

Monitoring the state's economy

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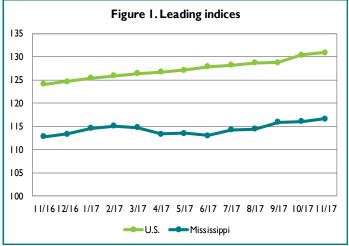
JANUARY 2018

ECONOMY AT A GLANCE

n November the value of the Mississippi Leading Index (MLI) increased 0.5 percent as seen in Figure I below. The value of the MLI was 3.4 percent higher for the month compared to one year ago.

Figure 2 indicates the value of the Mississippi Coincident Index (MCI) increased 0.3 percent in November. Compared to one year ago this value was 2.6 percent higher for the month.

In its third estimate the U.S. Bureau of Economic Analysis (BEA) reported in late December U.S. real gross domestic product (GDP) increased 3.2 percent in the third quarter. BEA revised this estimate down by 0.1 percentage point from its second estimate. This calculation was reduced slightly because of lower personal consumption expenditures than previously measured. Combined with BEA's

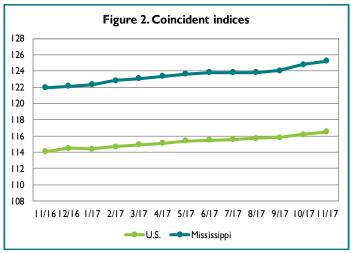




Notes: The Mississippi Coincident Index is constructed by the Federal Reserve Bank of Philadelphia and re-indexed to 2004. The Index is based on changes in nonfarm employment, the unemployment rate, average manufacturing workweek length, and wage and salary disbursements. The Mississippi Leading Index 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.

Follow the University Research Center on Twitter: @MississippiURC second quarter estimate of a 3.1 percent increase, real GDP grew by more than 3.0 percent in at least half of 2017. Many economists expect real GDP in the fourth quarter also grew at or near 3.0 percent.

The MLI increased in November, largely on the strength of national measures. However, withholdings increased for the second consecutive month for the first time since February. Building permits continued to slowly edge higher after declining for much of 2017. Unemployment claims remained relatively low and continue to trend downward. Furthermore, employment growth improved in the past two months and total employment in Mississippi is approaching its pre-recession level. Thus, November marked a relatively solid month for the state's economy as a result of incremental improvements to several indicators.



Sources: Federal Reserve Bank of Philadelphia and The Conference Board

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MISSISSIPPI LEADING INDEX, NOVEMBER 2017

As seen in Figure 3 the value of the Mississippi Leading Index of Economic Indicators (MLI) increased 0.5 percent in November. Compared to one year ago the value of the MLI was 3.4 percent higher for the month. Over the last six months the value of the MLI increased 2.8 percent.

As in the previous month five of the seven components of the MLI increased in value in November. The largest contributors were retail sales and the ISM Manufacturing Index. Each component is discussed below in order of largest to smallest contribution.

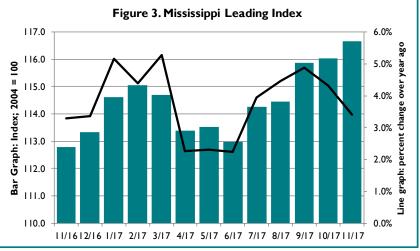
U.S. retail sales rose 0.8 percent in value in November as seen in Figure 4. Moreover, the values of the previous two months were re-

vised higher. As a result retail sales are up 3.8 percent over the last six months. Compared to one year ago the value of November U.S. retail sales was 5.5 percent higher. Retail sales excluding automobiles increased 1.0 percent, as the latter was the only component to decline in November. The largest increase occurred at gasoline stations, closely followed by nonstore retailers. Sales at general merchandisers did not change.

Figure 5 indicates the value of the **Institute for Supply Management Index of U.S. Manufacturing Activity** rose 2.6 percent in December after declining in each of the previous two months. The value of the Index was 9.1 percent higher for the month compared to one year ago. The largest increase among the components of the Index occurred in New Orders while the only component to decrease was Employment, despite the fact only two of the eighteen sectors tracked by the Index reported declines in employment in December.

For the second consecutive month, the value of **Missis**sippi income tax withholdings (three-month moving average) increased in November as seen in Figure 6. The value rose 0.7 percent from the previous month and was 1.2 percent higher compared to one year ago. The value declined 0.2 percent over the last six months.

