

Trends in Mississippi Earnings

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Measuring the progress of an economy can be a tricky undertaking. Due to timely reporting, employment is an often used measure. But the recent “jobless recovery” revealed that it is possible to have economic activity that does not produce jobs. Total output is a great measure, but with an 18-month lag in the data, it’s not very timely. Earnings offer a reasonable compromise.

To gain some historical perspective on the state economy relative to its regional and national counterparts, the recently updated earnings data from the Bureau of Economic Analysis are examined. The updated data reflects the North American Industry Classification System (NAICS). Prior to this update, researchers were limited to 2001 onward for NAICS data. Before 2001, the Standard Industrial Classification (SIC) System was used. With the continuous series now available, we can discuss the industrial shifts in earnings that have occurred in Mississippi since 1990.

The State’s Expanding Economy

In 1990, total nonfarm earnings in the state were \$23.6 billion. By 2005 that figure had grown to \$33.5 billion after adjusting for inflation. This \$9.9 billion increase is one way of measuring the expansion in the state’s economy. The economy, as measured by real earnings, expanded 42.1% or 2.4% compounded annually over 15 years. This level of growth closely follows that of the U.S. which expanded 2.5% compounded annually during the same period. The southeastern U.S., however, grew at a noticeably faster rate of 2.9% per year.

Figure 1 below identifies when the state’s expansion occurred. The figure shows cumulative growth since 1990. The striped block is the increased earnings in the current year over the prior year. The solid block is the cumulative growth net of the current year’s addition. For example, in 2005 the \$9.9 billion increase during this fifteen-year period is shown by the \$9.8 billion accumulated between 1990 and 2004 (the solid block) and the \$102 million added in 2005 (the striped block). Together these two blocks show the cumulative growth in earnings between 1990 and 2005. It is evident from this graph that the largest expansion of the state’s nonfarm earnings occurred between 1992 and 1994, when the initial growth of the gaming industry occurred. Additional expansion occurred in 1997 and 1998 as further expansions in the gaming industry and related accommodations

took place. The gradual improvement from the 2001 recession is also apparent as is the negative effect of Katrina.

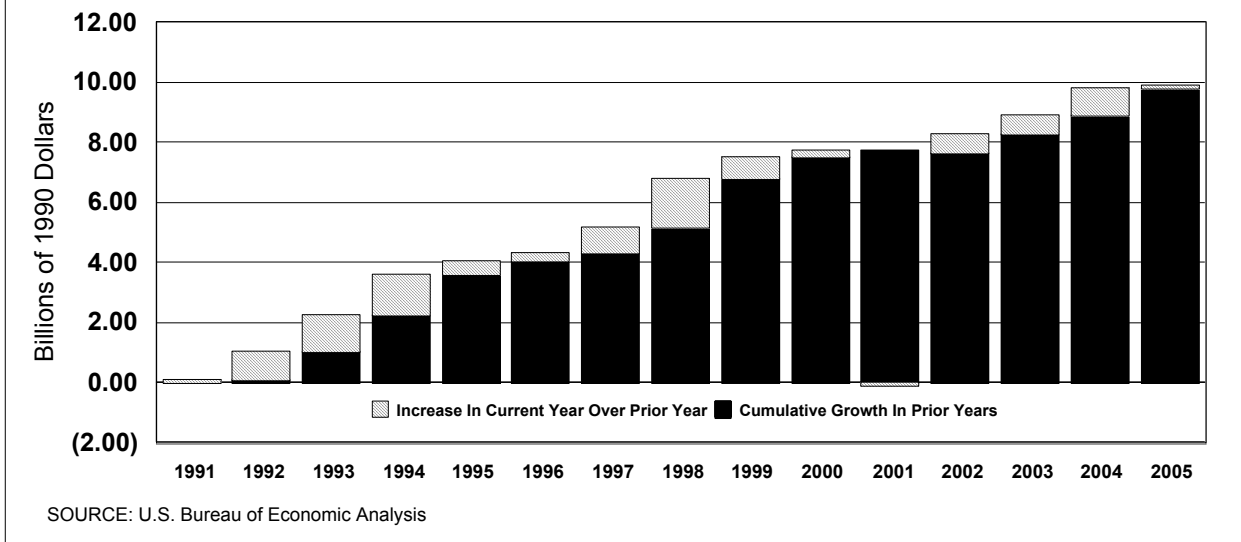
Structural Changes

The most significant structural change occurring in Mississippi between 1990 and 2005 has been the shift away from the manufacturing sector. This is evident in Figure 2, which depicts historical trends for the four largest Mississippi industries. These four industries comprised 63% of the total nonfarm earnings produced in Mississippi in 2005.

In the early 1990s the manufacturing industry and the government sector were the state’s largest sources of earnings. Manufacturing’s role began to wane in the mid 1990s and again between 2000 and 2002. By 2005, inflation-adjusted earnings for the manufacturing sector in Mississippi were only slightly above the 1990 level. Throughout the fifteen year period, earnings in the government sector rose steadily. Beginning in 1995, government earnings exceeded manufacturing earnings and the earnings gap has widened almost every year since.

