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Mississippi Economic Review And Outlook

June 2000

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The pace of the state's economy is slowing, but the overall growth rate has been similar to that of 1999. The increasing use of the new information technologies, here as elsewhere, has boosted productivity, and so enabled producers to meet demand with minimal pressure on prices. More detail is in the state and national forecasts.

With most new jobs in the services sector, state policies to foster the growth of higher-wage jobs must include policies aimed at this sector. Marianne Hill and Lori Stuntz examine the service sector in Mississippi, and present guidelines for determining which higher-wage service industries have particularly strong multiplier effects on the economy. Policy options available to encourage the growth of such industries are considered.

Mississippi has fewer workers per 100,000 persons of working age than most states, and, in addition, since 1994, the labor force participation rate has dropped. Christian Pruett examines the causes of this decline, and some of the steps that can be taken to bring more persons into the labor force. County-level data is provided.

To subscribe to this *Review,* which is published twice yearly, please fill out the form included in this issue. National projections are based on the forecast of the WEFA Group. As always, the views expressed in the *Review* are those of the authors and do not necessarily represent the official position of the Center for Policy Research and Planning or the Mississippi Institutions of Higher Learning.

Letters from readers are most welcome!

Marianne T. Hill
Editor and Senior Economist
Center for Policy Research and Planning
Jackson, MS 39211

In This Issue

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NATIONAL ECONOMIC OUTLOOK

***The gross domestic product (GDP), which increased 4.2 percent in real terms in 1999, grew even more rapidly in the first quarter of 2000. The pace has been dropping since then, however.**

***A sizeable jump in productivity rates has been supporting higher profits while restraining prices.**

***Consumer prices are slowly rising, but inflation, as measured by the rate of increase in the Consumer Price Index (CPI), is not expected to top 3.3 percent this year. From 2001 to 2002, prices are forecast to increase less than 2.5 percent.**

***Interest rates will continue to rise, triggered by on-going increases in the discount rate by the Federal Reserve Board as it acts to prevent over-heating of the economy.**

***Imbalances in the economy will eventually mean a noticeable slowdown, but a soft landing, or gradual adjustment, is possible.**

The U.S. growth rate in the first part of 2000 has been impressive, but the pace is based, in part, on an unsustainable rate of increase in debt. A gradual slowdown is expected. So far this year, national growth rates of production and employment have been strong, with output up a surprising 5.4 percent in the first quarter and employment up an even more surprising 2.6 percent, representing an increase of over 800,000 jobs. Inflation remains low, despite the beginnings of some upward pressure on prices. Producer prices and consumer prices, excluding food and skyrocketing energy costs, rose less than 2.4 percent in the first quarter, and crude oil prices have fallen since then. Even with energy and food included, inflation, whether measured by the CPI or the GDP deflator, is expected to be under 3.5 percent this year.

One reason that prices have not risen more rapidly is that productivity is up sharply, reducing the cost of production. Contrasted with an average annual increase of less than 1.0 percent over the 1993-95 period, productivity climbed at a 3.0 percent rate in 1999, with the last quarter of 1999 posting the amazing growth rate of 6.1 percent. The overall productivity increase in 2000 is expected to exceed even that of last year. As a result, despite a rise in compensation per worker hour of 4.8 percent in 1999, unit labor costs rose only 1.7 percent and will remain manageable this year.

Rising productivity has also been beneficial to profits, which recovered in 1999, after a slight dip in 1998. In the first quarter of this year, before-tax corporate profits were up 32.8 percent, although much of this went to spring tax collections. (After- tax profits were up 6.7 percent compared to the first quarter of 1999.)

As for the not-so-good news, or as *Business Week* (5/15/00) put it, the Serpent in Paradise, the first signs of inflation have emerged. And, with much of the current boom riding on high levels of both confidence and debt, the possibility of a change in expectations triggering a fall in demand is worrying the Federal Reserve Board. These concerns are examined in the forecast below.

Behind the Forecast

Table 1 gives numbers reflecting recent trends through the first quarter of 2000. The growth

Table 1. **SELECTED QUARTERLY NATIONAL ECONOMIC INDICATORS**
Percentage Change, SAAR, Current Dollars Unless Otherwise Indicated

	I 1999	II 1999	III 1999	IV 1999	I[P] 2000
Gross Domestic Product (1996 $)	3.7%	1.9%	5.7%	7.3%	5.4%
Index of Industrial Production	2.0%	4.7%	4.8%	5.2%	6.2%
Manufacturing, % Capacity Utilized	79.6%	79.6%	79.7%	80.3%	80.7%
Establishment Employment	2.5%	1.9%	2.2%	2.1%	2.6%
Business Loans	1.8%	3.5%	5.0%	8.9%	10.3%
Consumer Credit Outstanding	10.3%	4.6%	5.2%	8.1%	8.7%
Personal Disposable Income	5.5%	5.4%	4.7%	7.1%	6.3%
Hourly Compensation	4.3%	4.6%	4.6%	3.9%	4.1%
Standard & Poors 500 Equity Price Index (quarterly change)	12.2%	5.6%	0.9%	2.3%	3.3%
Consumer Expenditures	7.8%	7.2%	6.6%	8.3%	11.3%
Light Vehicle Sales, Millions, SAAR	16.3	16.7	17.2	16.9	18.1
Housing Starts, Millions, SAAR	1.76	1.59	1.66	1.69	1.72
Gross Private Domestic Investment	3.5%	-2.2%	12.5%	10.0%	8.1%
Before-Tax Corporate Profits	29.6%	8.9%	8.9%	16.1%	32.8%
Trade Deficit, (1996$)	22.3%	12.0%	6.0%	1.1[P]%	9.6%

SAAR - seasonally averaged annual rate, based on quarter-to-quarter growth rates.

[P]First quarter data are projections or preliminary numbers.

SOURCE: WEFA Group, May 2000.

rates of gross domestic product, industrial production, and employment have been strong. Despite some increase in interest rates, there is little sign in the figures of a slowdown in consumer spending on vehicles, housing or private investment. Nor has borrowing slowed much, with business loans and consumer credit outstanding continuing to rise at a brisk rate. In fact, the growth of expenditures continues to outpace the growth of income. Even the poor showing of equity prices, as reflected in the Standard & Poors 500 index, does not appear to have affected consumer spending much. There has been speculation that rising home prices, which have added to national wealth and confidence, help to account for this consumer buoyancy.

Overall, the national economy is expected to grow more rapidly this year than last, spurred on by high levels of spending by consumers and businesses. Interest rates will continue to rise as the Fed ups the discount rate, with rising rates having an increasing impact over the coming months. Gradually, consumers' willingness to take on additional debt will fade in the face of slowing stock market gains and the higher interest rates. Business demand for producers durable equipment (PDE) will moderate as well in response to the higher rates and slower consumer demand. The result will be lower growth rates of output and employment over the coming years.

Forecast Numbers

As shown in Table 2, the baseline forecast is that GDP will rise 5.1 percent this year, after adjustment for inflation, 3.8 percent in 2001 and 3.5 percent in 2002. Though the increase in prices, as measured by the GDP deflator, will be only 2.2 percent this year, consumer prices will rise at a 3.3 percent clip. The difference is due largely to the greater importance of producer prices in the GDP price index. Producer prices, apart from energy and tobacco prices, have increased only modestly, as productivity growth and the pressures of competition have acted to keep prices down. The increase in consumer prices is expected to drop from 3.3 percent this year to about 2.4 percent in 2001 and 2002. This slower inflation will be the result of the combined effects of lower energy prices and the slow- ing demand for products and services.

Changes in investment spending inevitably accompany any pronounced economic slowdown, and Table 2 shows a marked drop-off in gross private domestic investment from an 9.5 percent increase this year to a 4.7 percent increase in 2002 as businesses defer investments with lower rewards and higher risks.

Tight labor markets are forecast for the next three years, barring unexpected jolts to the global economy or dramatic shifts in business and consumer expectations. Employment growth, however, will gradually slow to the more sustainable rate of 1.5 percent in 2002, falling from a 2.2 percent increase this year. The unemployment rate will remain near 4.1 percent.

Table 2. **U.S. ECONOMIC FORECAST 2000-2002**

	2000	2001	2002
Gross Domestic Product (Percent Change)	7.4	6.1	5.2
Real Gross Domestic Product (Percent Change)	5.1	3.8	3.5
Price Level (Percent Change)	2.2	2.2	1.6
Real Gross Priv Domestic Investment (Percent Change)	9.5	5.9	4.7
Total Establishment Employment (Percent Change)	2.2	1.8	1.5
Manufacturing	-0.3	0.2	0.2
Services	3.4	2.8	2.1
Construction	4.2	2.0	1.9
Trade	2.2	2.4	2.0
Finance, Insurance, Real Estate	1.0	0.8	0.9
Transportation, Communication, Utilities	2.3	1.3	1.5
Government	1.7	0.9	0.8
Unemployment Rate	4.0	4.1	4.2
Personal Income (Percent Change)	6.7	6.1	5.4
Consumer Price Level (Percent Change)	3.3	2.4	2.4
Prime Rate	9.4	9.9	9.4

SOURCE: WEFA Group, June 2000.

Unfinished construction projects financed by fixed interest loans will provide much of the momentum behind the growth in construction employment predicted. Services employment will continue to be the major source of new jobs, along with the wholesale and retail trade sector. Among services, business services will grow more rapidly than health services, where rising costs are having

a negative impact on employer demand. Manufacturing employment continues to remain essentially level.

By 2001, the increase in the prime rate to near double-digit levels, as seen in the table, will be translating into a cooler economy and so slower growth in wages and employment. The result: personal incomes will increase only about 5.4 percent in 2002, while this year personal income has been growing at a 6.7 percent rate.

Alternative Forecast Scenarios

Table 3 presents four alternative forecast scenarios. The baseline forecast for 2000 of a 5.1 percent growth in GDP, slowing to 3.8 percent and 3.5 percent growth in following years, has an associated probability of 55 percent, according to WEFA's June report. It is possible, however, that growth could be even higher than this if investment in high-tech capital goods continues to grow strongly and productivity accelerates. New products and falling prices would contribute to this effect, which would mean a faster growth of industrial production. Higher-than-expected growth in Europe and the rest of the world would also have this result--spurring exports, while the concomitant higher foreign prices would reduce U.S. appetite for imports. This high-growth alternative is assigned a 15 percent probability.

Low growth (with a probability of 20 percent) or near-recession growth (with a probability of 10 percent) would be the result of rising interest rates and stagnant or falling stock prices. While it is not likely, it is possible that the Federal Reserve may hike the discount rate to 7.5 percent by the spring of 2001, or that the U.S. stock market may experience a decline similar to

Table 3. **ALTERNATIVE SCENARIOS AND PROBABILITIES IN NATIONAL ECONOMIC FORECAST, WEFA GROUP, JUNE 2000.**

	Rate of Growth of Real GDP			**Probability**
	2000	**2001**	**2002**	
Baseline	5.1	3.8	3.5	55%
Low Growth	4.9	2.7	2.6	20%
High Growth	5.3	4.1	4.2	15%
Recession[1]	4.9	1.6	1.6	10%

[1]Some past recessions have disappeared as a result of government revisions to price indexes. This recession is in that range of magnitude, even though two consecutive quarters of negative growth are not forecast.