The value of **Mississippi residential building permits** (three-month moving average) increased 1.0 percent in value in November as Figure 7 indicates, the second consecutive monthly increase. This increase notwithstanding, the value for November compared to one year ago was 6.8 percent lower, the first year-over-year decline since October 2016. In contrast, the seasonally-adjusted num-



Source: University Research Center

ber of units for which building permits were issued (three -month moving average) in Mississippi fell 2.0 percent in November. The number of units for the month was 17.6 percent lower compared to one year ago. The number of privately-owned housing units in the U.S. authorized by building permits was 1.4 percent lower in November from the revised October value. The number of units in the U.S. in November was 3.4 percent higher compared to one year ago.

Figure 8 indicates the value of seasonally-adjusted **initial unemployment claims** in Mississippi decreased 1.0 percent in November. The value for the month was 21.9 percent lower compared to one year ago. Similarly, the value of seasonally-adjusted continued unemployment claims in Mississippi fell 5.9 percent in November as seen in Figure 14 on page 6. The number of continued claims in Mississippi was 18.2 percent lower in November compared to one year ago. As seen in Figure 15 on page 6 the seasonally-adjusted unemployment rate in Mississippi fell 0.1 percentage point to 4.8 percent in November, the lowest monthly rate since BLS began reporting state unemployment rates in 1976. The rate was 0.8 percentage point lower for the month compared to one year ago.

The value of the **University of Michigan Index of Consumer Expectations** (three-month moving average) was essentially unchanged in November as seen in Figure 9. The value of the Index was 4.9 percent higher in November compared to one year ago. Tax reform legislation affected responses in the latest survey as almost 30 percent of respondents mentioned it unprompted. In the

ago

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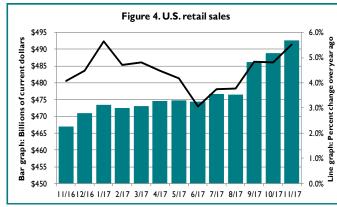
Percent

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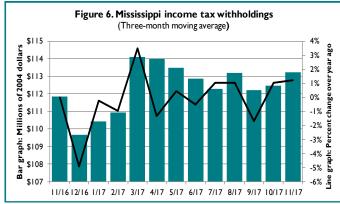
Line

-10%

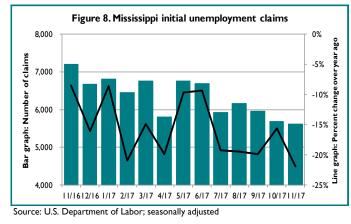
COMPONENTS OF MISSISSIPPI LEADING INDEX, IN FIGURES

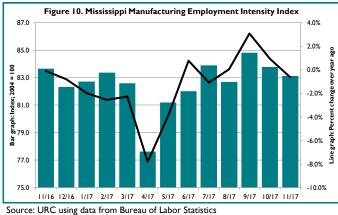


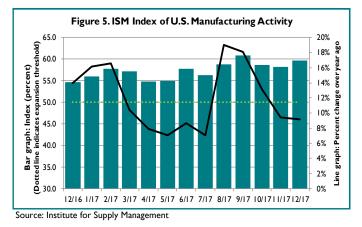
Source: Bureau of the Census

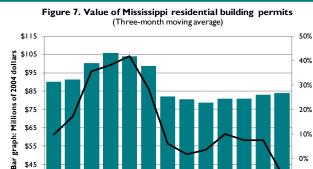


Source: Mississippi Department of Revenue; seasonally adjusted





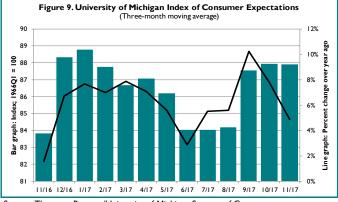




Source: Bureau of the Census; seasonally adjusted

\$45

\$35



11/1612/16 1/17 2/17 3/17 4/17 5/17 6/17 7/17 8/17 9/17 10/1711/17

Source: Thomson Reuters/University of Michigan Surveys of Consumers

In November the value of the Mississippi Leading Index (MLI) increased 0.5 percent.

MISSISSIPPI LEADING INDEX, NOVEMBER 2017 (CONTINUED)

most recent survey short-term inflation expectations increased while long-term expectations remained unchanged.