Figure 3 contrasts the 1990 Mississippi earnings by source with those of 2005. In 1990, manufacturing comprised almost 24.0% of the nonfarm earnings in the state; by 2005 it made-up only 17.0%. With manufacturing share of the total declining, most other sectors increased in relative importance, but a few

Figure 1. Growth in Real Earnings in Mississippi, 1991-2005



sectors experienced particularly noticeable gains. The health care and social services went from 7.4% of the state's total nonfarm earnings to 9.8%. The aging population, along with shifts in the way health care is provided (i.e. the rise of the Health Maintenance Organization, HMO), contributed to this trend. Accommodation and food services comprised less than 2.0% of the state's nonfarm earnings in 1990 but by 2005 made up 4.2%. This industry benefited tremendously from the introduction of the gaming sector to the state's economy.

Sources of Growth

Figure 4 shows which industries were driving the increase in Mississippi's earnings from 1990 to 2005, along with similar data for the U.S. and the southeastern states. In Mississippi, the growth was highly concentrated in a few industries, in comparison to the region and the nation.

As indicated in the figure, 27 cents out of every inflation adjusted dollar gained in earnings in Mississippi between 1990 and 2005 was generated by the government sector. This sector was largest single source of gains in earnings in Mississippi and at the national and regional levels. However, in the U.S., the government sector accounted for only 14 cents out of every new dollar generated be-

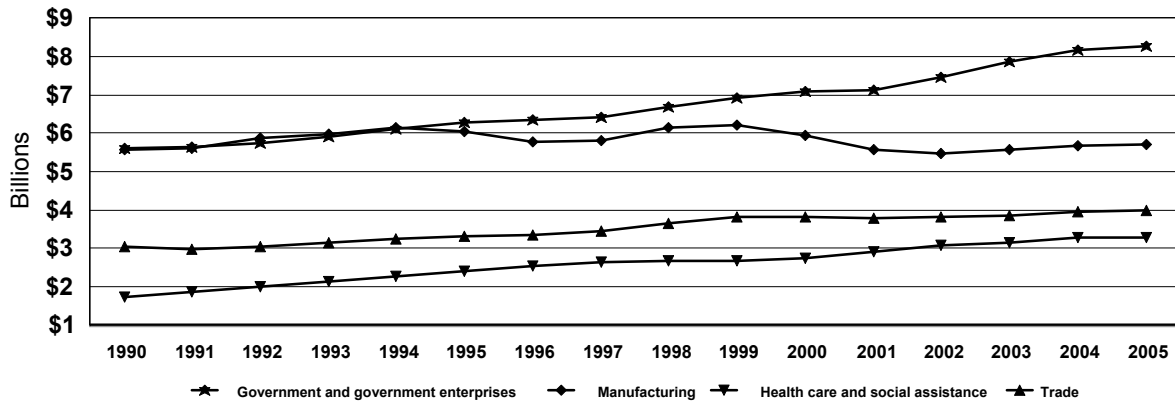
tween 1990 and 2005 and in the region, the share was 15 cents. One reason the government sector has contributed such a large portion of the earnings in Mississippi has been the relative poor performance of other sectors.

The majority of the increased government earnings can be traced to increased local government earnings. To see this more clearly, we disaggregate the 27 cent increase in Mississippi government earnings into its various components: local government accounted for 14 cents; state government accounted for 6 cents; federal military spending accounted for 4 cents; and civilian federal spending for 3 cents. The data do not permit a further disaggregation; however, the majority of the increased local expenditures occurred during a period when the state was increasing teacher salaries.

The second largest source of earning growth in Mississippi came from health care and social assistance (16 cents) followed by accommodations and food services (9 cents) and construction (8 cents).

Between 1990 and 2005, government, health care, accommodation and food services and construction accounted for 60 cents of every additional dollar coming into the state. These industries were also significant contributors to the gains at the national and

Figure 2. Real Earnings for Major Industries in Mississippi
1990 = 100



SOURCE: U.S. Bureau of Economic Analysis

regional levels, but at the U.S. level they accounted for only 35 cents out of every new dollar and at the southeast level 38 cents.

The government and food service industries are especially important in rural areas of the state. There they can serve as a stabilizing force when an area is in decline.

Mississippi differs substantially from both the U.S. and the region in the growth of professional and technical services. In the U.S. and the southeast region, this industry accounted for 12 cents out of every new dollar generated between 1990 and 2005. But in Mississippi the industry accounted for only 7 cents of each new dollar. We see a similar pattern when looking at the finance and insurance industry. This industry has experienced tremendous restructuring over the past several years. Mississippi has tended to lose jobs and earnings as a result of this restructuring.

Identifying the Fast-Growth Industries

Figure 5 allows the reader to compare growth rates by industry from 1990 to 2005 for the U.S. the region and the state. The industries are ranked by national growth rate, allowing the reader to readily identify the fastest-growing industries. Notice that the sectors growing most rapidly nationally are also the fastest-growth industries regionally. The southeast region, however, out-performed the nation in these sectors while the

state’s growth rate was generally slower than the Nation’s.

The real estate and rental and leasing industry was the fastest growing industry at the national and regional levels. The strong gains in this industry were the result of the housing boom. The relative sluggish growth for the state is a product of Katrina, which affected the 2005 data.

