    | 1,162,000     | 1,150,400    | ▲600                      | ▲0.1%   | ▲12,200                  | ▲1.1%   |
| Mining and Logging                 | 0.6%                                 | 6,700        | 6,800         | 7,100        | ▼100                      | ▼1.5%   | ▼400                     | ▼5.6%   |
| Construction                       | 3.7%                                 | 43,600       | 43,000        | 44,200       | ▲600                      | ▲1.4%   | ▼600                     | ▼1.4%   |
| Manufacturing                      | 12.5%                                | 143,700      | 144,900       | 143,700      | ▼1,200                    | ▼0.8%   | ◀0                       | ◀0.0%   |
| Trade, Transportation, & Utilities | 20.1%                                | 232,800      | 233,300       | 232,200      | ▼500                      | ▼0.2%   | ▲600                     | ▲0.3%   |
| Retail Trade                       | 12.2%                                | 140,500      | 139,900       | 141,600      | ▲600                      | ▲0.4%   | ▼1,100                   | ▼0.8%   |
| Information                        | 1.0%                                 | 11,200       | 11,400        | 11,700       | ▼200                      | ▼1.8%   | ▼500                     | ▼4.3%   |
| Financial Activities               | 3.8%                                 | 45,200       | 44,900        | 44,100       | ▲300                      | ▲0.7%   | ▲1,100                   | ▲2.5%   |
| Services                           | 37.2%                                | 435,700      | 434,600       | 424,400      | ▲1,100                    | ▲0.3%   | ▲11,300                  | ▲2.7%   |
| Professional & Business Services   | 9.4%                                 | 112,100      | 112,400       | 107,500      | ▼300                      | ▼0.3%   | ▲4,600                   | ▲4.3%   |
| Educational Services               | 1.1%                                 | 12,600       | 12,500        | 11,900       | ▲100                      | ▲0.8%   | ▲700                     | ▲5.9%   |
| Health Care & Social Assistance    | 11.5%                                | 133,500      | 133,200       | 130,300      | ▲300                      | ▲0.2%   | ▲3,200                   | ▲2.5%   |
| Arts & Entertainment               | 0.8%                                 | 9,500        | 9,500         | 9,600        | ◀0                        | ◀0.0%   | ▼100                     | ▼1.0%   |
| Accommodation and Food Services    | 10.9%                                | 127,500      | 126,900       | 124,800      | ▲600                      | ▲0.5%   | ▲2,700                   | ▲2.2%   |
| Other Services                     | 3.5%                                 | 40,500       | 40,100        | 40,300       | ▲400                      | ▲1.0%   | ▲200                     | ▲0.5%   |
| Government                         | 21.1%                                | 243,700      | 243,100       | 243,000      | ▲600                      | ▲0.2%   | ▲700                     | ▲0.3%   |

<sup>a</sup>Relative shares are for the most recent twelve-month average. Source: U.S. Bureau of Labor Statistics, Current Employment Statistics