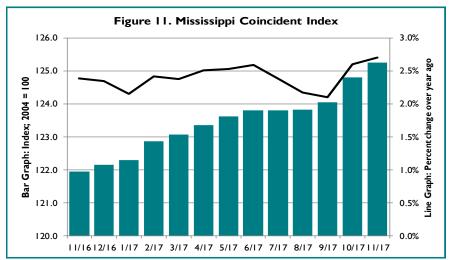
As seen in Figure 10 the **Mississippi Manufacturing Employment Intensity Index** fell 0.8 percent in value in November, its second consecutive monthly decline. Similarly, the value for the month was down 0.6 percent compared to one year ago. Manufacturing employment in Mississippi did not change in November, while the average weekly hours of production employees declined 0.8 percent for the month.

MISSISSIPPI COINCIDENT INDEX, NOVEMBER 2017

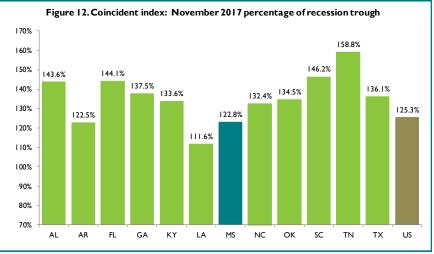
As seen in Figure 11 the value of the Mississippi Coincident Index of Economic Indicators (MCI) increased 0.3 percent in November according to the Federal Reserve Bank of Philadelphia. The value of the MCI for the month was 2.6 percent higher compared to one year ago.

Figure 12 indicates the coincident index for Louisiana maintained the smallest increase in value from its recession trough among southeastern states in November. This increase was only 11.6 percent. However, the second-smallest increase in the value of the coincident index among southeastern states as of November occurred in Arkansas, up 22.5 percent. The increase in the value of the coincident index for Mississippi was the next highest at 22.8 percent.

In forty-three states the values of the coincident indices increased in November compared to three months prior as seen in Figure 13 on page 5. In thirty-seven states including Mississippi the values of the coincident indices increased more than 0.5 percent compared to three months prior. In six states the values of the coincident indices increased by less than 0.5 percent. The values of coincident indices declined between 0.0 and 0.5 percent in November compared to August in three states. As in October, the coincident indices for Alaska, Michigan, North Dakota, and South Dakota all declined in value by more than 0.5 percent in November compared to three months prior.



Source: Federal Reserve Bank of Philadelphia





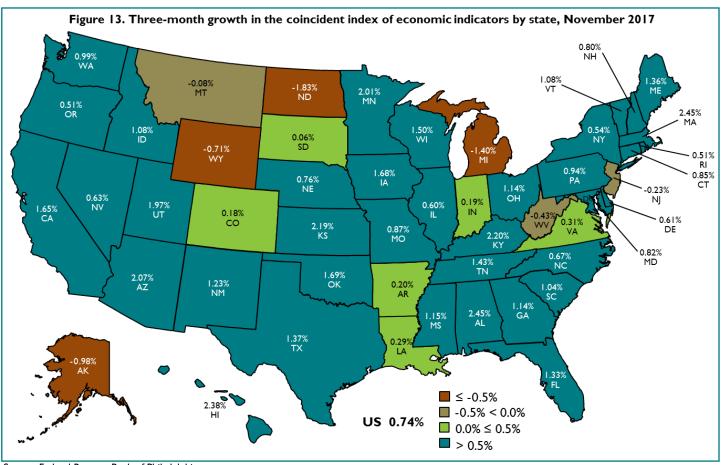
NATIONAL TRENDS

As seen in Figure I on page I the value of the U.S. Leading Economic Index (LEI) climbed 0.4 percent in October according to The Conference Board. The value of the LEI was 5.5 percent higher in November compared to one year ago, the largest year-over-year increase since April 2015. Six of the ten components of the LEI increased in value in November and the largest contribution came from the ISM New Orders Index. Over the last six months the value of the LEI rose 3.0 percent.

The value of the U.S. Coincident Economic Index (CEI) increased 0.3 percent in November according to The Conference Board and as seen in Figure 2 on page 1. For the month the value of the CEI was 2.1 percent higher compared to one year ago. All four components of the CEI increased in November and the largest contribution came from employees on nonagricultural payrolls.

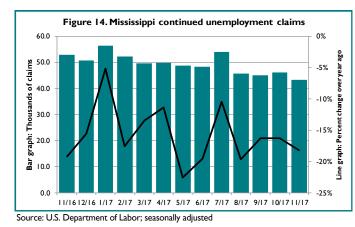
The value of the National Federation of Independent Businesses (NFIB) Small Business Optimism Index surged in November as seen in Figure 20 on page 6, reaching an alltime high since the Index began in 1986. The value of the Index rose 3.6 percent for the month and compared to one year ago was 9.2 percent higher in November. The increase was likely driven by a better outlook for passage of tax reform legislation. The largest gains occurred in the "expect economy to improve" and "expect real sales higher" components. The "current job openings" component gave back its gain from the previous month.