The second-fastest growing industry nationally was administrative and waste services. This sector includes temporary employment agencies and establishments performing routine support service activities for the day-to-day operations of other organizations. These activities include office administration, personnel services, collections, security, cleaning, etc. Growth for this sector in Mississippi and the southeast was noticeably slower than in the nation. The national growth far outpaced the state and region in education services, management of companies and enterprises, and finance and insurance. (Education services are primarily private enterprises; public education appears in the government sector.)

Trends in Total Earnings and in Earnings by Industry

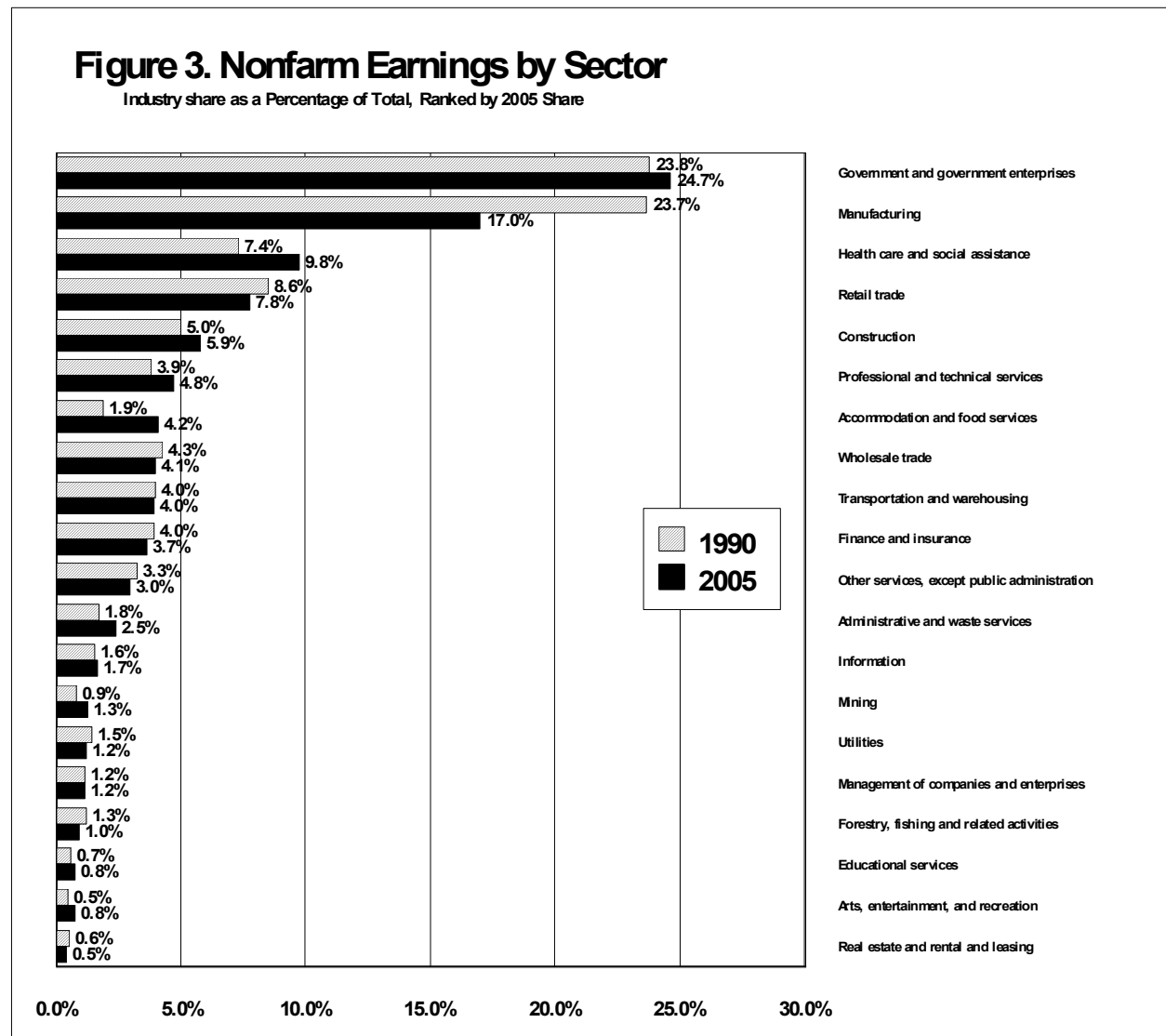
Figure 6 allows a comparison of historical trends for the nation, the region and the state. The data are inflation adjusted earnings indexed to 1990. The value for each year

shows growth relative to 1990. For example, in Figure 6, the Mississippi nonfarm earnings index was 1.42 in 2005, indicating that real earnings were 42% higher in 2005 than in 1990. The U.S. index was slightly higher at 1.45 while the southeast index was higher still at 1.54. By comparing the indices over time, paying attention to the relative slopes of the lines, trends in relative growth can be examined. Early in the mid 1990s Mississippi was outpacing both the nation and the region. This lead fell during the 2000 to 2005 period. The impact of Katrina is seen by a nearly flat index in 2005 relative to 2004. The state and the U.S. followed a similar growth path in the 2000 to 2005 period. The region, however,

