

## **INTRODUCTION**

Mississippi's highway network includes approximately 73,500 miles and more than 16,000 bridges under the jurisdiction of federal, state, and local governments. The Mississippi state highway system, under the jurisdiction of MDOT, includes over 10,600 miles. Mississippi's total highway system mileage is 24<sup>th</sup> largest in the U.S., while the 14.5 percent of those miles under state jurisdiction rank 26<sup>th</sup>.

The highway system typically handles more than 35 billion vehicle miles of travel (VMT) annually, ranking 28<sup>th</sup> nationally. Mississippi's residents drive an average of 12,187 miles per year, which is 7<sup>th</sup> highest in the nation. The state's highway network characteristics support the view of Mississippi as a rural state, and the transportation planning focus reflects this.

Both Mississippi's passenger and freight transport are highly dependent upon the state's highway network. When compared to other states, a larger percentage of Mississippi's total vehicle miles traveled comes from heavy truck travel than from other vehicle travel.

Mississippi's population, business, agriculture, industry, governments, commerce, education and tourism are all heavily dependent upon the state's highway network. In order to address this dependence, ongoing maintenance and improvement of the state's highway facilities will be essential in furthering the goals of a truly intermodal system. A strong highway network is recognized as key to the state's future prosperity.

The information presented in this chapter reflects data from the years 2000 and 2001 (unless otherwise noted), the most recent information available. The use of more current data would require estimation in certain areas, and would therefore not be consistent.

## **FOUR-LANE HIGHWAY PROGRAM**

An example of Mississippi's commitment to its citizens is the state's "Four-Lane Highway Program." Recognizing the importance of a strong highway system, Mississippi adopted this program in 1987. This program was enacted by the Mississippi legislature to provide multi-lane highways needed to sustain the state's economy and provide accessible intrastate mobility. When completed, most Mississippians will live within 30 minutes or 30 miles of a four-lane highway.

As originally developed, 1,088 miles of four-lane highways were to be constructed over a 14-year period. The intent was to complete work in phases that overlapped each other, with the majority of the work to be completed in Phase II. The original deadlines for each phase were:

- Phase I            June 30, 1993
- Phase II           June 30, 1998
- Phase III          June 30, 1999

In 1994, the Mississippi Legislature added Phase IV which, after further modification in 1998, increased the total number of highway miles to be constructed or improved to 1,772 miles. Projects are scheduled to be let over an 11-year time frame, with improvements being made to those highway facilities of highest need. Construction of Phase IV is not expected to begin until fiscal year 2005.

While the majority of projects met the legislatively-mandated deadlines, in some cases projects were delayed due to a variety of factors, including environmental issues (presence of wetlands, hazardous materials, properties of historical importance), relocation of utilities, terrain, replacement housing and inflation.

Despite the problems, as of June 30, 2001, 971.9 miles of highway had been let by MDOT for construction, of which 680.4 miles of new four-lane highways were open to the public. All Phase I work is now complete or under contract, and the program is well into Phases II and III.

**Table 5-1** provides a summary of Phase II and III projects scheduled to be let in state fiscal year 2002.

**Table 5-1  
FOUR-LANE PROGRAM PHASES II AND III  
FY 2002 SCHEDULED PROJECTS**

<b>PHASE II</b>		
<b>County</b>	<b>Highway</b>	<b>Project Description</b>
Oktibbeha	US 82	From 2.7 miles west of Adaton to 2.7 miles west of relocated SR 25, 4.2 miles.
Wayne	US 45	From State Line to Winchester, 5.8 miles.
Oktibbeha	US 82	From 2.7 miles west of relocated SR 25 to Clayton Village, 7.7 miles.
Lawrence	US 84	From the Lincoln County Line to Old SR 27, 7.9 miles.
Lawrence	US 84	From the east end of the Monticello Bypass to the Lincoln County Line, 4.8 miles.
Lawrence	US 84	From Old SR 27 to the east end of the Monticello Bypass, 4 miles.
Lowndes	US 45A	From the Noxubee County Line to Artesia Road, 9.4 miles.
Wilkinson	US 61	From the Louisiana State Line to SR 563, 10.8 miles.
<b>PHASE III</b>		
<b>County</b>	<b>Highway</b>	<b>Project Description</b>
Jefferson Davis	US 84	Between Prestiss and the Covington County Line, 4.9 miles.
Bolivar	US 61	From Shelby to the Coahoma County Line, 11.7 miles.
Coahoma	US 61	From the Bolivar County Line to US 49, 6.7 miles.
Montgomery	US 82	From Kilmichael to the Webster County Line, 9.3 miles.

*Source: Mississippi Moving AHEAD, 1987 Four-Lane Highway Program Annual Report, June 2001*

## GAMING ROADS PROGRAM

The Gaming Counties' State Assisted Infrastructure Fund, enacted during the 1994 Legislative session, calls for highway improvements in and around "gaming impacted" areas within the state, and includes construction of new four-lane highways, the addition of turn lanes, and upgrading of traffic signals where needed. MDOT has awarded 31 contracts worth \$255.4 million. When completed, over 250 miles of highway in and around gaming areas will be improved.