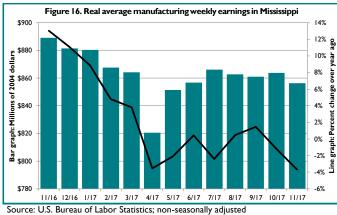
As expected the Federal Open Market Committee (FOMC) raised its federal funds rate target by 0.25 basis points at its December meeting. It marked the third increase of 2017 and placed the rate at a range of 1.25 percent to 1.50 percent. The Fed has penciled in three rate increases for 2018 as well, despite the departure of Janet Yellen as chair in early February. President Trump is expected to resubmit the nomination of current Fed Governor Jerome Powell to become the next Fed Chair, as the 2017 session ended in December without a Senate vote on the nomination. Nevertheless, Powell is expected to easily win confirmation from the full Senate and to largely continue the policies of Yellen at the Federal Reserve.

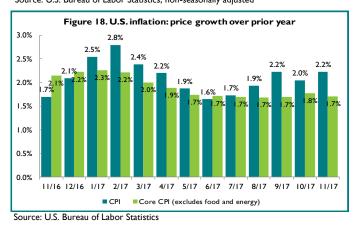


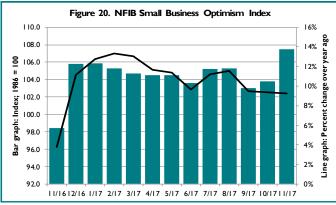
Source: Federal Reserve Bank of Philadelphia