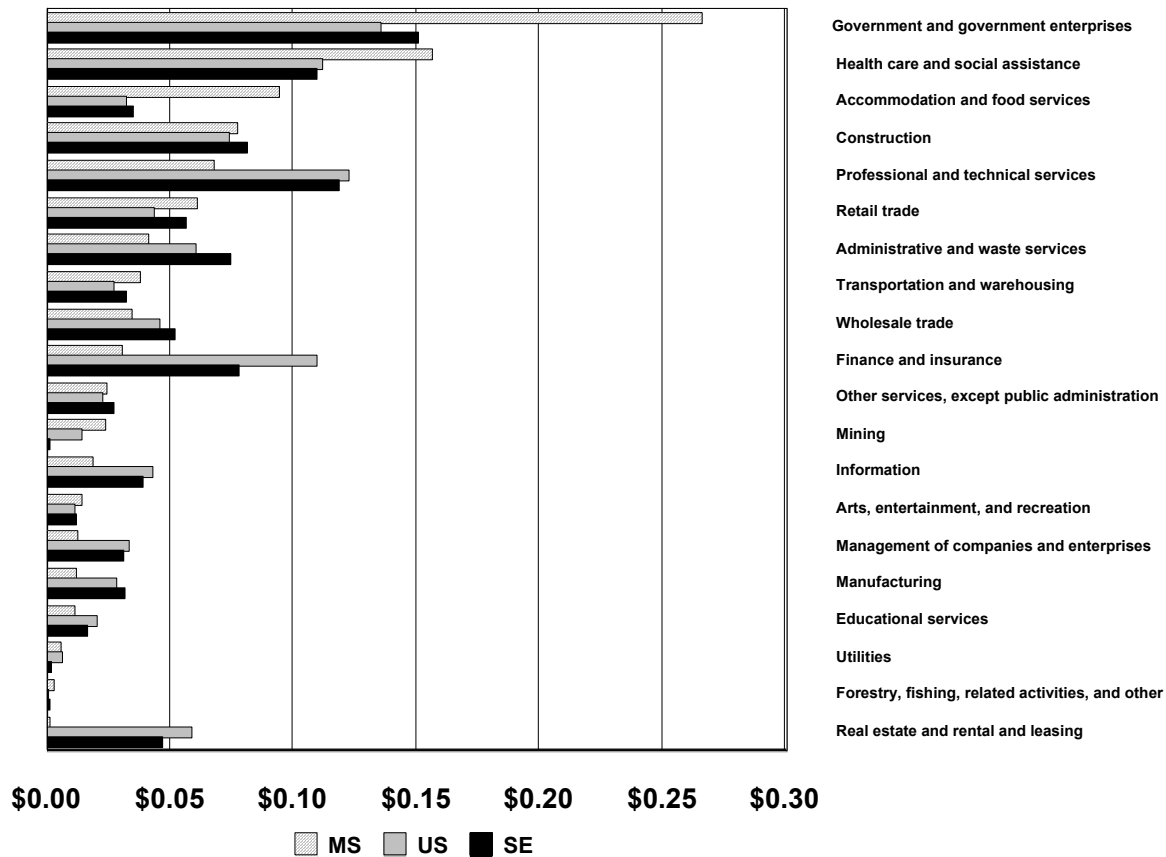
seems to have been less affected by the 2001 recession, and growth in 2004 and 2005 were very strong.

Figure 7 shows similar indices by industry, allowing comparison between the state, nation and region. A few highlights follow.

- The state outperformed the nation and the region in two gaming related industries: the arts entertainment and recreation industry and accommodation and food services.
- The state's government sector has shown strength throughout the 1990 to 2005 period. This growth has been driven pri-



**Figure 4. New Dollar of Real Earnings by Source 1990-2005
Ranked By Contribution to Growth in Mississippi Earnings**



The chart above shows the industry source for every new dollar of real earnings added to the economy between 1990 and 2005.
Source: U.S. Bureau of Economic Analysis

marily by earnings from state and local government, with local governments showing the strongest gains in the 2000 to 2005 period.