SOURCE: WEFA Group, June 2000.

the 1987 drop. Under this worst case scenario, growth rates drop below 1.0 percent for two quarters. While this is not a recession, it comes close. In fact, recent revisions to statistical data have eliminated some past recessions. (The definition of a recession is a fall in GDP for two consecutive quarters.) A more moderate rise in interest rates, and a less severe drop in stock prices, would have less negative impact on consumers and business and so less severe effect on growth rates under the low-growth scenario.

A Closer Look At Potential Problems

According to the above analysis, the main potential problems in the current economic paradise are occasioned by the appearance of the serpent Inflation, who must be fought with higher interest rates, and by the temptations of Speculation and Easy Credit, which put demand at risk. The fact that consumers and businesses have been financing much of recent demand by build-up of debt (see December issue of *Review*) means that a sudden drop in consumer or business confidence could trigger a more severe downturn than forecast. Stock prices that are high in relation to the market value of corporations have been a source of concern for analysts since the mid-1990s, who worry about the effect of an end to the speculative boom.

Line 5 of Table 4 shows trends in the market value of corporations (assets minus liabilities), which has grown by almost $2 trillion since 1995. However, the value of corporate equities has increased by over $6 trillion, an astonishing figure. Until the mid-1990s, the market value of firms exceeded the value of equities outstanding. The continuing high demand for equities is understandable only on the presumption that equity holders believe that the value of equities approximates the present value of the future earnings of corporations, and that alternative investments have lower present values. Since future earnings are inherently unpredictable, a sudden change of opinion is quite possible - and would result in stock market adjustments.

Trade Deficit Also Adds to Uncertainty

Another source of uncertainty is the future behavior of foreign investors. The current U.S. prosperity is, in part, dependent upon the willingness of foreigners to invest in U.S. financial assets. Since 1993 , the U.S. trade deficit has tripled, made possible by a tremendous increase in U.S. financial assets owned by foreigners. Based on WEFA projections, the current account deficit will reach 4.5 percent of U.S. GDP this year, compared to only 2.5 percent in 1998, and the U.S. net financial debt to foreigners, at about $2.3 trillion, is getting close to 25 percent of GDP.

The fact that foreigners hold such sizeable financial assets can become a problem, should they decide to sell rapidly. The recent drop in the U.S. stock market encourages foreign investors to seek alternative investments. This means that more dollars received in payment for imports purchased by U.S. will go to foreign instead of U.S. assets. As foreigners become less willing to accept U.S. dollars, the value of the U.S. dollar drops. A complication then arises, since the U.S. dollar also serves as the pre-eminent international currency, and, as such, world stability depends on a stable dollar. Currency depreciation of the magnitude needed to lower the U.S. trade deficit significantly presents problems. In order to minimize any disruption to the world economy, the depreciation of the dollar is carefully monitored, and if it were to become undesirably rapid, it is likely that U.S. interest rates would be raised to maintain foreign inflows. This presents no problem in an over-heating U.S. economy, but a sharp rise in interest rates during a slowdown could conceivably result in a recession. To forestall such a development, the U.S. has sought increased international co-operation on economic policies, designed to speed along the global recovery and boost demand for U.S. exports.

Table 4. **NONFINANCIAL CORPORATE BUSINESS**

Billions of dollars, SAAR

	1995	1997	1999
1. Net issue of corporate equities	$-58.3	$-114.4	$-142.7
2. Net issue of mutual fund shares	$147.4	$265.1	$191.3
3. Sum (1+2)	$89.1	$150.7	$48.6
4. Increase in corporate debt outstanding	$229.8	$281.5	$478.4
5. Total market value of nonfarm corporations	$5,484.3	$6,327.2	$7,316.8
6. Market value of equities outstanding	$6,435.0	$9,661.1	$14,774.0

SOURCE: Board of Governors, Federal Reserve System at www.bog.frb.fed.us. (1.) Table F-213, (2.) Table F-214, (4.) Table D-3, and (5.) and (6.) Table B-102. (5) represents market value or assets minus liabilities.

Besides the precarious nature of inflows from abroad, interest and other payments to foreigners further complicate matters. Outflows to foreigners are now larger than the counterpart payment streams into the U.S. from abroad, which adds to the already considerable balance of payments pressures.

In short, the persistent trade deficit and the high level of foreign debt at some point will mean at the least a depreciation of the dollar, accompanied by higher import prices and most likely higher interest rates. If our trading partners increase their imports from us, however, the adjustment this will entail can be moderated. When will this adjustment occur? "In recent crises, current account deficits that surpassed about 5 percent of GDP became seen as signals of a necessary currency devaluation", warns Robert Blecker of the Economic Policy Institute (www.epinet.org). He adds that if the current account deficit hits 6.3 percent of GDP, or if the net financial debt to foreigners hits 45.5 percent of GDP, as it will under certain assumptions, a sizeable negative reaction from international investors is almost guaranteed. The current account deficit, he argues, is nearing that critical stage.

Written by Marianne Hill, with input from members of the Center for Policy Research and Planning.

MISSISSIPPI ECONOMIC OUTLOOK

*** Employment growth continues at an average annual rate of between 1.5 and 2.0 percent, somewhat slower than the national rate of increase, which was 2.2 percent in 1999.**

***The estimated 4.0 percent growth of personal income in 1999 significantly lagged the 5.9 percent national increase. Improvement is expected this year, with the projected growth rate at 4.5 percent.**

***Tax collections, however, are unlikely to increase sufficiently before July to eliminate the expected shortfall in revenue for the FY2000 state budget.**

*** Jobs in textiles and apparel are still being lost, and manufacturing employment continues to shrink as a percentage of the total. Tourism, on the other hand, continues its expansion, as evidenced most recently by the rapid growth in hotels and lodging employment.**

***The 2000-2005 outlook is for continued moderate growth of output and employment, more in line with long-term capacity, with only a modest increase in consumer prices, on the order of 2.5 percent or less.**

The excitement of the mid-90s rush is gone, and the state economy is now truckin' on at a more sustainable pace. There has been more than enough positive news in recent numbers to keep optimists happy, while a few stumbles in the data provide vindication for pessimists awaiting a downturn. Both agree on one point: the pace of the state's economy has slowed, even if word has not yet reached at least one key group, consumers.

The slowdown is perhaps most apparent in the latest data on personal incomes and tax revenue collections. **Personal incomes** in Mississippi increased 5.8 percent in 1998, but grew at an annualized rate of less than 3.0 percent in the first half of 1999 before recovering in the third quarter to a 5.0 percentage growth. Receiving considerably more publicity, **Tax Commission collections** for FY2000 July through May were only 3.7 percent above collections over the comparable period in FY1999--a rate below the 4.7 percent growth originally predicted. See box accompanying this article for more detail.

Table 1 gives first quarter data on the state economy. Growth rates of retail sales, gaming revenue and employment are all comparable to those of 1999--with employment growth and growth of gaming revenues being a bit stronger. The other variables had lower growth rates--with the 4.0 percent drop in building permits being most striking. This, along with the slight drop in **construction** employment shown in Table 2, suggests that the 1990s boom in construction could be diminishing. Activity levels remain high, however, with several major projects still on line.

The 7.7 percent increase in merchandise **retail sales** and the 4.2 percent increase in overall retail trade were sufficient to bring sales tax collections over estimate. Employment growth in retail trade has been modest, however, according to figures shown in Table 2, although in recent years the Mississippi Employment Security Commission (MESC) has had difficulty capturing new jobs in this sector so that some upward revision is likely.

Other CPRP Indicators

Indicators calculated by Mississippi's Center for Policy Research and Planning, and available in its monthly publication *Mississippi's Business*, provide more insight into the state economy.

Table 1. **PERCENT CHANGE IN SELECTED INDICATORS, MISSISSIPPI**
First Quarter 2000 over First Quarter 1999

Total Nonagricultural Employment		1.6%
Total Tax Commission Collections (millions $)		4.9%
Value of Residential Building Permits (thousands $)		-4.0%
Merchandise Retail Sales (millions $)		7.7%
Total Retail Trade (millions $)		4.2%
Gaming Revenues (millions $)	Coast	20.9%
	River	9.1%
	Both	13.8%

SOURCE: Center for Policy Research and Planning, Mississippi Institutions of Higher Learning, May 2000.

Coincident indicators, constructed to parallel broad trends, have scarcely risen over the past 12 months: the index stood at 106.7 in April this year, versus a value of 106.3 in April 1999. The value of the index dropped every month from February to April, the latest month for which data is available. The coincident index is based on seasonally adjusted data on nonagricultural employment and merchandise retail sales.

Leading indicators, designed to forecast future economic performance, similarly stood higher in April of this year than a year ago: 103.1 versus 102.9. This index, which rose in February, dropped in March and April. A drop in building permits issued in April contributed to the fall in the index that month, and seasonally adjusted data on service employment, another component of the index, also fell. The length of the average workweek and manufacturing employment held steady. Initial unemployment claims rose marginally.

Recent Employment Data

With the state's unemployment rate at its lowest level since 1974, it is to be expected that employment growth would slow--tight labor markets are generally identified by slower employment growth, low unemployment rates, and rising wages. Employment grew 0.35 percent between the last quarter of 1999 and the first quarter of 2000, for an annualized rate of 1.4 percent. As Table 2 shows, overall first quarter **establishment** employment stood 1.6 percent higher than in the first quarter of 1999, and the unemployment rate was 5.1 percent. This rate of employment growth is distinctly slower than that of the nation as a whole, which is also experiencing tight labor markets and the lowest unemployment rates seen since 1969 (4.2 percent in 1999). Nationally, the growth rate of employment was 2.2 percent in 1999, but surprised analysts by forging ahead at a seasonally-adjusted annual rate of 2.6 percent in the first quarter of this year. For the year as a whole, employment growth is almost expected to match last year's; WEFA forecasts an increase of 2.1 percent.

Table 2 data also show that **manufacturing** employment is continuing to decline, and that the growth of the services-producing industries accounts for the greatest part of new jobs generated. It should be mentioned that the numbers in Table 2 are preliminary and subject to revision; also,

Table 2 . **MISSISSIPPI EMPLOYMENT BY SECTOR**

	Jan. - Mar. 2000	Jan. - Mar. 1999	Percent Change
ESTABLISHMENT-BASED EMPLOYMENT	1152.4	1134.3	1.6
Mining	5.5	5.3	3.8
Construction	53.9	54.1	-0.4
Total Manufacturing	242.8	244.6	-0.7
Durable Goods Mfg.	153.0	153.5	-0.3
Lumber & Wood	25.7	26.4	-2.7
Furniture & Fixtures	31.5	29.6	6.4
Stone, Clay & Glass	6.2	6.1	1.6
Metal Products	18.1	17.9	1.1
Industrial Machinery	19.1	19.2	-0.5
Electronic Equipment	22.1	22.3	-0.9
Transportation Equipment	24.4	27.1	-10.0
Instruments & Related	1.3	1.3	0.0
Nondurable Goods Mfg.	89.8	91.0	-1.3
Food & Kindred Products	29.3	28.9	1.4
Textile Mill Products	4.4	4.5	-2.2
Apparel	16.8	18.1	-7.2
Paper & Allied	8.4	8.9	-5.6
Printing & Publishing	7.9	7.9	0.0
Chemical & Allied	7.3	7.6	-4.0
Petroleum & Coal	2.5	2.4	4.2
Rubber & Plastics	13.2	12.6	4.8
Service Producing Industries	850.1	830.3	2.4
Transportation & Utilities	56.6	54.0	4.8
Transportation	34.6	32.6	6.1
Communications	11.8	11.4	3.5
Wholesale Trade	45.6	46.7	-2.4
Retail Trade	202.2	200.2	1.0
Finance, Ins., Real Est.	42.1	42.2	-0.2
Banks & Credit Institutions	21.2	21.5	-1.4
Insurance	12.0	12.6	-4.8
Services	271.4	260.3	4.3
Hotels & Lodging	33.2	29.7	11.8
Amusement, incl. Movie	26.1	24.6	6.1
Health Services	76.0	75.3	0.9
Total Government	232.3	227.0	2.3
Federal Government	25.7	25.9	-0.8
State Government	61.1	57.6	6.1
Local Government	145.5	143.5	1.4

SOURCE: Mississippi Employment Security Commission, April 2000. Preliminary figures.