MISCELLANEOUS ECONOMIC INDICATORS, IN FIGURES

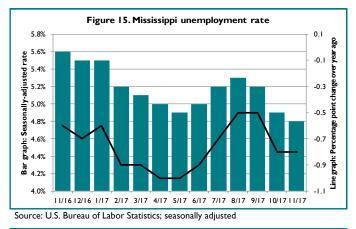


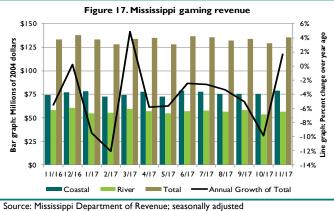


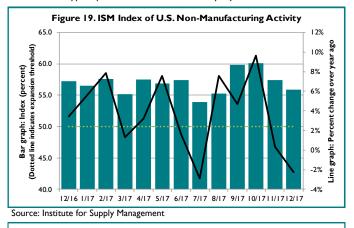


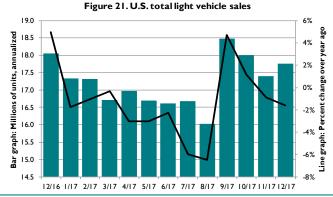


Source: National Federation of Independent Businesses









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

TABLE I. SELECTED ECONOMIC INDICATORS

Indiastau	November	October N	November	Percent change from			
Indicator	2017	2017	2016 Oct	ober 2017 Nove	mber 2016		
U.S. Leading Economic Index 2004 = 100. Source: The Conference Board	130.9	130.4	124.1	▲0.4 %	▲5.5%	ses	
U.S. Coincident Economic Index 2004 = 100. Source: The Conference Board	116.5	116.2	114.1	▲0.3 %	▲2.1%	ic India	
Mississippi Leading Index 2004 = 100. Source: University Research Center	116.7	116.0	112.8	▲ 0.5%	▲3.4%	Economic Indices	
Mississippi Coincident Index 2004 = 100. Source: Federal Reserve Bank of Philadelphia	125.2	124.8	122.0	▲0.3%	▲2.6 %	Щ	
Mississippi initial unemployment claims Seasonally adjusted. Source: U.S. Department of Labor	5,634	5,691	7,215	▼1.0%	₩21.9%	ndex	
Value of Mississippi residential building permits Three-month moving average; seasonally adjusted; millions of 2004 dollars. Source: Bureau of the Census	83.9	83.1	90.0	▲1.0%	▼6.8 %	of the Mississippi Leading Index	
Mississippi income tax withholdings Three-month moving average; seasonally adjusted; millions of 2004 dollars. Source: Mississippi Department of Revenue	113.2	112.5	111.9	▲0.7%	▲ 1.2%	issippi L	
Mississippi Manufacturing Employment Intensity Index 2004 = 100. Source: URC using data from U.S. Bureau of Labor Statistics	83.1	83.8	83.7	▼0.8 %	▼0.6 %	e Miss	
University of Michigan Index of Consumer Expectations Three-month moving average; index 1966Q1 = 100. Source: Thomson Reuters/University of Michigan Surveys of Consumers	s 87.9	87.5	81.6	▲0.5%	▲7.8 %	ents of th	
ISM Index of U.S. Manufacturing Activity Advanced one month. Source: Institute for Supply Management	59.7	58.2	54.7	▲2.6%	▲9. 1%	Components	
U.S. retail sales Current dollars, in billions. Source: Bureau of the Census	492.7	488.9	467.0	▲0.8 %	▲5.5%	ŝ	
U.S. Consumer Price Index (CPI)	131.1	130.6	128.2	^0.4 %	▲ 2.2%		
U.S. Core CPI (excludes food and energy) 2004 = 100. Source: URC using data from Bureau of Labor Statistics	129.0	128.9	126.9	▲0.1%	▲1.7%		
Mississippi unemployment rate Percentage point change. Seasonally-adjusted. Source: U.S. Bureau of Labor Statistics	4.8%	4.9%	5.6%	▼0. 1%	▼0.8 %		
Mississippi continued unemployment claims Seasonally adjusted. Source: U.S. Department of Labor	43,370	46,089	52,995	▼5.9%	▼18.2%		
ISM Index of U.S. Non-Manufacturing Activity Advanced one month. Source: Institute for Supply Management	55.9	57.4	57.2	₩2.6 %	▼ 2.3%	Indicators	
U.S. mortgage rates Percentage point change. Seasonally adjusted; 30-year conventional. Source: Federal Home Loan Mortgage Corporation	3.9 1%	4.01%	3.75%	▼ 0.11	▲0.15	· - ·	
Mississippi average hourly wage for manufacturing Seasonally adjusted; 2004 dollars. Source: U.S. Bureau of Labor Statistics	20.52	20.60	21.13	▼0.4 %	₹2.9 %	Miscellaneous	
Mississippi average weekly earnings for manufacturing Seasonally adjusted; 2004 dollars. Source: U.S. Bureau of Labor Statistics	856.27	863.64	889.01	▼0.9 %	▼3.7%	Mis	
NFIB Small Business Optimism Index 1986 = 100. Source: National Federation of Independent Businesses	107.5	103.8	98.4	▲3.6%	▲9.2 %		
U.S. total light vehicle sales Millions of units seasonally adjusted at annual rates. Source: U.S. Bureau of Economic Analysis	17.76	17.40	18.05	▲2.1%	▼1.6 %		
Gaming revenue	135.5	129.2	133.2	▲4.9%	▲ 1.7%		
Coastal counties	79.0	75.4	74.7	▲ 4.8%	▲ 5.8%		
River counties Seasonally adjusted; millions of 2004 dollars. Source: Mississippi Department of R	56.5 evenue	53.9	58.5	▲5.0%	▼3.4%		

MISSISSIPPI EMPLOYMENT TRENDS

n November total nonfarm employment in Mississippi increased 0.3 percent according to the U.S. Bureau of Labor Statistics (BLS). As seen in Table 2 below, employment climbed by 3,400 jobs, resulting in the highest level of employment in the state since February 2008, the prerecession peak. Total employment in Mississippi was 1.1 percent higher in November compared to one year ago.

Six states experienced statistically significant increases in total nonfarm employment in November according to BLS. Texas, California, and New York experienced the largest gains while the largest percentage increases occurred in Iowa, South Carolina, and Texas. Alaska and North Dakota were the only states that experienced a statistically significant decrease in jobs in November.

Compared to one year ago employment increased in twenty-seven states in November. As in October Texas, California, and Florida added the most jobs over the past year. The largest percentage increases occurred in Utah followed by Nevada and Texas. For the fifth consecutive month no state experienced a statistically significant decrease in employment over the previous year. The largest increase in employment among all industries in the state in November occurred in Professional and Business Services, which added 2,800 jobs. The sector also experienced the largest percentage increase of 2.7 percent. The largest declines in employment for the month occurred in Retail Trade, which lost 1,300 jobs. The subsector also experienced the largest percentage decline in employment of 0.9 percent.