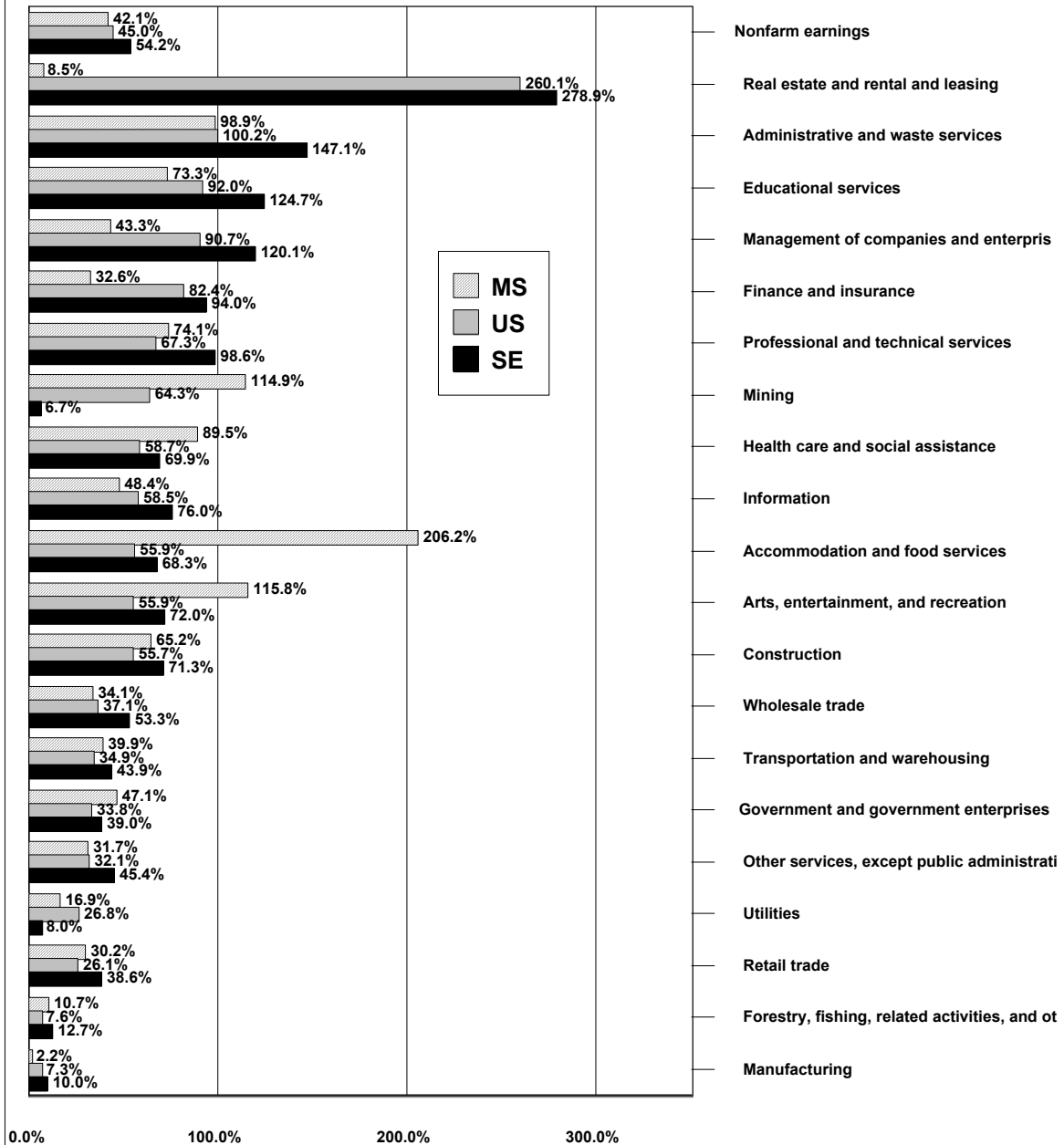
- Mississippi’s health care and social assistance sector outpaced the nation and the region for most of the 1990 to 2005 period. Several factors have likely contributed to this trend. These include a relatively less healthy population, higher levels of poverty, expansions in the Medicaid program, a greater impact of the 2001 recession (and therefore increased social assistance), and higher incidence of medical malpractice lawsuits, which leads to defensive medicine to avoid lawsuits.¹

- Like its national and regional counterparts, the Mississippi real estate and rental and leasing industry participated in a boom through 2004, but as a result of Katrina, earnings in this sector fell dramatically in 2005.
- The state’s construction sector showed greater strength than the nation in the 1990s but the industry slowed in the 2000 to 2005 period. The 2006 data will likely show a strong rebound in this sector fueled by the rebuilding efforts.
- The mining sector has been volatile in the state, but strong growth in the late 1990s positioned the industry well. Rapid

between 2003 and 2005 has further expanded this sector. Rising fuel prices along with the expansions of the lignite mining has contributed to these trends.

- Mississippi's manufacturing industry weathered the 1991 recession better than did the nation or the region. The period following this recession was characterized

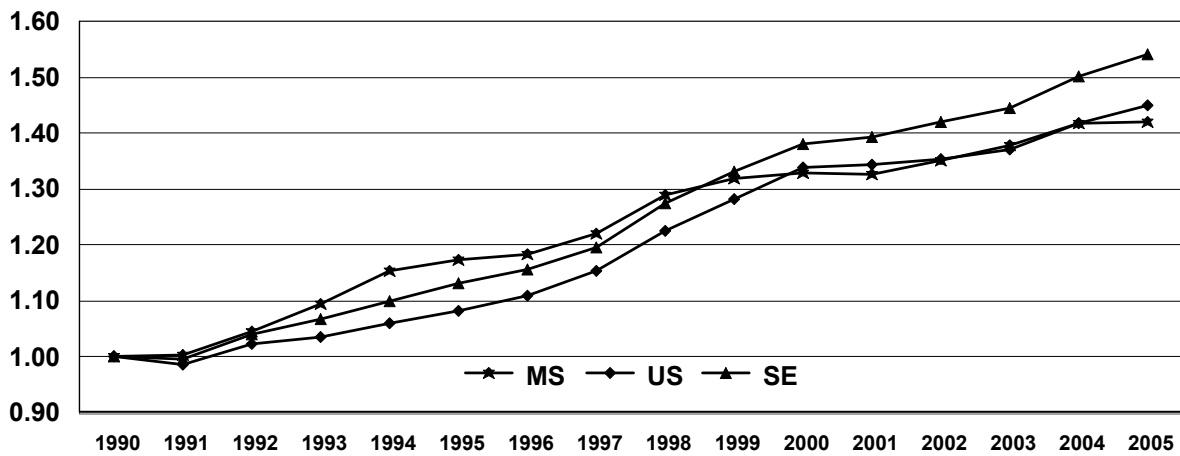
Figure 5. Growth Rates for Real Earnings By Industry, 1990-2005
Data Ranked by U.S. Growth Rate



SOURCE: U.S. Bureau of Economic Analysis

Figure 6. Total Nonfarm Earnings Index

1990 = 100



SOURCE: U.S. Bureau of Economic Analysis

by relatively fast growth in the state. This growth waned in the mid 1990s following the passage of NAFTA. While the industry saw some growth in the late 1990s, the gains were lost going into the 2001 recession and the state fared much worse than the nation and the region. The introduction of Nissan helped fuel gains in 2003 and 2004.