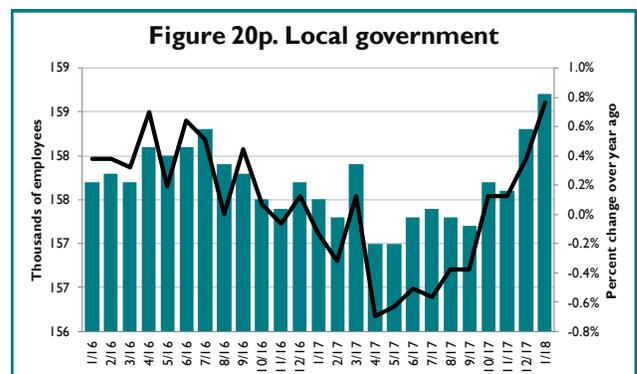
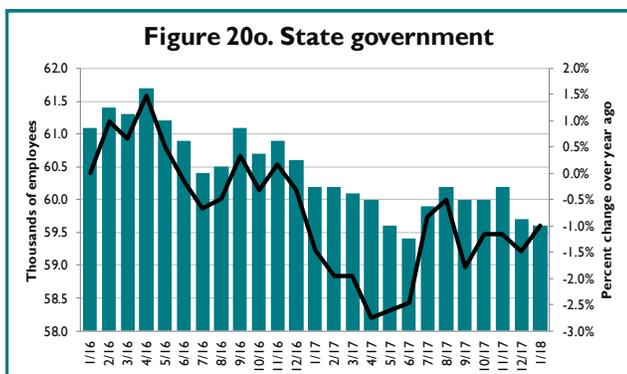
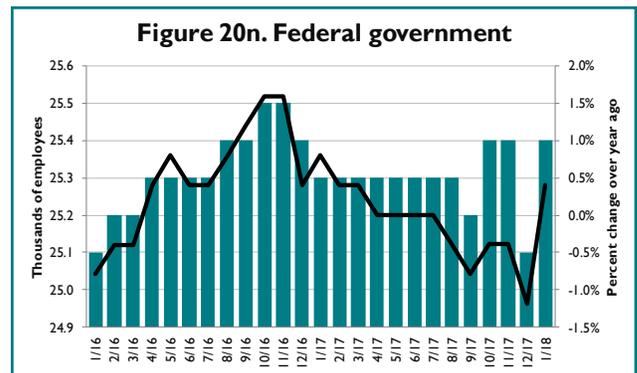
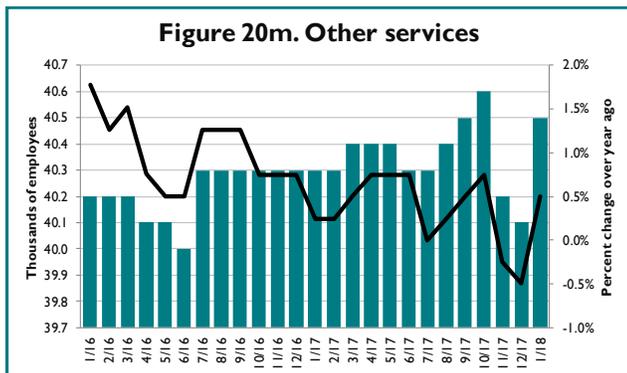
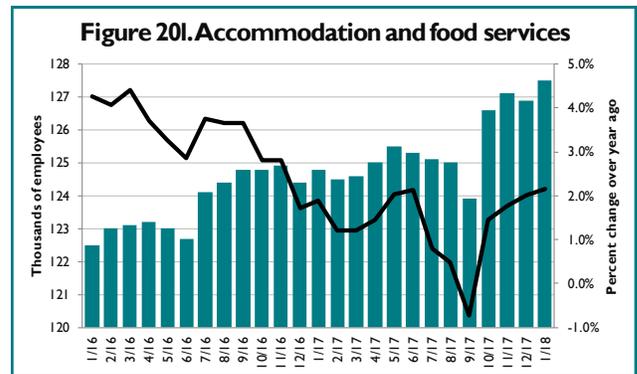
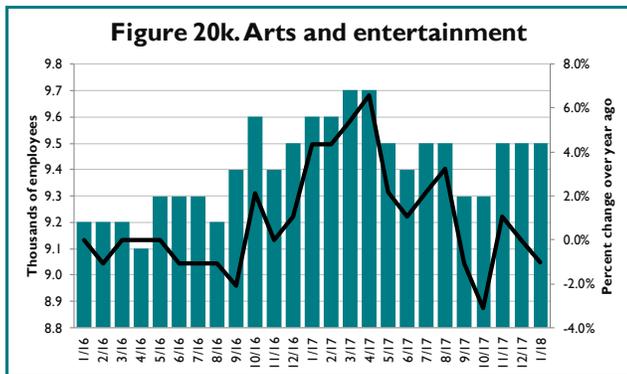
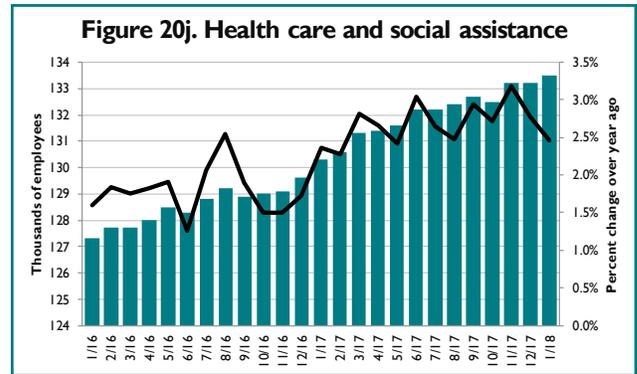
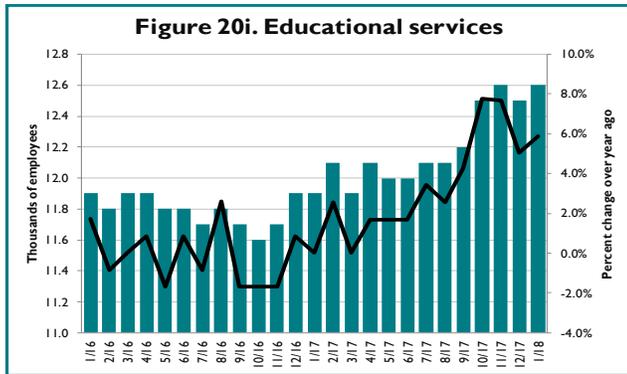
MISSISSIPPI'S BUSINESS