NOTE: These employment figures differ significantly from the employment figures of the U.S. Bureau of Economic Analysis (BEA), which are reported in Appendix B in this Review and upon which the Center's economic forecast is based. The differences are due to the fact that the state Employment Security Commission's reports establishment employment on the basis of employer reports on employees covered by unemployment insurance. The BEA, however, adjusts these figures down to the county level on the basis of tax compliance information available only at the national level. It also includes the self-employed, private household employment and agriculture.

based on recent past history, manufacturing numbers do not change as much as the harder-to-capture service industries, where change has been tremendous in recent years.

While Mississippi's manufacturing employment has been out-performing the Southeast and the U.S. as a whole, the sector still lost an estimated 1,800 jobs between the first quarter of 1999 and the first quarter of this year. Table 2 shows that **durable goods** manufacturing is at almost the same level it was a year ago. The individual industry showing the most growth in early 2000 was furniture and fixtures, reflecting the boom in residential housing construction across the country. Between 1998 and 1999, employment grew 9.3 percent in this industry, and this year growth may well remain above 5.0 percent. The 10 percent drop registered in transportation equipment will be moderated later this year; Ingalls Shipyard is currently undergoing expansion and renovation of its facilities.

Nondurable goods employment is not yet out of the doldrums. After dropping 2.5 percent last year, it is likely to fall again this year. A 0.7 percent decrease is forecast for 2000. The outstanding performers in this sector for the past 12 months have been petroleum & coal products and rubber & plastics, whose growth rates have averaged over 4 percent. Food & kindred products has also been enjoying positive growth, but apparel & textiles have not yet stopped shrinking.

Among services-producing industries, the turn-around in **transportation/ communication/ utilities** is particularly welcome news. While the Southeast and the rest of the country have enjoyed employment growth in excess of 2 percent every year since 1996, the sector here averaged only a 0.9 percent increase. In 1999, however, employment growth was 3.2 percent and, in the first quarter this year, the increase was 4.8 percent, as shown in the table. This sector is largely a provider of services to the goods-producing sectors, and its growth is contingent upon trends in output and employment, both nationally and at the state level. The forecast, accordingly, is for a growth rate of about 2.0 percent this year, slowing after that, as the growth of gross domestic product (GDP) decelerates. The subsector of communications, however, may continue near its current growth rate, at about 3.0 percent, reflecting the importance of telecommunications in the information age economy.

Wholesale and retail trade appear to be growing more slowly this year, and **finance/ insurance/ real estate** is continuing at a slow pace in comparison to the rest of the nation. **Government** employment growth shown in Table 2 is over 2 percent, but given the slower pace of the economy as well as slowing tax collections, the forecast is for an increase in this sector of under 2.0 percent this year and into 2005.

While in one sense, the 4.3 percent growth in **services** employment reported in Table 2 is good news, the fact that the 5,000 new jobs in hotels & lodging and amusements account for much of the 11,100 net increase in employment raises an issue of concern. Mississippi lagged the rest of the country in the growth of employment in computer system design services, educational services, and engineering/ accounting/ research/ management services, from 1992 to 1997, and also in information technologies over the 1995-98 period, according to a recent study (Zandi, 1999).[1] These industries include many of the higher-paying service jobs, while hotels and amusements pay less than average. Another article in this *Review* explores trends in the state's service sector and policy issues related to the growing importance of services in the new economy.

Mississippi and the Southeast

Other recent data, from the Georgia State University Forecasting Center, show Mississippi's overall growth rate lagging that of the Southeastern region as a whole, which in turn has been growing more slowly than the nation. The gap between the 4.1 percent increase in gross domestic product and the estimated 2.5 percent increase in gross regional output in 1999 is due in large part

Table 3. **EMPLOYMENT GROWTH MISSISSIPPI, THE SOUTHEAST AND THE U.S. 1998-**

1999

	Mississippi	Southeast[1]	United States
Total Nonfarm Establishment Employment	1.9	2.6	2.2
Mining	-17.5	-8.9	-9.3
Construction	2.4	5.0	4.9
Manufacturing	-0.2	-1.3	-1.8
Transportation, Communication, Utilities	3.2	3.9	2.9
Wholesale, Retail Trade	2.9	2.3	2.3
Finance, Insurance, Real Estate	-0.2	3.4	3.1
Other Services	2.9	4.9	3.9
Government	2.5	1.6	1.7

[1]The Southeast Region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia and West Virginia.

SOURCE: Mississippi Employment Security Commission, the Economic Forecasting Center of Georgia State University, and the U. S. Department of Labor.

to the greater dependence of the South on manufacturing, which has been weakened by a slow world market and a loss of jobs due to the North American Free Trade Agreement (NAFTA). The Forecasting Center notes also that a more accurate estimate of productivity gains would bring the increase in regional output closer to 3.7 percent and reduce the gap in growth rates. Low oil prices in early 1999, they add, means that their indicators also underestimate the growth rates of Texas and Louisiana, relatively large states. Mississippi's index of coincident indicators is estimated to have increased 2.0 percent.

Table 3 shows that Mississippi's employment growth has been relatively stronger than that of the Southeast region in manufacturing, wholesale/retail trade and government. The U.S. lost 1.8 percent of its manufacturing jobs in 1999, and the Southeast 1.3 percent, while Mississippi only lost 0.2 percent. The main growth engine was services. The growth of jobs in services was 2.8 percent in the state, 3.9 percent in the U.S., and 4.9 percent in the Southeast. The only sector growing more rapidly than services in Mississippi was transportation/ communication/ utilities, which accounts for only 4.9 percent of total employment. In the Southeast and the U.S., only one sector, construction, which accounts for less than 5 percent of total employment, outperformed services. Clearly, services, which now accounts for over 30 percent of all jobs, has been the driving force behind the current expansion.

Short-Run Forecast

Continued moderate growth is the forecast for the state economy. The strong national economy will continue to support demand for the state's manufactured products, tourism and services exported out-of-state, such as telecommunication and transportation services. The recovering global economy will also underpin demand for the state's products, counteracting to some extent the negative effects of rising interest rates. The rate of increase in gross state product (GSP) is expected to be only slightly

lower than last year, at 2.7 percent after adjustment for inflation, and will continue at a similar rate in 2001 before returning to a 3.0 percent growth in 2002.

Establishment employment, which is off to a solid start this year, will grow about 1.7 percent in 2000, before falling to a 1.5 percent growth rate in 2001. Following national trends, rising productivity will enable employment growth to continue at approximately a 1.5 percent rate over the entire forecast period. With the continuing growth of employment, labor markets will remain tight, and the unemployment rate hover around 5.5 percent.

Labor market conditions favorable to workers will also push up the rate of increase in wages and salaries a bit for the next three years. This will result in a rising rate of increase in personal

Table 4. **ECONOMIC FORECAST FOR 2000-2003**

	2000	2001	2002	2003
Mississippi				
Gross State Product (Percentage Change)	4.5	4.4	4.6	4.5
Real Gross State Product (Percentage Change)	2.7	2.8	3.0	2.9
Price Level (Percentage Change)	1.8	1.6	1.6	1.6
Establishment Employment (Percentage Change)	1.7	1.5	1.6	1.4
Unemployment Rate	5.4	5.5	5.4	5.5
Personal Income (Percentage Change)	4.5	4.9	4.7	4.7
Consumer Price Level (Percent Change)	2.5	2.3	2.4	2.4
United States				
Gross Domestic Product (Percentage Change)	7.2	5.4	4.8	4.9
Real Gross Domestic (Percentage Change)	4.9	4.0	3.9	3.7
Price Level (Percentage Change)	2.2	1.3	1.0	1.2
Establishment Employment (Percentage Change)	2.1	1.9	1.6	1.3
Unemployment Rate	4.1	4.1	4.1	4.2
Personal Income (Percentage Change)	6.3	5.7	5.1	4.6
Consumer Price Level (Percentage Change)	2.8	2.1	2.3	2.4

SOURCE: Mississippi Institutions of Higher Learning, Center for Policy Research and Planning.
WEFA Group, May 2000.

incomes. Higher interest rates will have a positive impact on interest incomes, while a bearish stock market will keep down dividend growth. The net result will be a moderate growth rate of 4.5 percent in personal income this year, rising briefly to 4.9 percent in 2001 before dropping off some in 2002.

During the same period, the U.S. growth rate of income will be falling steadily, according to the

WEFA forecast, approximately matching Mississippi's 4.7 percent growth in 2003.

The rate of inflation, which picked up this year with the sharp increase in energy prices, will drop some next year as energy costs begin to fall. Despite the pressure of higher energy costs, rising productivity and strong competition have combined to hold down the overall rate of price increase in the consumer price index-South to about 2.5 percent this year. Next year the rate of increase is expected to be closer to 2.3 percent.

Long-Run Trends

The four-year forecast in Table 4 shows growth rates of output and employment that are more in line with long-term capacities than were the growth rates of the mid-1990s. Gross state product increased annually at the average compound rate of 3.6 percent in the 1990s, while in the 1980s the growth rate was just 2.1 percent. Figure 1 shows a growth rate of 3.0 percent predicted for the 2000-2005 period in Mississippi. This prediction is in line with the fact that productivity and population growth has been more rapid than in the 1980s, while factors at work in the 1990s will not be repeated during the coming years. In particular, the start of the gaming industry and the cyclical upswing in the national economy will not be affecting the economy as before.

Figure 2 shows an average 1.5 percent increase in employment expected over the next five years in the state and in the nation. By contrast, the growth of wage and salary employment averaged 0.7 percent annually in the 1980s and 2.5 percent in the 1990s in Mississippi.

Figures 1 and 2 also dramatically illustrate the extent of the slowdown expected both in the state and in the U.S. The growth rates of output and employment fall by over a full percentage point in all cases during the coming period. In the U.S., despite the slower employment growth, the rate of increase in gross domestic product (GDP) is expected to be close to the 4.2 percent increase averaged over the 1994-99 period, at 3.7 percent. Rapidly rising productivity, on the order of 2.6 percent for the private nonfarm economy, makes this possible. While the increase in productivity is not as dramatic in Mississippi, productivity growth will keep the gross state product (GSP) here increasing at about 3.0 percent. The slow growth of information technology industries here, and the smaller proportion of high-wage, high-productivity jobs in the state's service sector, as discussed in the related article in this *Review*, contributes to a slower growth in productivity in the state.

Figure 3 provides some detail on employment growth expected in individual sectors in the state. A slowdown by its nature cannot be evenly distributed. Sectors which are more sensitive to changes in interest rates and expectations, such as construction, will generally be more affected than others. The 2.7 percent average annual increase in construction employment, while among the highest shown, is considerably below its average rate of the past five years. It is fueled by the continuing expansion of the tourism/ retirement industries and on-going projects in a generally healthy economy.