Summary and Conclusions

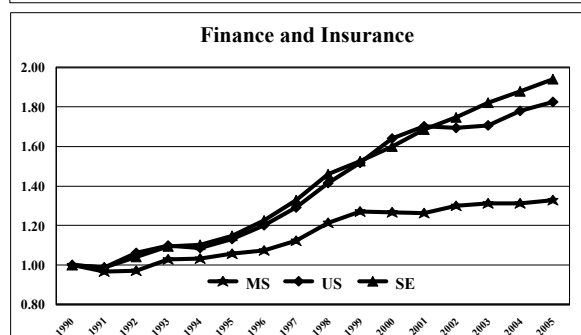
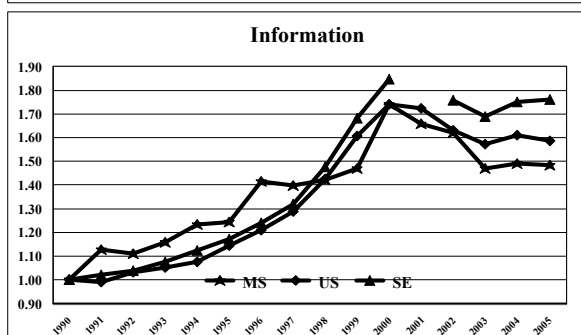
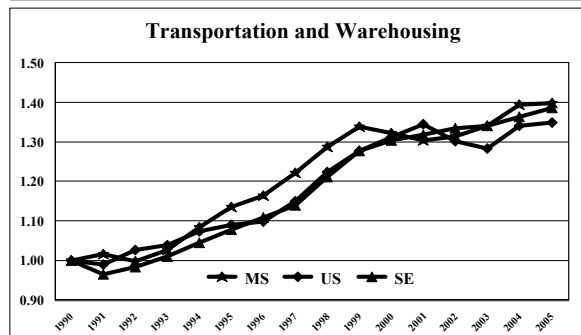
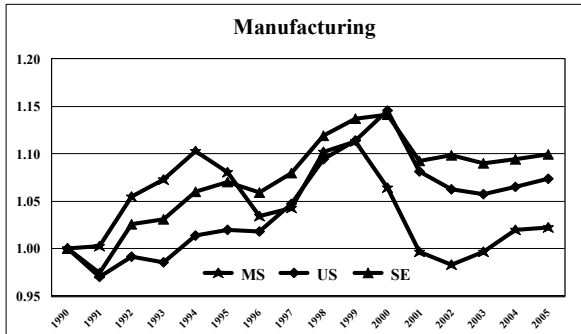
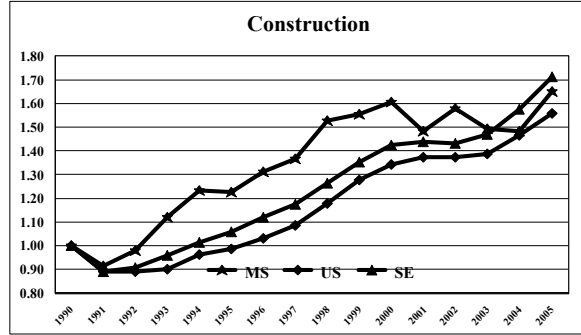
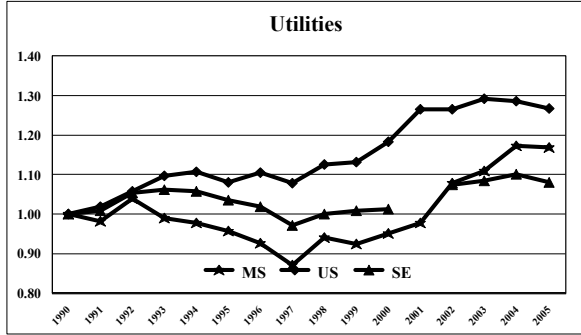
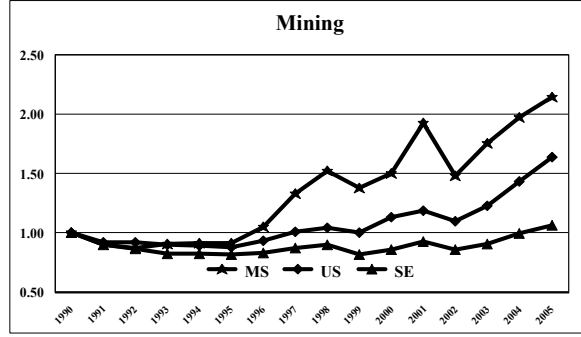
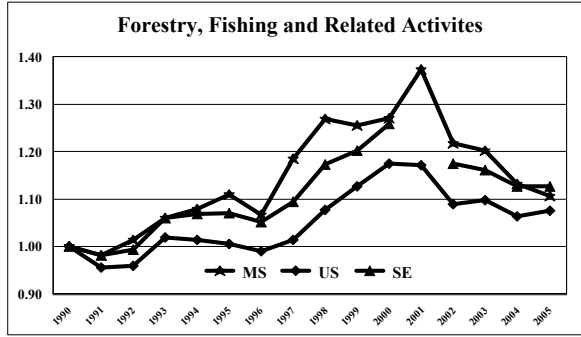
Between 1990 and 2005, inflation-adjusted earnings in the State of Mississippi grew \$9.9 billion. Growth, however, has been uneven during this 15-year period, with most occurring in the mid-1990s with the development of the gaming industry along with the subsequent expansion of the accommodation and food services sectors. The largest source of earnings in the state is the government sector, accounting for almost 25% of all nonfarm earnings in 2005, and 27 cents out of every new dollar generated in the state between 1990 and 2005. A sizable portion of this growth is likely due to teacher pay raises and increased teacher employment. This increase appeared more pronounced because the rest of the economy was experiencing sluggish growth. The state is moving away from manufacturing. Sectors such as government, health care and social as-