MISSISSIPPI EMPLOYMENT TRENDS BY SECTOR, IN FIGURES



Source: U.S. Bureau of Labor Statistics (all figures); seasonally adjusted

# MISSISSIPPI EMPLOYMENT TRENDS BY SECTOR, IN FIGURES (CONTINUED)



Source: U.S. Bureau of Labor Statistics (all figures); seasonally adjusted

## WHAT HAVE RESEARCHERS LEARNED ABOUT SCHOOL CHOICE?

School choice as a public policy issue has made headlines in Mississippi and across the country in recent months. The specific policy of universal school choice continues to receive the most focus in public policy debates in the state. Generally universal school choice refers to some arrangement whereby public school students can attend the private school of their family's choosing through the use of public funds. Since the fall of 2015, Mississippi has enabled this form of school choice for students with special needs or dyslexia. While universal school choice has both its advocates and detractors, the effects of implementing such a program on a larger scale in the state remain unclear. This article examines recent research literature in economics and other fields about the impacts of school choice on student achievement and considers the implications of these findings for Mississippi.

The oldest program of its type in the U.S. is the Milwaukee Parental Choice Program, which began as a pilot program in 1990 and has gradually expanded participation in the years since, reaching almost 29,000 students in 2017. The program provides low-income parents with a specific amount of money in order for their children to attend participating private schools, including religious-based schools. As the largest and oldest program of its type in the U.S., the Milwaukee program is also one of the most analyzed. In terms of student attainment, the bulk of the literature investigating the Milwaukee program appears to indicate the gains have been relatively small. In a comprehensive review of the economic literature on school choice programs in the U.S. and other countries, Epple, Romano, and Urquiola (2017) note studies find Milwaukee's program "had little, if any, effect on test scores." Cowen et. al (2013), in their study of the Milwaukee program and student attainment, state the students who entered the program prior to or at the beginning of high school were more likely to graduate as well as attend college. However, the authors also conclude: "If policy-makers should interpret these results as evidence that voucher students are performing slightly better on one metric—attaining a given level of education—the results nonetheless *do not* support a comprehensive conclusion that the Milwaukee voucher program necessarily provides a better learning environment than its public school counterpart." In their examination of school voucher programs that includes Milwaukee, Barrow and Rouse (2008) conclude, "The best research to date finds relatively small achievement gains for students offered education vouchers. . ."

Some of the most interesting results found are those for the District of Columbia Opportunity Scholarship Program, which began in 2004 and is the only federal program of its kind in the U.S. The program is relatively small as around 3,900 students participated in 2016. The evaluation of Wolf et al. (2013) revealed relatively small gains in terms of test scores for students who participated in the program for at least four years. Yet the authors also found statistically significant and relatively large gains in high school graduation rates among participants.

In contrast to the findings for the programs in Milwaukee and Washington, DC, which suggest mixed results and relatively small gains in student achievement, recent research on the Louisiana Scholarship Program indicates reductions in performance among participating students. The Louisiana Scholarship Program began in New Orleans in 2008, expanded statewide in 2012, and almost 7,000 students participated in 2016. In their analysis, Abdulkadiroğlu, Pathak, and Walters (2018) conclude that the Louisiana Scholarship Program, ". . . reduces academic achievement one year after program entry, lowering mean test scores and increasing the likelihood of failure in math, reading, science, and social studies." The authors note their investigation used data from 2012, the first year the program expanded statewide, which may mean the negative results were generated in part by the inexperience of participating schools. However, they also note their research ". . . suggests that low-quality private schools may be disproportionately likely to opt into the LSP." An analysis by Mills and Wolf (2017) of the effects of the Louisiana Scholarship Program on student achievement after three years finds small increases in test scores in English language arts and decreases in test scores for math, but neither result was statistically significant. Thus, while taken together the results of Abdulkadiroğlu, Pathak, and Walters (2018) and Mills and Wolf (2017) indicate potential improvement in the effects of the program over time, the latter authors declare that after three years, ". . . we cannot reject the null hypothesis that the average test scores of LSP students and their control group peers are statistically similar."