The largest creator of new jobs, the services sector, has been out-distancing the second-largest source of new employment, the wholesale/ retail trade sector. The growth rate of services is expected to be 2.6 percent over the coming period, while new jobs in trade grow only 1.5 percent. The growing demand for business services, hotels and accommodations and amusements/ recreation is behind much of the expansion of services here.

The government sector, which currently employs about one-fifth of the workforce, is forecast to grow at the rate of 1.4 percent--a growth rate comparable to that averaged in the 1990s and slightly below the overall average forecast for the period.

The upturn in employment in transportation/ communications/ utilities in 1999 and favorable national trends have improved the forecast for this sector over the coming period. Improvement in manufacturing employment, however, has been below expectations last fall, and the predicted growth has dropped from 0.6 percent to 0.4 percent. This is higher than the 0.2 percent expected in the U.S. as a whole and reflects the South's generally greater attraction for manufacturers in recent years.

Written by Marianne Hill, with input from members of the Center for Policy Research and Planning.

References

Center for Policy Research and Planning, Mississippi Business, a monthly newsletter of the Missisippi economy published by the Mississippi Institutions of Higher Learning.

Economic Forecasting Center, Southeast State Indicators, Georgia State University, April 2000.

U.S. Economic Outlook 2000-2005, Eddystone, PA: WEFA Inc., May 2000.

Zandi, M., "Information Economy I", *Regional Financial Review*, West Chester, PA: RFA, September 1999.

Endnotes

[1]Information technology was defined in this study to include industries whose share of employment in IT occupations such as engineers and computer operators was greater than seven percent and also industries in which more than 25 percent of equipment is information processing equipment. Manufacturing industries account for about 28 percent of IT under this definition.

Tax Commission Collections

Tax Commission collections for the General Fund grew 3.7 percent between last fiscal year and this fiscal year, if year-to-date figures through May are considered, representing an increase of $100.5 million. However, legislators had been counting on a larger increase when they drew up the FY2000 budget. The table below provides more detail. It shows the actual growth in collections for each category of taxes, as well as the *sine die* estimate. The *sine die* estimate is the estimate of future revenues which is adopted by the legislature at the close of the legislative session. A *sine die* estimate of $3,422 million for FY2000 was adopted at the close of the 1999 legislative session. This estimate was revised by the Joint Legislative Budget Committee and the Governor in October 1999 to include an additional $11.5 million, based on revenue collections up to then.

Under the *sine die* estimate, transfers to the General Fund for the period July through May were expected to reach $3,115.6 million or 91 percent of the fiscal year estimate. Collections through May were $3,086.2 million or $29.4 million short of projections. The shortfall represents less than a 1.0 percent departure from the estimate. With regard to the revised estimate, actual collections were 1.3 percent below the revised estimate.

Why The Slowdown?

It is difficult to explain the slowdown in tax collections simply by reference to aggregate numbers on employment and incomes. The accompanying figure shows that while tax collections tend to parallel overall trends in output, they also fluctuate somewhat more than does gross state product. It does seem apparent, however, that the slowdown in the growth of personal incomes in 1999 helps to account for the fall in individual income tax collections. In most industries in 1999, the rate of increase in earnings in the state lagged behind that of the U.S., based on data through the third quarter. Though employment growth was somewhat lower than for the nation, the lag in earnings was even greater, indicating that wages also grew more slowly. Given that much of the recent surge in the U.S. economy has been tied to new technologies and computerization, the state's relatively lower-skill workforce and its consequent relative weakness in science and technology may be a contributing factor to the slower growth rates of earnings here.

Can More Efficient Administration of Programs Free Up Funds?

Given the slowing rate of increase in tax revenues, there has been growing discussion of how to find additional funds for high priority budget items that are not already built into the annual budget.[1] As in the corporate sector, restructuring of programs to improve the effectiveness of management and delivery has the potential to free up a significant amount of funds. The recent Workforce Investment Act, for example, was formulated specifically to correct duplication and a lack of coordination among training programs. Improved administrative oversight in large programs such as Medicaid offers the potential to save millions of dollars as well.

Consider Medicaid. The cost of Medicaid to the state rose by $80 million from FY1998 to this year, despite a slight decrease in the number of recipients. An increase in payments for prescription drugs contributed to this increase, linked to 1999 state legislation that increased the number of prescriptions per month covered under the state program. Although the state Division of Medicaid has opted to require prior approval for any more than five prescriptions, effective oversight is difficult.[2] The potential for savings is great. A

switch to Medicare rates and procedures in the case of institutional providers is another possible cost-saving measure, as is a greater use of fines and penalties in cases of fraud. All large state programs similarly require continuous monitoring and revamping to improve cost-effectiveness.

Reports by the Performance Evaluation and Expenditure Review (PEER) Committee of the State Legislature and by the State Auditor's Office periodically detail areas where significant savings are possible in the operations of government. The 1995 report, *Choices*, by the State Auditor, is the single most comprehensive document available on state performance. Reports by PEER cover a broad range of activities. For example, recent reports go into some depth probing certain expenditures of the State Department of Education (Report 385), certain procedures of the State Department of Transportation (Reports 388 and 392) and the practices of several other agencies, from Region IV of the Department of Corrections (Report 402) to the Central Office of the Meridian Public School District (Report 359). Follow-up, or follow-through, on some of the recommendations in these reports might pay off handsomely. In any case, the need for closer tracking of expenditures and improved performance measurement are recurrent recommendations in the reports of these offices.

Endnotes

1. Some items built into the budget cover the matching funds which the state must provide for federal programs such as Medicaid and CHIP (the Children's Health Insurance Program). These have a high impact on the state and receive the majority of their funding from the federal government. CHIP, for example, receives over 80 percent of its funds from Washington. As the number of persons eligible for CHIP or Medicaid or TANF (Temporary Assistance for Needy Families) increases, the state must provide the additional matching funds required.

2. As an example of the kind of problems that occur, medications like the new, very expensive Cox-2 inhibitors (for treatment of arthritis), which don't require prior approval, have been prescribed in place of the less expensive nsaids (nonsteroidal anti-inflammatory drugs), which do require prior approval, even when the nsaids are the drug of choice. Relatedly, the data show that the Cox-2's arthritis drugs are not being properly prescribed. They should be used for severe arthritis, where the nsaids have failed. They are being used in other cases, however. Two new weight-loss drugs, Meridia and Xenical, are also available without prior approval, with no restrictions. The 1999 legislature has contributed to rapidly rising costs. Since the legislature increased the number of prescriptions that the state Medicaid plan will cover from five to ten prescriptions per month, the Division has received about 30,000 applications to exceed the previous limit of five. The Division had been expecting closer to 3,000 based on the number of persons who had repeatedly hit the limit of five.

Table A. **GENERAL FUND COLLECTIONS, FISCAL YEAR-TO-DATE, MAY 2000**

Millions of Dollars

Tax Commission Collections	**FY1999 July 1998-May 1999**	**FY2000 July 1999-May 2000**	**Growth Rate**	**Sine Die[1] July 1999-May 2000**	**Over (under) Estimate**
Sales	$1,204.3	$1,258.3	4.5	$1,258.1	0.2
Individual Income Tax	888.9	922.8	3.8	957.7	(34.9)
Corporate Tax	255.6	260.4	1.9	263.3	(2.8)
Use Tax	154.7	146.8	-5.1	161.3	(14.6)
Gaming Fees, Taxes	126.2	145.6	15.4	138.4	7.3
Tobacco/ Beer/ Wine/ Liquor Transfers	117.9	118.1	0.4	117.2	0.9
Other Tax Commission Transfers	160.4	162.8	1.5	147.9	14.9
Total Tax Commission Transfers	2,908.1	3,014.8	3.7	3,043.9	(29.1)
Total Other Than Tax Commission	77.6	71.4	-8.1	71.7	(0.3)
Total General Fund	$2,985.7	$3,086.2	3.4	$3,115.6	($29.5)

[1]The sine die estimate is the estimate of revenues expected for the coming fiscal year [FY2000 (7-1-99 to 6-30-00) in this case]. It is adopted by the legislature at the close of the legislative session, in this case the 1999 legislative session.

[2]The use tax is levied at the sales tax rate upon the user of property acquired outside the state. Credit is allowed for sales taxes paid in other states, except in the case of motor vehicles, whose taxes are assessed at the time of registration.

SOURCE: State Tax Commission, June 2000.

HIGHLIGHTS FROM THE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT

See website at www.mississippi.org or contact Buddy Bynum,
Director of Public Information at 359-3030, for more information.

New Businesses and Expanded Facilities

Over $460 million in new and expanded facilities was reported by the Department of Economic and Community (DECD) during the first four months of 2000. Of this total, $153 million was in manufacturing facilities, a larger amount than during the corresponding period in 1999. The largest individual manufacturing investments were $49 million by Georgia Gulf Chemicals and Vinyls in Monroe County, and $35 million by Viking Range Corporation, a producer of household electric ranges, in Greenwood.

Among the larger non-manufacturing investments, the Grand Casino/Terrace Hotel in Tunica County announced a $72 million facilities expansion, and, in nearby DeSoto County, South Lake Centre is building a $60 million shopping center. Discount Auto Parts will open a new distribution center in Copiah County, an investment of $28 million. The William Winter Archives and History Building in Jackson, at an estimated cost of $25 million, will expand the state's record-keeping capacity and provide services to researchers and scholars.

Reflecting the increasing importance of telecommunications in today's economy, several investments in this industry will be low-cost job generators. For example, NATCOM in Madison County expects to generate 250 new jobs with effectively no capital investment through expanding repair service for communication equipment, including pagers. In-bound telemarketing calls will be received in Hattiesburg by Convergys Corporation, generating an expected 700 jobs from a capital investment of only $ 6 million. Small telecommunication companies are also starting up, including a new internet service provider, Integrity Online, based in Jackson.

Businesses in the News

Raytheon Aerospace, headquartered in Madison, won a multiple-award contract with the Air Force and Navy for aircraft maintenance and supplies, which will be worth almost $700 million if the work continues through 2010 as expected. The first 16-month contract is for $68.6 million. The company will add about 15 employees to its work force of 425. It currently has 4,800 employees worldwide and operates at 261 sites in 30 countries.

● B.C. Rogers Poultry and B.C. Rogers Processors Inc., which together represent the second largest private employer in the state with 3,400 employees, have recently become 100 percent employee owned. According to Mike McAlpin, president of the Mississippi Poultry Association, the employee stock ownership plan (ESOP) puts the company on firmer financial footing during the current downturn in poultry markets (*Mississippi Business Journal*, 2/7/00). There are approximately 10,000 ESOPs in the United States, with assets of over $222 billion and with 10 million employee owners, which represents 10 percent of the American workforce.

● Ridgeland-based Ventura Technologies in Madison County won the Lotus Beacon Award for best e-business solution of 1999 for its efforts in customer relationship managment.

● Pierce International of Iuka is set to begin building its own fiber-optic network across the Deep South, a $100 million project. Work in the states of Mississippi, Alabama, Tennessee, Georgia and Louisiana is expected to be completed by March 2001. The company then plans to take its operations

through the Carolinas, Virginia and Washington, D.C.

● Triton, headquartered in Long Beach, announced that its total shipments of cash dispensers (ATMs) in 1999 put the company in the number two spot in the U.S. The company has more than 35,000 installations in over 15 countries worldwide and was named one of the fastest growing privately held companies in the U.S. by Inc. magazine.