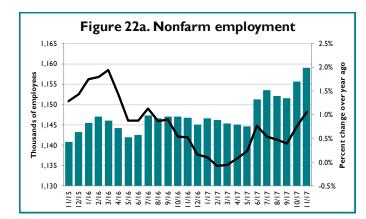
The largest increase in employment among all sectors in the state in November compared to one year ago was in Health Care and Social Assistance, which added 3,700 jobs. The next largest increase was in Professional and Business Services, which added 2,600 jobs. Arts and Entertainment once again experienced the largest percentage increase in employment among all industries in the state over the past twelve months as it rose 13.9 percent. The largest decline in employment for the month compared to one year ago was in Retail Trade, down by 800 jobs. The largest percentage decrease in employment compared to one year ago was in the Information sector, which fell 4.2 percent, a 500-job decline.

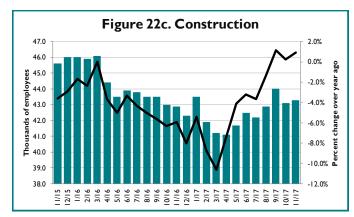
	Relative share of total ^a	November 2017	October I 2017	November 2016		nge from ber 2017 Percent	Novem	ge from ber 2016 Percent
Total Nonfarm	100.0%	1,159,000	1,155,600	1,146,800	▲3,400	▲ 0.3%	▲12,200	▲ . %
Mining and Logging	0.6%	6,900	6,900	6,700	€0	♦ 0.0%	▲ 200	▲3.0%
Construction	3.7%	43,300	43,100	42,900	^ 200	▲ 0.5%	4 00	▲ 0.9%
Manufacturing	12.4%	143,500	143,500	142,600	€0	♦ 0.0%	▲ 900	▲0.6%
Trade, Transportation, & Utilities	20.2%	232,200	233,500	230,200	▼ 1,300	▼ 0.6%	^ 2,000	▲ 0.9%
Retail Trade	12.1%	138,300	139,600	139,100	▼ 1,300	▼ 0.9%	▼ 800	▼ 0.6%
Information	۱.0%	11,300	11,300	11,800	♦ 0	♦ 0.0%	↓ 500	▼ 4.2%
Financial Activities	3.8%	44,800	44,200	43,300	▲600	▲ I.4%	▲ 1,500	▲3.5%
Services	36.6%	432,100	428,500	424,100	▲3,600	▲ 0.8%	▲8,000	▲ 1.9%
Professional & Business Services	9.2%	108,200	105,400	105,600	^ 2,800	▲ 2.7%	^ 2,600	▲ 2.5%
Educational Services	1.1%	12,700	12,500	12,000	^ 200	▲ 1.6%	▲ 700	▲5.8%
Health Care & Social Assistance	11.4%	132,700	132,200	129,000	▲500	▲ 0.4%	▲3,700	▲ 2. 9 %
Arts & Entertainment	۱.0%	13,100	12,800	11,500	▲ 300	▲ 2.3%	▲ 1,600	▲ 13.9%
Accommodation and Food Services	10.7%	124,900	125,000	125,300	v 100	┯ 0.1%	v 400	▼ 0.3%
Other Services	3.2%	40,500	40,600	40,700	v 100	▼ 0.2%	v 200	▼ 0.5%
Government	21.3%	244,900	244,600	245,200	▲300	▲0.1%	▼ 300	▼ 0.1%

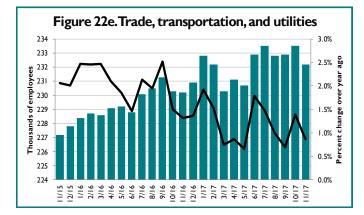
Table 2. Change in Mississippi employment by industry, November 2017

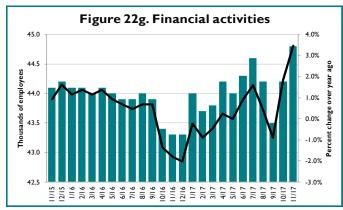
^aRelative shares are for the most recent twelve-month average. Source: U.S. Bureau of Labor Statistics