sistance, and accommodation and food services comprise larger shares of the total nonfarm earnings than in the past.

These trends give evidence of an economy in transition. As a result of globalization and improved technology, manufacturing has diminished in terms of its contributions to the overall economy. This has happened nationally and regionally but the trend is more pronounced in Mississippi where manufacturing has historically played a more prominent role in the overall economy. In the national and regional economies, the diminished role of manufacturing has been offset by strong gains in earnings from professional and technical services as well as finance and insurance industries. But these sectors have not been a strong source of growth in Mississippi. Instead the state growth has relied primarily upon gains in the government sector as well as the gaming/tourism-related industries. The question remains, however, of what will be the source of growth in the future.

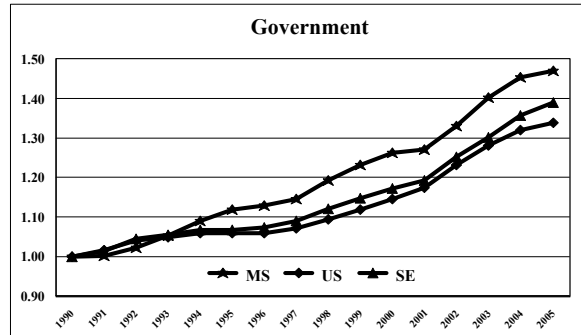
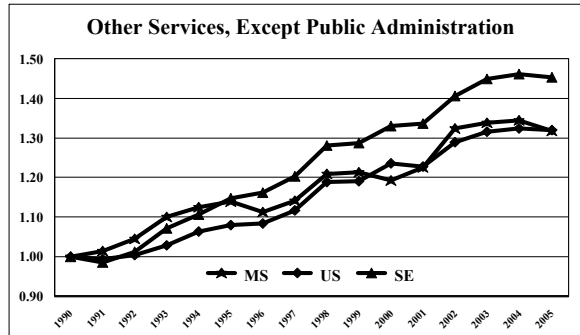
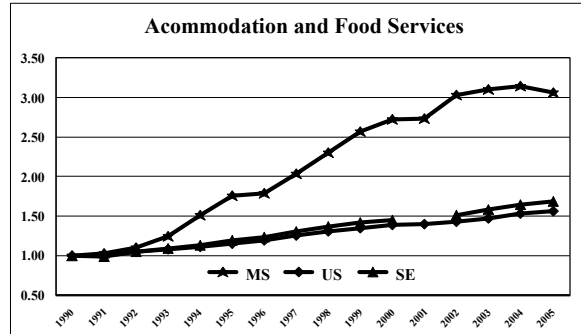
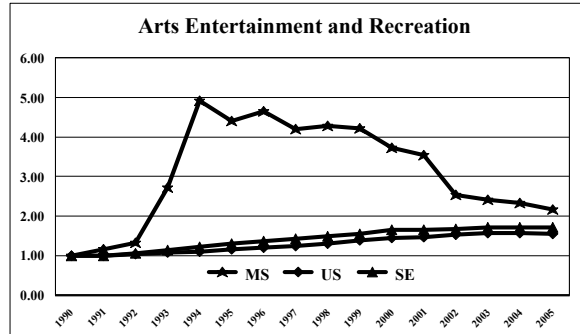
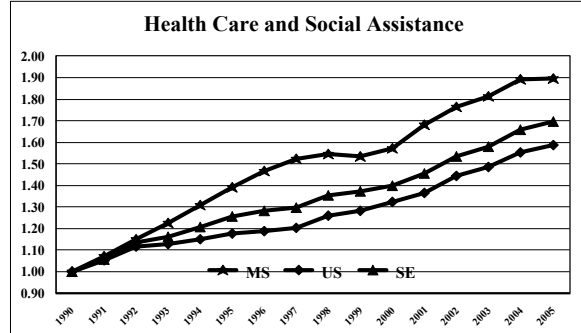
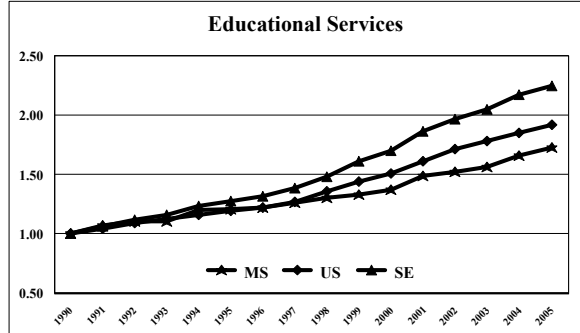
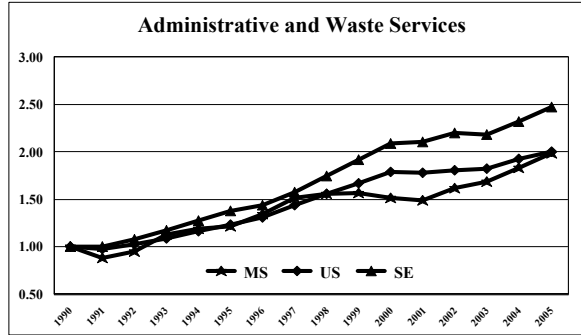
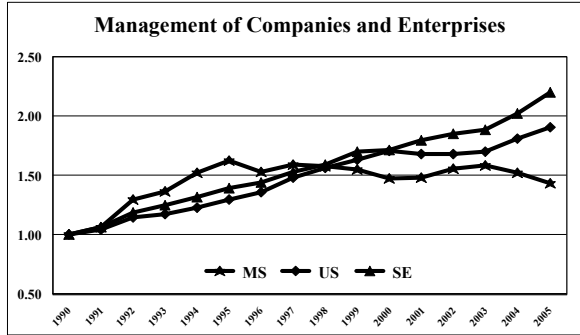
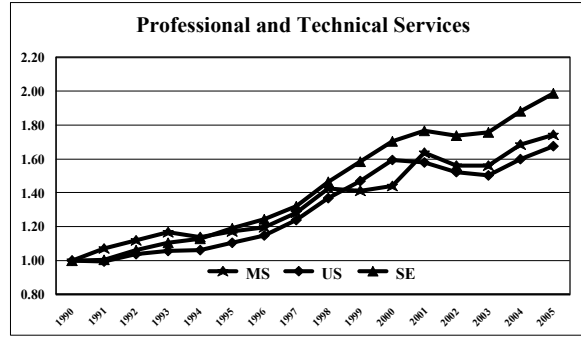
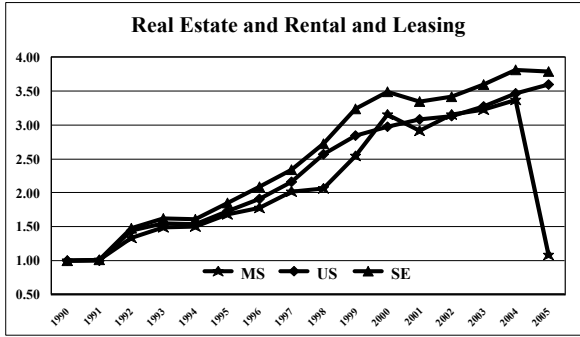
The largest component of Mississippi's tourism industry has been gaming. It generated substantial gains in the mid 1990s, but, once established, the sector was not a strong source of growth for the state. The Katrina-induced renovations of the coast will improve tourism to the state and may enable

Figure 7. Earnings Index by Industry, 1990=100



Note: Gaps in data indicate the data were unavailable.
SOURCE: U.S. Bureau of Economic Analysis

Figure 7. Earnings Index by Industry, 1990=100, Continued



Note: Gaps in data indicate the data were unavailable.
SOURCE: U.S. Bureau of Economic Analysis