## WHAT HAVE RESEARCHERS LEARNED ABOUT SCHOOL CHOICE?

What accounts for the relatively small effects of school choice on student achievement, as well as the divergence in the findings of the literature cited above? Barrow and Rouse (2008) note the challenge of controlling for the effects of individual characteristics of students who participate in school choice programs compared to those who do not; Epple, Romano, and Urquiola (2017) refer to similar literature. For example, if the students who apply to participate in a program are more motivated already, then these characteristics could affect the results of a comparative study. The latter authors also note the difficulties in comparing research results across studies because of differences in study designs. Other empirical challenges include the design of individual school choice programs. For example, if a voucher system excludes parochial schools from participation, research findings on student achievement may not be comparable to voucher systems where such schools are eligible. Relatedly, small-scale programs with regard to number of students and schools participating may differ in their impacts on student achievement from large-scale programs, and the scaling up of any particular program may affect its outcomes.

What implications does the school choice experience in other states have for Mississippi? Answering this question with any degree of confidence is difficult and may not be possible. As Epple, Romano, and Urquiola note, the use of a single study or methodology will not completely address such a question. Moreover, most of the studies of voucher programs concern those in relatively large metro areas and/or states such as Milwaukee, Washington, DC, and New Orleans; in contrast, Mississippi lacks a comparable metro area. Other differences include the composition of private school alternatives in the state compared to other states. For example, in Mississippi, data indicate only 14 percent of all private schools in the state are Catholic schools. In Wisconsin, data indicate 34 percent of all private schools are Catholic, while Catholic schools constitute around 45 percent of all private schools in Louisiana.

The preceding discussion should not dismiss the potential of school choice to improve the educational outcomes of some groups. Indeed, for students in poor and/or dangerous school systems, an option such as vouchers or charter schools is essentially guaranteed to change their situation for the better. Studies also indicate African-American students in particular can benefit from school choice programs. At the same time, however, research in the aggregate signals expectations for school choice outcomes should be tempered. As the preceding discussion of research indicates, school choice programs are in fact quite complex and more experimentation in terms of design and structure is needed in order to improve the results for more students. Impacts beyond student achievement require more investigation as well.

### FOR FURTHER READING:

Abdulkadiroğlu, Atila, Parag A. Pathak, and Christopher R. Walters. 2018. "Free to Choose: Can School Choice Reduce Student Achievement?" *American Economic Journal: Applied Economics*, 10(1): 175-206.

Barrow, L., and Rouse, C.E., 2008. "School Vouchers: Recent Findings and Unanswered Questions." *Economic Perspectives*, (Q III): 2-16.

Cowen, J.M., Fleming, D.J., Witte, J.F., Wolf, P.J., and Kisida, B. 2013. "School Vouchers and Student Attainment: Evidence from a State-Mandated Study of Milwaukee's Parental Choice Program." *Policy Studies Journal*, 41(1):147-168.

Epple, D., Romano, R.E., and Urquiola, M. 2017. "School Vouchers: A Survey of the Economics Literature." *Journal of Economic Literature*, 55(2): 441-92.

Mills, J.N., and Wolf, P.J. 2017. "The Effects of the Louisiana Scholarship Program on Student Achievement After Three Years." In *5th International Academic Conference on School Choice and Reform*: Honolulu.

Wolf, P.J., Kisida, B., Gutmann, B., Puma, M., Eissa, N., and Rizzo, L. 2013. School Vouchers and Student Outcomes: Experimental Evidence from Washington, DC. *Journal of Policy Analysis and Management*, 32(2): 246-270.