MISSISSIPPI EMPLOYMENT TRENDS BY SECTOR, IN FIGURES

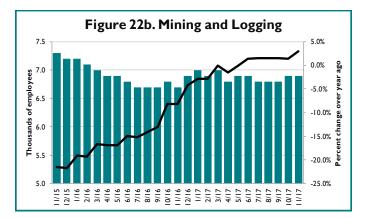


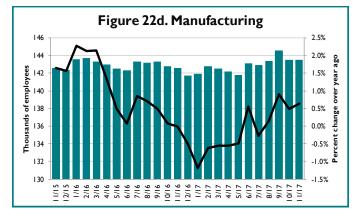


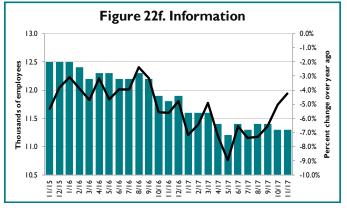


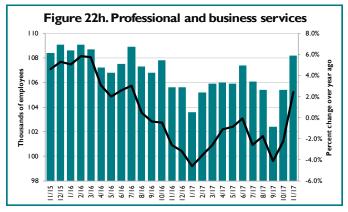


Source: U.S. Bureau of Labor Statistics (all figures); seasonally adjusted

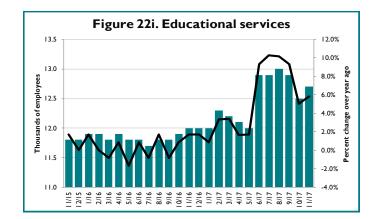


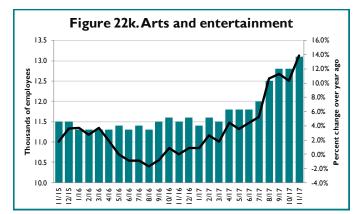


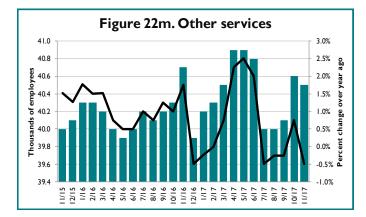


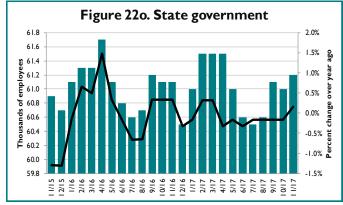


MISSISSIPPI EMPLOYMENT TRENDS BY SECTOR, IN FIGURES (CONTINUED)

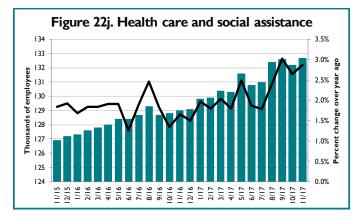


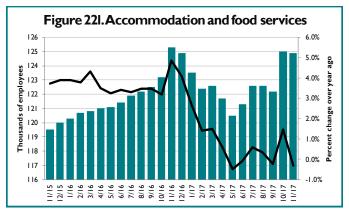


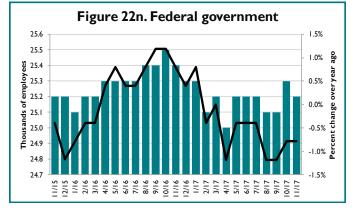


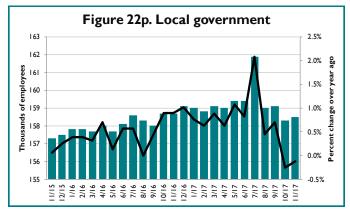


Source: U.S. Bureau of Labor Statistics (all figures); seasonally adjusted









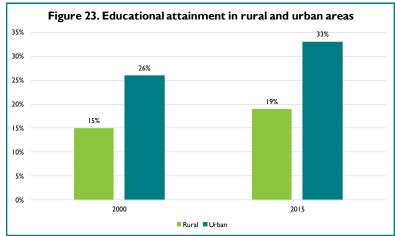
WHAT RESEARCH LITERATURE SAYS ABOUT "BRAIN DRAIN"

The issue of "brain drain" as it relates to the Mississippi economy has received increased attention recently from news media. The term brain drain is defined by Merriam-Webster as "the departure of educated or professional people from one country, economic sector, or field for another usually for better pay or living conditions." While the term only came into use in the 1960s, the phenomenon is not new. Individuals have almost always left rural regions for urban areas throughout the history of the U.S.; in fact, only in the last hundred years has the population of the country become majority urban. However, what has changed in recent years is the U.S. has become increasingly segregated by education. Fifty to sixty years ago a relatively small percentage of the U.S. population was college-educated and for the most part this population was distributed evenly throughout the country. Today this population share is larger but it is also much more concentrated in the nation's urban centers (Domina, 2006). This demographical shift and the brain drain issue in particular has profound implications for the Mississippi economy, as the college-educated share of the state's population is one of the smallest in the country. Without getting into the statistics reported by the news media regarding the issue in Mississippi, this article discusses the findings of recent research in economics as well as other fields on brain drain.