the state to increase its share of the gambling market. But the other markets, primarily Las Vegas, are not sitting idle. In fact, there has been tremendous new investment in the Las Vegas gaming industry recently. It already enjoyed a competitive advantage as the gamblers' mecca and the increased popularity of poker has only heightened the appeal. While gaming will be a significant portion of the overall economy, it seems unlikely that it will be a strong source of long-term growth for Mississippi.

The introduction of the automotive industry to the state's economy is a positive development in terms of growth. The industry offers high-paying jobs to a large number of people. In the near term, the state will see noticeable gains from this sector as the Toyota plant gets underway and supplier operations locate in the state to serve this plant as well as Nissan. Once the industry is well established, the growth rate for earnings in this sector will naturally diminish. Once that takes place, the automotive industry will be much less noticeable in the overall economy.

While it will be a significant contributor, it will not have a large-enough presence to drive overall growth.

What then will be the source of growth in the state in the long run? The capacity of Mississippi's workforce is measurably below that of the nation. The global economy is increasingly reliant on knowledge and skills. It is then likely that the state's growth in the future will be below that of the nation. In the 1990-2005 period, Mississippi nearly matched the average growth in earnings of the nation. Unless the state increases the knowledge capacity of its workforce, the next 15 years will witness a growing gap between the earnings growth in Mississippi and the rest of the nation.

Note

1. See Roberts and Hoch, "Malpractice Litigation and Medical Costs In Mississippi", *Health Economics* (in press). Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/hec.1195