Tourism/Retirement

An exhibit of Spanish treasures, called "The Majesty of Spain", will be on display at the Mississippi Arts Pavilion in Jackson from March 1 to September 3 of 2001. King Juan Carlos I of Spain and his wife, Queen Sofia, are slated to make the trip to Mississippi for the occasion. Two earlier exhibits, the Splendors of Versailles in 1998 and the Palaces of St. Petersburg in 1996, together brought more than 825,000 visitors to Jackson.

● Memorial Day weekend marked the re-opening of the newly redesigned exhibition area of the Stennis Space Center in Hancock County. Visitors now board special shuttle buses at the I-10 Mississippi Welcome Center at the Louisiana border for all Stennis Space Center tours. Prominent among exhibits in the 14,000 square of new space is a section explaining the role played by Mississippians in the program to land a man on the moon.

● A $30-million, 10,00-seat Civic Center is under construction in DeSoto County, funded by a tourism tax, which was enacted in 1997. The facility is scheduled to open in September in time for the Central Hockey league preseason. The Memphis River Kings team will play all their home games in the DeSoto center.

● Two Mississippi towns, Biloxi/Gulfport and Oxford, were rated among the top ten places to live in the small towns category by *Modern Maturity*, the magazine of the American Association of Retired Persons.

● Mississippi experienced a 15.5 percent growth in the number of out-of-state visitors traveling to the state during the past six years, the second fastest growth of any major tourism state during that period, according to a study of the Travel Industry Association of America. Only Louisiana did better. The number of visitors grew from 17.4 million to 20.1 million over that time. In 1999, the state saw an 11 percent increase in accommodations, the highest growth rate in the nation.

Creating Higher-Wage Jobs in the New Services Economy

Marianne Hill and Lori Stuntz

In today's computerized economy, most jobs are in the services-producing sectors, with over eight-four of ten new jobs created in these sectors. For Mississippi as a state, the goal of ensuring access to quality jobs for its workers, then, must include the goal of creating more higher-wage, higher-benefit jobs in the service-producing industries. This article examines where higher-wage services jobs are, what policies are currently in place to foster their growth in the state, and some additional options that policymakers might wish to consider.

Most New Jobs in Services

We begin our analysis by considering data on job creation between 1990 and 1999. 85 percent of new jobs in Mississippi were in services-producing industries. Table 1 lists the service-producing and goods-producing sectors, and provides a breakdown of new jobs created for both Mississippi and the United States. The largest individual services-producing sector is services, followed by wholesale & retail trade. (Services is a broad category including business services, personal services, hotels and lodging, automotive & other repair, amusements, health services, education, legal services, and engineering, accounting, research, and management services.) New jobs in the services sector accounted for 55 percent of new jobs in the country and 50 percent in Mississippi. The second largest job creator was wholesale & retail trade, which provided 24 percent of new jobs in Mississippi and 20 percent in the United States. Food establishments are included in this category.

The numbers on total jobs created in the state from 1990 to 1999 are as follows: services-producing industries provided 189,500 new jobs, with services proper adding 118,500 jobs. The government sector created 28,600 jobs, and the goods-producing sector 16,900. Manufacturing, the largest of the goods-producing sectors, saw a decrease in employment totaling 2,200, while mining lost 500 jobs. Construction added 19,600 new jobs.

Table 1. NET JOBS CREATED BY SECTOR 1990 - 1999

	1999 Total Jobs		New Jobs (thousands)		Percentage of New Jobs	
	US	MS	US	MS	US	MS
Goods Producing	28%	25%	340	16.9	18	7.2
Mining	0.4%	0.5%	-170	-0.5	-0.9	-0.2
Construction	5%	5%	1,150	19.6	6.0	8.3
Manufacturing	14%	20%	-640	-2.2	-3.3	-0.9
Services Producing	65%	53%	17,020	189.5	88.6	80.6
Transportation & Utilities	5%	5%	1,010	10.0	5.3	4.3
Wholesale & Retail Trade	23%	21%	4,030	57.4	21.0	24.4
Fin, Insur & Real Estate	6%	4%	920	3.6	4.8	1.5
Services	30%	24%	11,860	118.5	61.8	50.4
Government	16%	22%	1,840	28.6	9.6	12.2
Total Net New Jobs	100%	100%	19,200	235	100.0	100.0

SOURCE: WEFA Group, March 2000. Center for Policy Research and Planning, March 2000.

Mississippi and United States Compared

Table 2 uses recently released data to compare several services-producing industries in Mississippi and the United States.[1] Data in the table reveal that 55 percent of Mississippi workers in the service industries shown are in industries which have average wages above the state's average for all industries, $21,644. In the U.S., 57 percent of service workers are in industries with average wages above the U.S. average of $27,028. Industry 55, management of companies, has the highest annual wage at $37,384 while accommodations & food services has the lowest, at $9,601 per year.

Column 3 in the table compares the percentage distribution among the various service industries in Mississippi and the United States. Amusements, hospitals and accommodations are the only industries in which the percentage employed in the United States is less than the percentage in Mississippi, shown by a ratio value of less than one. The gap between Mississippi and the United States is greatest in information (51), professional, scientific, technical services (54), management of companies and enterprises (55) and educational services (61). Mississippi's employment in these industries would have to increase by over fifty percent to reach a percentage

comparable to that in the United States. Professional, scientific, and technical services employment would have to be 72 percent greater to reach the national average, management 75 percent greater, and information services 52 percent. These industries pay a wage that is above the state average. Finance and insurance (52) is another high-wage industry where there appears to be room for considerable expansion. Accordingly, policy makers should be aware of the potential for improving incomes by fostering the growth of these industries.

The wage gap between Mississippi and the U.S. also stands out in this table. There are four industries--professional/scientific (54), finance/insurance (52), real estate (53) and educational services (nonpublic sector) (61)--where the average wage for the nation is more than 50 percent higher than in the state. By contrast, in manufacturing, while there is often a gap between the U.S. wage and the wage in Mississippi, the size of the gap does not vary as much. See *Mississippi's Business*, January 2000.

Table 3 provides information on trends. Over the 1992-1997 period, the highest growth rates in the state were in hotels & rooming houses and amusements & recreation, with growth rates of 202 percent and 291 percent, respectively. These two fast-growing industries, then, account for 18 percent of service sector employment, but are industries paying below the state's average wage. Health services has doubled in size as well, however, and its average annual wage at $25,784 is among the highest for service-sector jobs. The low-paying personal services continues to shrink. Table 4 lists the service industries with the greatest employment, along with their average annual wage. Notice that in industries with an average wage above $40,000, the Mississippi wage is often close to the national.

It should be noted that while Mississippi has a smaller percentage of employment in the service sector than does the nation, it has a higher percentage in manufacturing. Twenty percent of jobs here were in manufacturing in 1999, as compared to the nation's 14 percent. In addition, manufacturing accounts for a larger percentage of Mississippi's output than any other sector *(Mississippi's Business*, January 2000). Based on past trends, the relative size of manufacturing will shrink, and can be expected to eventually stabilize at a percentage closer to that of the U.S.

Table 2. EMPLOYMENT AND WAGES INSERVICE INDUSTRIES, MISSISSIPPI AND THE U.S., 1997

		Percent Distribution			Average Annual Wage		
NAICS Code[1]	Description	MS (1)	US (2)	Ratio (2/1)	MS (4)	US (5)	Ratio (5/4)
51	Information	3.7%	5.7%	1.52	$ 32,726	$ 42,229	1.29
52	Finance & Insurance	8.8%	10.7%	1.22	$ 29,334	$ 45,656	1.56
53	Real Estate	2.2%	3.3%	1.49	$ 15,807	$ 24,733	1.56
54	Prof, Scien, & Tecs Services	5.8%	9.9%	1.72	$ 30,467	$ 43,162	1.42
55	Mgmt. Of Companies & Enterprises	2.7%	4.7%	1.75	$ 37,384	$ 58,887	1.58
56	Admin. Support, Waste Mgmt. Services[2]	10.1%	13.6%	1.34	$ 15,291	$ 18,692	1.22
61	Educational Services	0.2%	0.6%	2.92	$ 13,049	$ 19,897	1.52
62	Health Care & Social Assistance	32.7%	25.1%	0.77	$ 25,784	$ 27,888	1.08
71	Arts, Entertainment, & Recreation	6.0%	2.9%	0.49	$ 17,163	$ 20,651	1.20
72	Accomodations & Food Services	22.3%	17.5%	0.79	$ 9,601	$ 10,264	1.07
81	Other Services	5.6%	6.0%	1.09	$ 17,044	$ 20,122	1.18
	TOTAL	100%	100%				
	Total Number (Thousands)	380.9	54,038.1		$ 21,024	$ 25,726	

Also, total average wage all industries was $21,644 in MS and $27,028 in the U.S.

The total employed in all industries was 868,077 in MS and 100,892,049 in the U.S.

[1] See footnote 1 in text for explanation of NAICS codes.

[2] Admin. Support, Waste Mgmt. Services includes such industries as employemt services, business support services, travel agencies, security, services to buildings and dwellings, and waste management

SOURCE: U.S. Census Bureau, 1997 Ecomomic Census, www.census.gov/epcd/www/97EC_MS.HTM, www.census.gov/epcd/www/97EC_US.HTM

Implications

Mississippi's service sector is much more heavily concentrated in health care, amusements & recreation and hotels & accommodations than is true for the rest of the nation. Continued growth of these industries will have a positive impact on employment in the state. Growth of the health care industry will be especially beneficial, not only because of its higher-than-average wages, but because growth of health services will meet a need of state residents for improved medical treatment. As of 1996, only one state had fewer physicians per 100,000 population, and only 9 had fewer nurses. (Seven percent of state employment is in health services, while nationally the figure is eight percent.)

The relatively smaller percentage of persons in Mississippi employed in the more skilled, and higher-paid, services, as discussed above, is a concern. The clear implication is that there is a need to develop strategies to improve both the number and quality of jobs in services in the state. Higher levels of education and training, of course, will act to improve opportunities in services, as will a greater emphasis on research and science in both the private and public sectors of the state. But other steps can be taken by policymakers as well. One area that requires examination is that of the incentives offered to businesses for locating here or expanding

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Table 3. DISTRIBUTION AND GROWTH OF SERVICE SECTOR EMPLOYMENT 1992-1997

	1997 Distribution		Growth 1992-1997	
	MS	US	MS	US
Hotels, Rooming Houses, etc.	10.8%	5.4%	202%	16%
Personal Services	4.2%	4.0%	15%	8%
Business Services	17.4%	27.0%	70%	58%
Employment Services	7.5%	11.2%	109%	83%
Services to Buildings & Dwellings	2.5%	3.2%	45%	28%
Computer Systems Design & Related	0.4%	2.4%	23%	27%
Advertising & Public Relations	0.4%	1.0%	59%	69%
Automotive Repair, Services, and Parking	3.4%	3.5%	24%	28%
Amusement, Recreation	10.6%	4.7%	291%	-8%
Health Services	33.1%	35.0%	33%	14%
Legal Services	3.2%	3.0%	17%	3%
Selected Educational Services	5.7%	0.8%	11%	31%
Social Services	5.9%	7.0%	25%	19%
Engineering, Accounting, Research, Management, and Related Services (except noncommercial research organizations)	5.5%	9.7%	26%	30%
Total Service Sector	100%	100%	97%	56%
Number of New Jobs in These Services '92-'97	230,900	19,109,806		
Total Number of New Jobs '92-'97	214,179	13,607,855		

Data based on SIC codes - Standard Industrial Classification System. See footnote 1 in text.