MISSISSIPPI'S BUSINESS

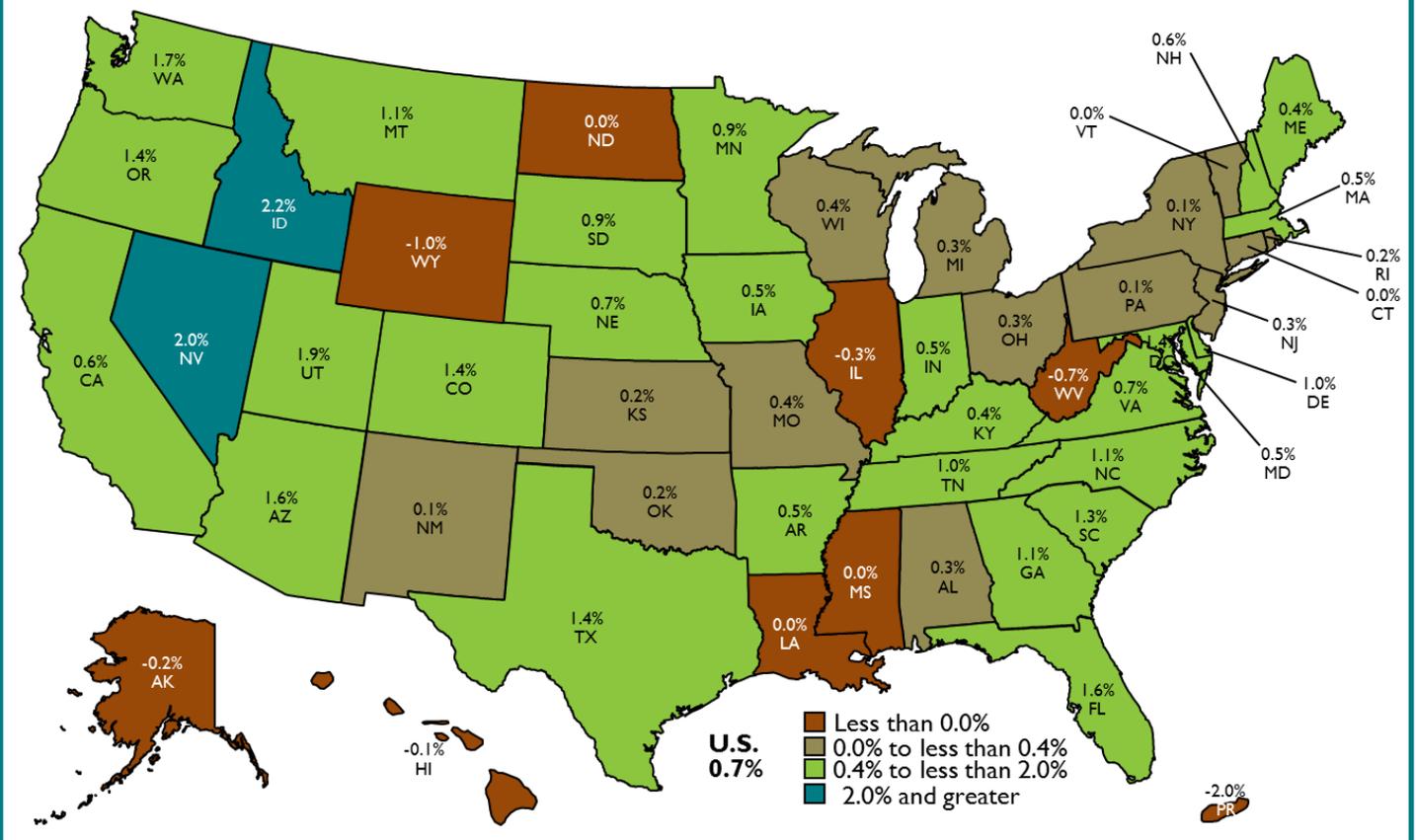
MISSISSIPPI POPULATION TRENDS

According to the latest data from the U.S. Census Bureau, Mississippi's population decreased 0.04 percent between 2016 and 2017, which represented a loss of 1,315 individuals. The Census Bureau reported the number of births in Mississippi between 2016 and 2017 exceeded the number of deaths in the state by about 6,500. Net international migration added almost 2,100 residents. However, these gains were more than offset by the decrease in net domestic migration of almost 9,900 people. Revised data indicate the decline was the first since 2015, but the state's total population is down 0.11 percent since 2014.

Mississippi was one of eight states that experienced a decline in population in 2017 as seen in Figure 21 below. The largest decrease occurred in Illinois, which lost just under 34,000 people. The largest percentage decline occurred in Wyoming, where the population fell 1.0 percent. Louisiana was the only other southeastern state to lose population between 2016 and 2017, as its population also fell 0.04 percent, a loss of 1,824 individuals.

The largest percentage population increase in in the U.S. between 2016 and 2017 occurred in Idaho, as the state's population rose by 2.2 percent. Texas added the most residents between 2016 and 2017, as its total population increased by almost 400,000 people. The most populous state remained California, which added just over 240,000 individuals between 2016 and 2017. The state's total population is approximately 39.5 million people, and over 12 percent of the U.S. population resides in California. The Census Bureau reported 38 percent of the U.S. population lived in the South in 2017, although the agency defines the region as consisting of sixteen states and the District of Columbia.

Figure 21. Percent change in population by state, 2016-2017



Source: URC calculations from Bureau of the Census, Vintage 2017 Population Estimates