One possible issue surrounding brain drain is that those who seek to improve their human capital–compared to those who are not–are also those who are predisposed to leave their communities. Meece et al. (2014) in a national survey of rural high school students found that "lower educational and occupational aspirations were reported by youth with strong attachment to a rural lifestyle, more positive perceptions of local economic opportunities, and residential aspirations to remain close to their home community." Similarly, Byun et al. (2012) find in another survey of rural high school students that, not surprisingly, students who were more interested in attending college were influenced by parents and teachers with similar expectations for them. However, their findings held when controlled for sociodemographic variables. Moreover, Byun et al. note they "found little evidence suggesting that the number of siblings and the proportions of students eligible for free lunch and of minority students are related to educational aspirations of rural youth . . ." Thus, at least some research suggests that a mindset affects human capital development and in turn brain drain more than underlying demographic or social characteristics.

Theodori and Theodori (2015) summarize much of the research on brain drain when they note a survey of students in Pennsylvania concludes "those who believed they could find work in their current community were less likely to aspire to be living elsewhere, whereas youth who believed they would need to move to get a job or pursue higher education were more likely to aspire to relocate." In their own analysis of survey data of rural youth in Texas, Theodori and Theodori find "those students who plan to attend a vocational, trade, business school, or community college were more likely than those students who aspire to earn a four-year or advanced college degree to express intentions to

remain in the community." Marré (2014) notes that wages tend to be lower in rural areas for jobs with the same level of educational attainment compared to urban areas, and that jobs in rural areas typically require a lower level of skills relative to urban areas. However, he notes that educational attainment in rural areas is increasing. Indeed, as the graph in Figure 23 indicates, the percentage of the working age population twenty-five years old and older climbed from 15 percent in 2000 to 19 percent in 2015. However, the graph also indicates educational attainment in rural areas remains below that of urban areas and that this gap widened between 2000 and 2015.





WHAT RESEARCH LITERATURE SAYS ABOUT "BRAIN DRAIN," CONTINUED

In their survey of graduating seniors from public universities in Iowa, Fiore et. al (2015) find that cost of living and strength of the local economy were the most important attributes of communities. They note that, "This finding suggests that students seeking to relocate after graduation consider employment opportunities, affordability of living, and vibrancy in the local economy as being most important." The authors also suggest their findings, in comparison to other research, indicate graduates from rural areas may seek different attributes than those from urban areas. Nevertheless, a number of these features overlap in their importance to both groups.

Given the analysis outlined above, what can states do in terms of policy to counter brain drain? One important aspect to keep in mind is all states experience some degree of migration among new college graduates and young professionals. However, a substantial portion of these individuals likely will return later in life. In that respect, policies that focus on factors important to all demographics such as a strong local economy and cost of living as outlined by Fiore et. al, as well as others-such as the education system and overall quality of life-are likely key to retaining or recapturing human capital. Fiore et. al assert the state of lowa should emphasize the former factors in its marketing campaigns and focus directly on a younger demographic. Research also finds support for state-funded, merit-based financial aid programs in reducing the loss of college graduates. Theodori and Theodori (2015) propose schools and communities provide information and resources on careers to students in the local area who are interested in remaining. They note that many positions needed in the local economy may require further training beyond high school but not a four-year degree, and that, "Entrepreneurship opportunities should also be made a priority for young people who want to stay in their home communities but who desire a career that is not available in their hometowns." Marré (2014) proffers similar guidance, such as ". . . building on existing assets, such as natural amenities or built capital, identifying ways to improve the skills of the existing workforce and attract college-educated workers. . ."

In sum, research indicates no single policy measure likely exists as a "silver bullet" to stemming brain drain in Mississippi or any other U.S. state. However, a consistent finding that emerges across the literature is that policies that focus on improving economic and educational opportunities as well as the overall quality of life in a region–something that appeals to all population groups–likely offers the best long-term prospects for preserving and improving human capital.

FOR FURTHER READING:

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Theodori, A.E., and Theodori, G.L. (2015) The influences of community attachment, sense of community, and educational aspirations upon the migration intentions of rural youth in Texas, *Community Development*, 46(4), 380-391.