SOURCE: U.S. Census Bureau, 1997 Ecomomic Census, www.census.gov/epcd/www/97EC_MS.HTM, www.census.gov/epcd/www/97EC_US.HTM.
Center for Policy Research and Planning, May 2000.

employment in the state. For what type of service industries are incentives justified? And what should those incentives be?

Are New Industry Incentives Needed?

Mississippi's original industry incentives program was designed primarily to bring more manufacturing jobs to the state. The incentives available to targeted firms locating in Mississippi include certain favorable tax provisions, access to state finance programs, customized and subsidized training programs for workers, and various forms of assistance, including research and technical assistance, provided through the Department of Economic and Community Development. In general, state incentive programs should be competitive with other states, who are also trying to attract business. Incentive programs also serve as a signal to business of a favorable business climate as well.

Manufacturing jobs have been seen as particularly desirable by industry recruiters for two reasons: first, the compensation packages are generally above average, and, second, and even more importantly, new manufacturing jobs in the state result in a positive net increase in employment and income. That is, when a manufacturing firm moves here from out-of-state, the investment dollars and the customer base are largely out-of-state--which makes for a high multiplier impact. (See appendix for a discussion of multiplier effects.) The situation is often different with retail sales jobs, for example. When a new retail store opens, it may be the case that another near-by retail store will lose some business. If this happens, the positive effect of any new retail jobs must then be balanced against the negative effects of any employment loss that occurs in other stores. With manufacturing, such negative employment effects are generally minimal.

What About the Multiplier Effect of Service Industries?

The service sector is a mix of several industries, some of which, like manufacturing, have a customer base that is largely from out-of-state and so have high multiplier effects. Examples of export-oriented service industries include film-making for national distribution, commercial airline repairs, and the staging of national conferences. Other service industries sell almost entirely to state residents, so that expansion of one service-provider may come at the expense of another.

Mississippi currently has several incentives targeted at specific service industries. Research and development jobs are subsidized by state income tax credits, as are jobs created when a company transfers its regional or national office to the state. Distributors, warehousers, wholesalers, certain telecommunications and data processing companies, air transportation and maintenance facilities, final destination or resort hotels having a minimum of 150 rooms and movie industry studios are all eligible for job tax credits on their corporate income tax, as well as access to state finance programs. Most recently, new tax provisions favorable to tourism which were just signed into effect this May. While the state has been moving towards an incentives program that includes service industries, some incentives are available only to manufacturers. For example, only manufacturers receive job training tax credits for sponsoring a retraining program through a community/junior college. In addition, some highly-mobile, desirable service sector jobs may not qualify for any of the current incentive programs.

Encouraging Export-Oriented Services

Specifically, many high- and middle-wage services that companies can market nationally do not fit under one of the categories mentioned above. For example, services provided by telephone or over the internet can serve customers anywhere. Such industries are varied, includ-

Table 4. SERVICE INDUSTRIES WITH 1% OF MS OR US PRIVATE WORKFORCE, 1997

NAICS Code*	Description	MS Percent Employed	MS Average Wage	US Percent Employed	US Average Wage
511	Publishing Industries	0.4%	$ 22,996	1.0%	$ 43,090
513	Broadcasting & Telecommunications	1.1%	$ 38,119	1.4%	$ 44,253
5133	Telecommunications	0.7%	$ 46,229	1.0%	$ 46,972
522	Credit Intermediation & related	2.4%	$ 26,626	2.7%	$ 35,966
524	Insurance Carriers & related	1.3%	$ 31,506	2.3%	$ 39,630
531	Real Estate	0.5%	$ 15,107	1.1%	$ 25,014
5411	Legal Services	0.8%	$ 36,902	1.0%	$ 48,152
5412	Accounting, Tax Return, & Payroll	0.5%	$ 19,227	1.0%	$ 27,008
5413	Architectural & Engineering	0.6%	$ 32,589	1.0%	$ 45,210
5613	Employment Services	2.3%	$ 16,256	3.6%	$ 17,153
56132	Temporary Help Services	1.4%	$ 13,333	2.6%	$ 15,408
5617	Services to Buildings & Dwellings	0.8%	$ 9,948	1.0%	$ 12,731
621	Ambulatory Health Care Services	3.8%	$ 35,935	4.4%	$ 35,314
6211	Offices of Physicians	1.5%	$ 53,314	1.6%	$ 54,086
622	Hospitals	7.2%	$ 26,285	4.9%	$ 31,582
623	Nursing & Residential Care Facilities	2.0%	$ 14,604	2.4%	$ 17,061
713	Amusement, Gambling, Recreation	2.5%	$ 17,213	1.2%	$ 14,111
7132	Gambling Industries	2.0%	$ 22,088	0.2%	$ 19,119
721	Accomodation	2.7%	$ 15,394	1.7%	$ 15,721
7211	Hotels (except casinos) & Motels	2.1%	$ 9,794	1.3%	$ 14,493
72112	Casino Hotels	1.6%	$ 18,941	0.3%	$ 22,079
722	Food Services & Drinking Places	7.1%	$ 7,434	7.7%	$ 9,070
811	Repair & Maintenance	1.1%	$ 19,923	1.3%	$ 23,406
812	Personal & Laundry Services	1.0%	$ 14,126	1.2%	$ 15,263

*See footnote 1 in text for explanation of NAICS codes.

SOURCE: U.S. Census Bureau, 1997 Ecomomic Census, www.census.gov/epod/www/97EC_MS.HTM, www.census.gov/epod/www/97EC_US.HTM

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ing technical assistance, customer service, hotlines for gambling addiction or other social problems, travel and other ticket reservations, telemarketing and the provision of data and other information. These industries can locate anywhere there are qualified workers available. Other services that can find many out-of-state customers are: software development, management consulting and training, financial services, amusement and theme parks, information processing, national conferences, engineering and architectural services, events promotions, marketing research, artwork, music, writing services, recreational services and commercial repairs.

It would make sense to gear some basic incentives to all service industries whose primary customer base is out-of-state. This would cover all the many export-oriented industries. As an example, Oklahoma's Quality Jobs Program provides financial incentives to service firms that make at least 75 percent of their sales out-of-state (Snell, p. 50). It would also be possible for the amount of credit available to vary in accordance with the percentage of out-of-state sales. Of course, such incentives must be decided within the context of overall state goals. For example, the state may wish to limit incentives to firms that pay at least the state average wage with benefits, that have high growth potential and have little or no adverse impact on the environment.

Adding Value to Manufactured Goods

In the past, Mississippi has worked to improve the value-added to its agricultural products, rather than simply exporting basic agricultural commodities. Part of today's challenge involves capturing the value-added to manufactured goods through supplying services supporting these products, from finance and accounting through marketing and computer assistance to training and product design. Manufacturing firms are increasingly out-sourcing these and other services. In the case of national firms, many of these services will be contracted out of regional or national headquarters. Mississippi must be competitive to capture such contracts.

However, tax and financial incentives alone will not ensure that the state has the personnel and amenities to attract these service industries. There is no substitute for skilled workers, good schools, a sound infrastructural system, and other basics.

Productivity-Enhancing Services

Some service industries which do not necessarily export most of their services are of particular importance to economic development because of their positive impact on productivity. Many of these services are computer-related. Demand for computer systems, software programs and computer assistance that will enhance productivity and the bottom-line is high, but needs often go unmet in the state, according to several business surveys. Several options are available for encouraging more students in this area and for rewarding businesses who have well-structured, equitable training programs in place that develop these needed skills. The targeting of specific industries, and the development of public-private partnerships, can also be effective in adding the growth of such productivity enhancing services (Goosman, pp. 9-15).

Mississippi's information technology (IT) sector is an area of particular concern. IT, which employs about 10.5 percent of the U.S. workforce, accounted for over one-third of the growth in GDP over the 1995-98 period, and 18 percent of new jobs, according to a study by Mark Zandi of Dismal Sciences, Inc. IT employment in the U.S. increased 4.1 percent during this time. The high productivity of this sector accounts for its disproportionate importance to the growth of output. The fact that the state only has 5.5 percent of total employment in IT may help to account for the slowing growth rate here in comparison to the nation as a whole. Focus on this sector would have a positive impact on the state.[2]

NCSL Recommendations

A review of state incentive programs by the National Conference of State Legislatures makes several recommendations, designed to balance the need to compete to attract investors with the need to provide a solid basis for economic growth, which depends on the quality of the labor force and of the resources of the state. These recommendations, with slight modifications, include:

- Take a broad view of the state's business climate, including consideration of such variables as the educational attainment of the labor force, the availability of capital, physical infrastructure, the quality of training programs available, and the stability of public finances.
- Establish equitable, general criteria for economic development incentives, but with sufficient flexibility to meet unpredictable business needs. Arizona, for example, has an economic development commission that must put on public record its reasons for making assistance grants of more than $1 million (Snell p. 47).
- Make incentives dependent upon performance.
- Evaluate the effectiveness of existing incentives in light of state goals.
- Coordinate state and local incentive programs.

Conclusion

The state is currently reviewing its industry incentives program and some modifications are expected

in light of the growing importance of the service sector in economic development. Data presented above confirm that services-producing industries and the service sector proper will account for most new jobs in the state. Services whose customer base is largely out-of-state have a high multiplier effect, comparable to that of manufacturing firms, and the argument for access to incentive programs similar to those available to manufacturers is strong. At the same time, the state may wish to target only the higher-wage, nationally oriented service industries.

Service industries that enhance productivity, and these are largely technical and scientific services, would also benefit from well-formulated programs. The development of public-private partnerships and other such initiatives will generally be more effective than changes in the tax code alone. In individual cases, the targeting of particular industries by such partnerships can ensure a more successful development path. Telecommunications, or the remote sensing industry in southern Mississippi, are examples of potential target industries where studies and dialogue can help anticipate and overcome hurdles that may slow the growth of what the state has determined is a desirable industry.

Endnotes

1. With the dramatic growth of services in the United States and globally, a new industrial classification system, the North American Industry Classification System (NAICS) is being developed to replace the decades-old Standard Industrial Classification (SIC) . The first study providing data under the new industry groupings has just been released by the U.S. Census Bureau, using information collected for 1997. This data provides more detailed information on several industries. Over 350 new industries and 9 new service industry sectors are listed. There is more detail provided on services in particular: 250 of the new industries are in service sectors. For example, a new *Information* sector combines communications, publishing, motion picture and sound recording and online services. Changes are substantial even in non-service industries: no NAICS sector has the same subsector classification groupings or detailed industries as its SIC predecessor. For example, construction has 3 (out of 28) industries that are new and 14 that are revised, and it is the least-changed sector. Accordingly, comparisons over time are not possible for many of the newly defined industries. For more information, go the the U.S. Bureau of the Census website at www.census.gov and clicks on NAICS.

2. Information technology was defined in this study to include industries whose share of employment in IT occupations such as engineers and computer operators was greater than seven percent and also industries in which more than 25 percent of equipment is information processing equipment. About 28 percent of IT industries are manufacturing industries. Mississippi and Hawaii were the only states in the study that did not see an increase in employment in information technologies over the 1995-98 period.

References

Goosman, W. *Learning How to Compete*, Issue paper No. 5, Denver: National Conference of State Legislatures, 1995.

Snell, R. *A Review of State Economic Development Policy*, Denver: National Conference of State Legislatures, 1998.

Zandi, M. "Information Economy I", *Regional Financial Review*, West Chester, PA: RFA, September 1999.

Appendix -- The Multiplier Effect

Robert Neal

Personal income and employment figures illustrate only a part of the impact an industry has on the local economy. Industries are interdependent. One industry purchases inputs from other industries and households (i.e. labor) then sells outputs to other industries, households, and government. Therefore, economic activity in one sector impacts other sectors.

The economic impacts an industrial sector has on an economy can be categorized as direct, indirect, or induced. Direct effects are those due to the actual production of goods and services. Direct effects are output generated, jobs created and income earned by those actively involved in the production process.

Indirect effects occur when the targeted industry buys inputs from other sectors. For example, when a firm purchases steel, chemicals, or accounting services, income and employment are created in sectors involved in producing and delivering these inputs. The additional income and employment in these other sectors can be attributed to the economic activity in the targeted industry. Thus, income and jobs are created not only in this industry, but also in other economic sectors that are linked to this industry.

Additional employment and income earned by industries and their input suppliers allows these households to increase their consumption. That is, as jobs and income increase, people buy more goods and services. Industries expand to provide these additional goods and services, spawning even more jobs and greater income in the economy. The new jobs and income created to meet this increasing consumer demand are considered to be an induced effect.

Although a business expansion example has been described above, the effect is the same (although negative) in the case of a business contraction or downsizing. The point of all this is that an initial change of $1 in sales of a local industry will result in more than a $1 total change in economic activity in the local or regional economy.

IMPROVING MISSISSIPPI'S LABOR FORCE PARTICIPATION RATE

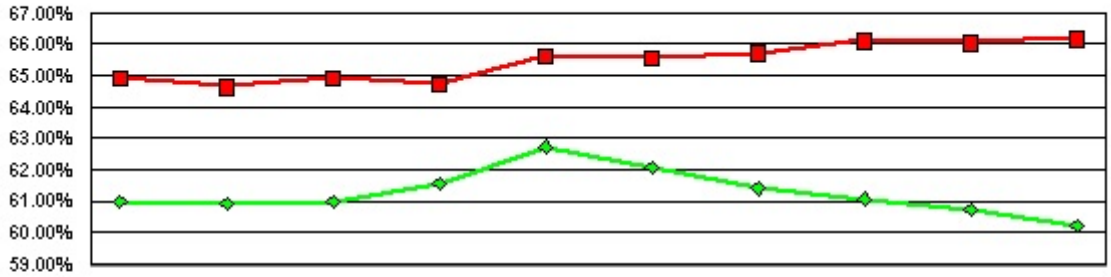
Christian Pruett

Since 1990, employment in Mississippi has increased 10.3 percent, slightly behind the U.S. rate of 12.4 percent. During the same time, the civilian labor force, the sum of those who are employed and those who are looking for a job, increased 7.5 percent in Mississippi, compared to the national growth rate of 10.7 percent. While both employment and the civilian labor force have exhibited strong growth in the state, the labor force participation rate, which measures the percentage of the population working or looking for work, fell from 61.1 percent in 1990 to 60.3 percent in 1999. In contrast, the national participation rate increased slightly from 65.0 percent to 66.2 percent over the same time period. Given Mississippi's economic success during the 1990s, it would seem that the state's labor force participation rate should be increasing, not declining. This article examines the forces driving the decline in Mississippi's labor force participation rate, and makes recommendations for improving the participation rate.

Labor Force Participation in the 1990s

The labor force participation rate is the percentage of the working age population who are either employed or looking for a job. The Bureau of Labor Statistics defines the working age population as that portion of the population that is age sixteen and over. According to Figure 1, the participation rate peaked in 1994, then declined by approximately 2.4 percent from 1994 to 1999. The U.S. participation rate increased steadily from 1993 to 1999, an increase of 1.4 percent. A declining participation rate often leads to a reduction in the standard of living for an area. Since fewer people are participating in the labor force, the size of the workforce, or even the potential workforce, is diminished. A reduction in the number of people working leads to reduced income and output in an economy, an undesirable situation. Why did the percentage of people participating in the labor force in Mississippi decline? Unfortunately, we cannot assign causality to just one variable. Recent declines in manufacturing employment are one factor affecting the trend in the participation rate. Other variables which statistical analysis confirms are significant include: the unemployment rate, the percentage of the population living in rural areas, the percentage of nonwhite population and education levels. The appendix provides data on these variables.

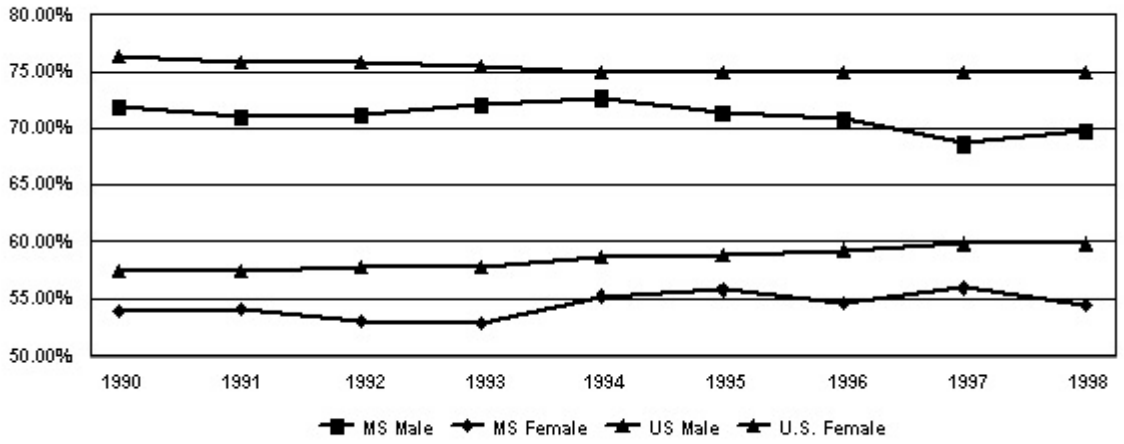
Figure 1. Participation Rates for Mississippi and the U.S.



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
US	65.0%	64.7%	64.9%	64.8%	65.7%	65.7%	65.8%	66.2%	66.1%	66.2%
MS	61.1%	61.0%	61.0%	61.5%	62.7%	62.1%	61.4%	61.1%	60.7%	60.3%

SOURCE: U.S. Bureau of Labor Statistics

Figure 2. Participation Rates by Gender for Mississippi and the U.S.



SOURCE: U.S. Bureau of Labor Statistics

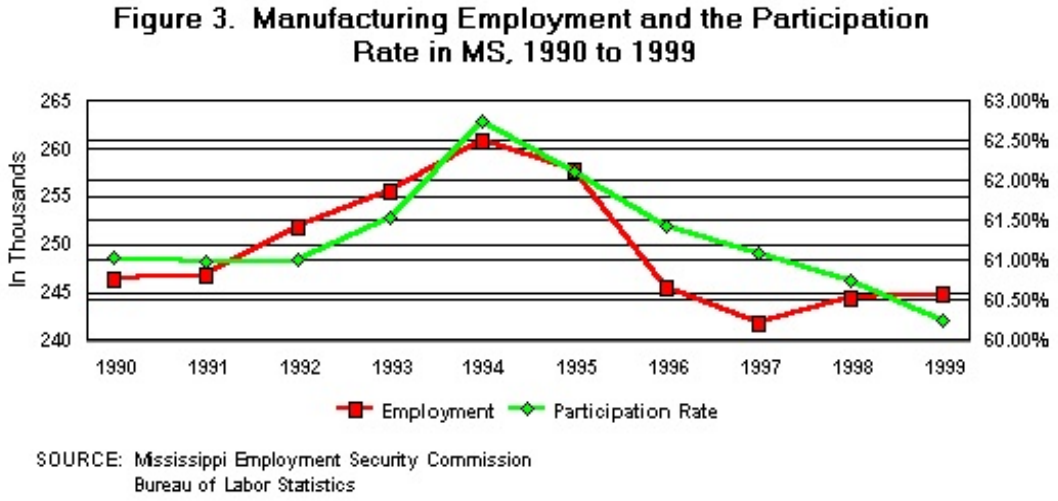
F
ewer Women Entering the Workforce

Figure 2 provides the labor force participation rates for Mississippi and the U.S. by gender. The participation rate among Mississippi women increased slightly from 53.9 percent in 1990 to 54.6 percent in 1999, while the male participation rate fell from 72.0 percent to 69.7 percent. At the national level, a higher percentage of women in the U.S. entered the workforce, 57.5 percent in 1990 and 59.9 percent in 1999, while the participation rate of males in the workforce declined from 76.4 percent to 74.9 percent during the 1990s. The higher participation rate for U.S. women led to an increase in the overall participation rate. In Mississippi, the increasing participation rate among women was not strong enough to offset the loss of males in the workforce.

Manufacturing's Influence

The manufacturing industry has been shrinking, as smoke stacks give way to service industries. The trend has been going on for some time nationally and is taking place in Mississippi as well. Manufacturing employment has been falling in the state since 1994. A larger proportion of the workforce is employed in manufacturing in Mississippi than in the United States. The state's greater dependence on the declining manufacturing industry has contributed to the declining participation rate. Among Mississippi counties, those with the highest share of employment in manufacturing suffered the most dramatic decreases in the participation rate. When a manufacturing plant closes, and no new jobs are created, the participation rate falls. In Mississippi, new jobs have been created, but not necessarily in those counties where the manufacturing plants have closed. Workers who have lost their jobs may have chosen to leave the workforce rather than relocate, thus driving the participation rate downward.

Figure 3 reveals a parallel trend between manufacturing employment and the participation rate. The manufacturing industry lost a total of 16,100 jobs between 1994 and 1999. The majority of these jobs were lost in the apparel industry (15,200 or 94.0 percent). That this particular industry could account for much of the declining participation rate is true for two reasons: first, many of these jobs were located in rural areas and second, many of those laid off were female. In rural areas where alternative jobs opportunities are scarce, many workers may elect to leave the workforce rather than relocate, especially if they are near retirement age. Furthermore, the jobs available to these workers outside of the area may not pay sufficient wages to justify a costly move. Being female has the potential to further inhibit relocation. The apparel



workers laid off may have been married. If their husbands' job appeared secure, there would generally not be sufficient incentive to relocate. The need for adequate childcare also inhibits relocation. Nearness to family members, who can help not only with childcare, but also with living arrangements and transportation, is also a factor in low-income households, particularly those headed by women.

Education Levels

Education, or the lack thereof, plays a critical role in the participation rate[1]. Much of the growth in Mississippi during the 1990s has been in the service sector, with many of the new jobs created requiring strong reading, writing, and mathematical skills. In many areas of Mississippi, education and skill levels are not strong enough to meet the demands of these new jobs that are being created. According to an analysis performed by Logue (1998), the higher the education level, the higher the participation rate. Census data show that those with a high school diploma had a participation rate of 78.2 percent, and those with a bachelors degree or higher had a participation rate of 89.5, compared to those without a high school diploma with a rate of 69.6 percent. Illiteracy is also higher in Mississippi than in the U.S., while the rural areas in Mississippi have the lowest literacy rates in the state. Differences in education levels between the U.S. and Mississippi account for some of the gap in the participation rates.

Unemployment and Nonwhite Population

The inability to find jobs often lessens a person's willingness to enter the labor force. While unemployment in Mississippi decreased during the 1990s from the 1990 rate of 7.5 percent, the state's 1999 unemployment rate of 5.1 percent was slightly higher than the U.S. rate of 4.2 percent. A relatively high unemployment rate is also indicative of a larger problem, underemployment. The underemployment rate not only counts those unemployed, but also (1) those working part-time but who want to work full-time; (2) those who want to work but have been discouraged from searching by their lack of success; and (3) others who are neither working nor seeking work at the moment but indicate that they want and are able to work and have looked for a job in the past twelve months[2]. The Center for Policy Research and Planning

Table 1. **Underemployment Rates for 18-35 Year -Olds, Mississippi and U.S., 1999**

	United States	Mississippi
White Males	9.7%	7.8%
White Females	11.7%	11.1%
Black Males	23.3%	27.0%
Black Females	21.9%	31.2%
All Males	12.0%	14.9%
All Females	13.5%	18.9%

SOURCE: See text for definition of underemployment. The underemployment rates were estimated using data on national and state underemployment rates in 1997, from The State of Working America, by Mishel, Bernstein, and Schmitt, pp. 222, 345.

estimated the overall underemployment rate to be 9.2 percent in the state, compared to the U.S. rate of 8.9 percent. In order to determine the underemployment rate for men and women, a pooled group aged 18-35 was used as this was most recent data available. For men and women aged 18-35 in Mississippi, underemployment rates are even higher at 14.9 percent and 18.9, respectively. On the national level, the underemployment rates for the same age group were 12.0 percent for males and 13.5 percent for females. Table 1 extends the analysis to show the underemployment rates by race and gender for Mississippi and the nation. The underemployment rates among nonwhites are higher than those of whites. Since Mississippi has a higher percentage of nonwhite population, this accounts for some of the gap in the underemployment rates between the U.S. and Mississippi.

Policy Implications

Steps can be taken to improve labor force participation rates and reduce unemployment and underemployment[3]. The above analysis indicates that the primary driver in improving the participation rate in Mississippi is education. The rural areas tend to have lower education levels than the rest of the state. Many of the displaced workers in the state cannot find jobs due to a lack of skills needed to meet industry demands. Unemployment and underemployment are also directly linked to a lack of education. The key to success in raising the participation rate and the quality of life in Mississippi, then, will be to raise education levels.

Endnotes

[1] For more detailed analysis, see "Education Counts in Mississippi", by Barbara Logue in the February 1998 issue of *Mississippi's Business*, which is published monthly by the Center for Policy Research and Planning.

[2] See Mishel, Bernstein and Schmitt, "*The State of Working America, 1998-1999*", Ithaca: Cornell University Press, 1999. p. 221

[3] For more detailed analysis, see "Unemployment in Mississippi: Suggestive Data from the 1990 Census", by Barbara Logue in the June 2000 issue of *Mississippi's Business*.

APPENDIX TABLE 1. COUNTY LEVEL DATA

Correlation coefficients were calculated between labor force participation rates by county and the variables listed. The coefficients for each were significant.

	1998 Part. Rate	1999 Unemp	1990 Rural	1997 Nonwhite	1990 Disabled	1990 Completed H.S.	1997 Income
Adams	67.76%	8.40%	45.00%	51.00%	4.87%	67.30%	$18,226
Alcorn	73.08%	6.80%	62.70%	12.20%	5.53%	56.30%	$18,049
Amite	65.97%	4.30%	100.00%	47.30%	4.91%	57.10%	$12,483
Attala	70.75%	9.20%	62.20%	41.60%	5.51%	51.40%	$16,044
Benton	66.08%	6.10%	100.00%	41.30%	5.18%	46.40%	$13,741
Bolivar	71.04%	8.80%	50.40%	64.30%	8.07%	54.90%	$15,442
Calhoun	75.82%	6.30%	100.00%	28.70%	5.56%	52.80%	$15,881
Carroll	73.13%	5.50%	100.00%	41.90%	3.57%	54.00%	$14,454
Chickasaw	77.46%	9.10%	60.40%	40.80%	5.11%	52.90%	$16,775
Choctaw	58.99%	6.80%	100.00%	32.00%	4.68%	57.60%	$13,479
Claiborne	46.77%	10.60%	100.00%	82.70%	6.05%	58.70%	$12,702
Clarke	79.16%	5.70%	84.40%	36.40%	3.75%	61.60%	$14,837
Clay	70.47%	9.10%	59.80%	55.40%	4.40%	60.40%	$16,125
Coahoma	68.24%	10.40%	37.70%	66.20%	8.12%	54.00%	$17,028
Copiah	62.11%	7.90%	64.30%	52.40%	5.37%	61.10%	$14,426
Covington	80.40%	5.90%	84.60%	37.10%	5.50%	55.50%	$16,121
De Soto	80.32%	2.90%	47.00%	14.40%	1.25%	71.20%	$23,125
Forrest	68.74%	3.60%	24.10%	33.50%	3.20%	72.10%	$17,986
Franklin	67.17%	7.60%	100.00%	38.20%	4.49%	58.10%	$13,074
George	72.22%	7.70%	84.30%	11.00%	2.59%	58.80%	$14,311
Greene	69.18%	7.30%	100.00%	25.00%	3.25%	62.40%	$13,160
Grenada	73.66%	5.90%	49.60%	43.60%	4.81%	56.50%	$17,199
Hancock	68.27%	3.70%	39.90%	10.60%	2.45%	68.00%	$16,655
Harrison	71.85%	3.90%	15.70%	24.70%	3.09%	74.70%	$20,285
Hinds	78.78%	4.10%	13.30%	53.80%	3.31%	75.20%	$22,186
Holmes	60.98%	11.30%	86.80%	76.20%	9.81%	48.00%	$12,884
Humphreys	74.55%	11.10%	79.10%	69.60%	8.11%	46.40%	$15,444
Issaquena	72.95%	13.40%	100.00%	58.50%	5.37%	43.70%	$11,505
Itawamba	84.11%	5.50%	83.10%	7.40%	2.22%	49.00%	$17,538
Jackson	77.37%	3.90%	19.60%	23.50%	1.62%	74.40%	$18,523
Jasper	72.85%	5.10%	100.00%	52.80%	5.92%	60.00%	$14,797
Jefferson	49.70%	16.70%	100.00%	86.80%	11.26%	53.00%	$10,729
Jeff Davis	58.70%	10.70%	100.00%	56.90%	4.76%	57.40%	$13,603
Jones	75.97%	3.40%	63.80%	26.90%	4.48%	64.30%	$19,046
Kemper	67.39%	9.30%	100.00%	58.90%	5.49%	56.30%	$14,694
Lafayette	67.57%	1.90%	68.60%	29.60%	2.24%	70.20%	$16,761
Lamar	72.98%	2.80%	73.40%	13.70%	2.05%	73.30%	$17,689
Lauderdale	72.55%	5.80%	42.40%	37.20%	4.16%	69.70%	$20,467
Lawrence	71.35%	5.80%	100.00%	35.40%	4.68%	61.90%	$15,372
Leake	78.63%	4.90%	79.30%	41.80%	4.93%	54.30%	$16,787
Lee	83.59%	4.20%	46.90%	23.40%	2.94%	67.80%	$21,802

APPENDIX TABLE 1. COUNTY LEVEL DATA, CONT'D

	1998 Part. Rate	1999 Unemp	1990 Rural	1997 Nonwhite	1990 Disabled	1990 Completed H.S.	1997 Income
Leflore	69.73%	9.10%	49.40%	62.80%	7.35%	55.30%	$17,487
Lincoln	68.90%	5.00%	66.20%	32.10%	4.11%	63.00%	$16,637
Lowndes	70.35%	7.70%	55.00%	39.90%	3.29%	69.00%	$18,326
Madison	76.58%	3.10%	42.00%	46.90%	2.58%	71.50%	$21,990
Marion	65.59%	6.00%	73.30%	32.30%	5.07%	58.80%	$14,693
Marshall	66.15%	5.80%	76.10%	52.80%	5.12%	51.70%	$15,709
Monroe	68.26%	10.40%	61.90%	32.30%	3.16%	55.60%	$15,499
Montgomery	73.17%	6.30%	53.90%	45.80%	5.71%	56.60%	$15,787
Neshoba	99.30%	3.80%	72.80%	33.50%	4.05%	60.90%	$18,181
Newton	63.19%	5.40%	81.80%	34.60%	4.11%	60.10%	$16,906
Noxubee	62.10%	10.40%	100.00%	70.10%	9.96%	49.60%	$14,138
Oktibbeha	70.72%	2.70%	51.90%	40.20%	3.55%	73.00%	$15,772
Panola	69.65%	8.60%	78.70%	50.40%	5.45%	54.30%	$14,890
Pearl River	67.35%	4.20%	65.60%	16.30%	3.23%	68.40%	$14,760
Perry	64.15%	7.00%	100.00%	25.20%	4.18%	61.80%	$12,647
Pike	70.02%	5.00%	68.60%	48.00%	6.02%	60.60%	$16,177
Pontotoc	84.49%	3.90%	79.40%	16.40%	2.52%	57.40%	$16,014
Prentiss	80.58%	7.40%	58.50%	13.70%	3.49%	52.90%	$15,071
Quitman	61.71%	10.80%	100.00%	61.00%	10.54%	45.50%	$13,323
Rankin	79.68%	2.20%	45.50%	19.20%	1.57%	73.80%	$22,478
Scott	82.40%	4.30%	65.70%	40.40%	4.51%	53.10%	$18,500
Sharkey	69.61%	13.00%	100.00%	68.30%	8.18%	51.30%	$12,525
Simpson	67.44%	9.80%	84.90%	34.40%	4.55%	58.00%	$18,943
Smith	63.86%	3.80%	100.00%	23.80%	4.09%	57.00%	$18,030
Stone	61.91%	5.00%	70.40%	25.00%	3.32%	68.10%	$15,747
Sunflower	48.82%	11.90%	54.30%	67.50%	4.60%	49.20%	$12,484
Tallahatchie	61.81%	12.40%	100.00%	60.60%	9.17%	48.20%	$12,936
Tate	72.27%	4.40%	77.70%	37.70%	3.08%	61.00%	$18,038
Tippah	75.13%	6.40%	72.50%	18.50%	5.63%	54.40%	$15,884
Tishomingo	85.67%	11.30%	82.30%	4.50%	2.96%	55.00%	$15,784
Union	84.21%	3.80%	69.30%	16.20%	3.13%	57.30%	$17,412
Walthall	71.59%	6.10%	100.00%	44.90%	6.33%	55.00%	$13,658
Warren	86.11%	5.00%	56.30%	41.80%	3.34%	67.70%	$21,733
Washington	73.34%	9.30%	18.80%	60.20%	6.63%	58.80%	$16,720
Wayne	73.35%	6.80%	73.60%	38.20%	5.84%	56.10%	$16,065
Webster	70.07%	4.70%	100.00%	24.00%	4.83%	58.60%	$15,158
Wilkinson	64.05%	10.20%	100.00%	69.40%	8.84%	48.30%	$13,662
Winston	67.68%	7.60%	63.10%	44.80%	3.83%	59.10%	$15,852
Yalobusha	70.69%	5.80%	70.00%	40.00%	6.31%	55.70%	$16,997
Yazoo	63.81%	8.20%	51.30%	55.00%	6.20%	53.40%	$16,514

SOURCE: Mississippi Employment Security Commission
U.S. Department of Commerce, Bureau of the Census
Center for Policy Research and Planning