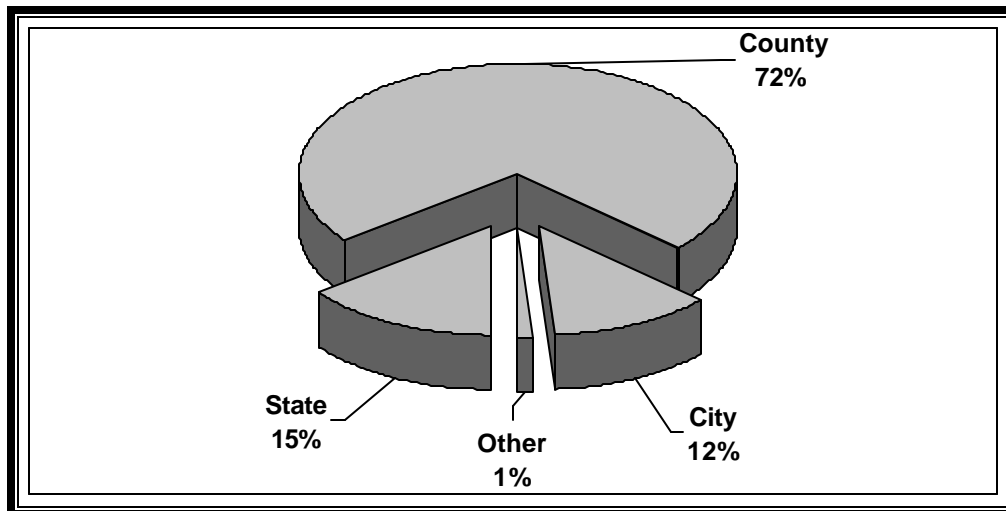
## HIGHWAY SYSTEM CHARACTERISTICS

A current assessment of Mississippi's highway network has been performed for ownership and functional classification, traffic volume, congestion, pavement and bridge condition, and highway safety. This assessment will provide the foundation for the detailed needs analysis to be undertaken in Phase II.

### Jurisdiction and Functional Classification

Referencing **Figure 5-1**, county-owned highways make up 72 percent of the state's highway network, while state and city-owned highways are the balance at 15 and 12 percent respectively. Highways under "other" jurisdiction (federal government) are at just over one percent of total highway network mileage in Mississippi.

**Figure 5-1**  
**SYSTEM MILEAGE BY JURISDICTION**



Source: Mississippi Dept. of Transportation, Planning Division, 2000.

As shown in **Table 5-2**, counties have jurisdiction of nearly 80 percent of rural highways, while just over 76 percent of urban roadways are under city jurisdiction. MDOT has jurisdictional responsibility of fewer highways than the average state. While the average state has jurisdiction over 21.5 percent of rural highways, Mississippi is just under 15 percent. The average state has jurisdiction over 13 percent of urban highways, while MDOT owns over 11 percent. Compared to the average state, MDOT appears to bear a reasonable share of responsibility for the state's highway network.

**Table 5-2  
MISSISSIPPI HIGHWAY NETWORK  
MILEAGE BY OWNERSHIP**

	Rural		Urban		Total	
	Miles	Percent	Miles	Percent	Miles	Percent
State	9,764	14.92%	901	11.19%	10,665	14.51%
County	52,325	79.95%	988	12.27%	53,313	72.54%
City	2,616	4.00%	6,132	76.18%	8,748	11.90%
Other	745	1.14%	28	0.35%	773	1.05%
<b>Total</b>	<b>65,450</b>	<b>100.00%</b>	<b>8,049</b>	<b>100.00%</b>	<b>73,499</b>	<b>100.00%</b>
Percent		89.05%		10.95%		

Source: Mississippi Dept. of Transportation, Planning Division, 2000.

Table 5-3 shows that MDOT maintains jurisdiction over 93 percent of all “higher order” highway miles (Interstates, Freeways, Other Principal Arterials), while counties have jurisdiction over three-quarters of “lower order” highways.

**Table 5-3  
MISSISSIPPI HIGHWAY NETWORK  
FUNCTIONAL CLASSIFICATION MILEAGE BY JURISDICTION**

	State	County	City	Other	Total
Interstate	685	-	-	-	685
Other Freeway/Expressway	41	-	-	-	41
Other Principal Arterial	2,364	32	177	-	2,573
Minor Arterial	3,731	71	461	285	4,548
Collector	3,611	10,844	1,051	7	15,513
Local	233	42,366	7,059	481	50,139
<b>Total</b>	<b>10,665</b>	<b>53,313</b>	<b>8,748</b>	<b>773</b>	<b>73,499</b>

Source: Mississippi Dept. of Transportation, Planning Division, 2000.

Table 5-4 shows the highway mileage by functional classification. Higher order highways comprise less than five percent of the total highway mileage in Mississippi, which mirrors the national average. Local functional class highways have the largest share of total highway network mileage at just over 68 percent, which is consistent with both the rural and urban local highway systems as well. The national percentages also fall within a range of 68 to 70 percent.

Collectors comprise a larger percentage (at slightly more than 22 percent) of rural highway mileage than for urban highway mileage (at just over 12 percent). This mirrors the national trend of 22.9 percent and 10.4 percent, respectively.

**Table 5-4  
MISSISSIPPI HIGHWAY NETWORK  
MILEAGE BY FUNCTIONAL CLASSIFICATION**

	Rural		Urban		Total	
	Miles	Percent	Miles	Percent	Miles	Percent
Interstate	557	0.85%	128	1.59%	685	0.93%
Other Freeway/Expressway			41	0.51%	41	0.06%
Other Principal Arterial	1,898	2.90%	675	8.39%	2,573	3.50%
Minor Arterial	3,858	5.89%	690	8.57%	4,548	6.19%
Collector:						
Major	12,061	18.43%				
Minor	2,456	3.75%				
Total	14,517	22.18%	996	12.37%	15,513	21.11%
Local	44,620	68.17%	5,519	68.57%	50,139	68.22%
<b>Total</b>	<b>65,450</b>	<b>100.00%</b>	<b>8,049</b>	<b>100.00%</b>	<b>73,499</b>	<b>100.00%</b>
Percent		89.05%		10.95%		

Source: Mississippi Dept. of Transportation, Planning Division, 2000.

### Traffic Volume

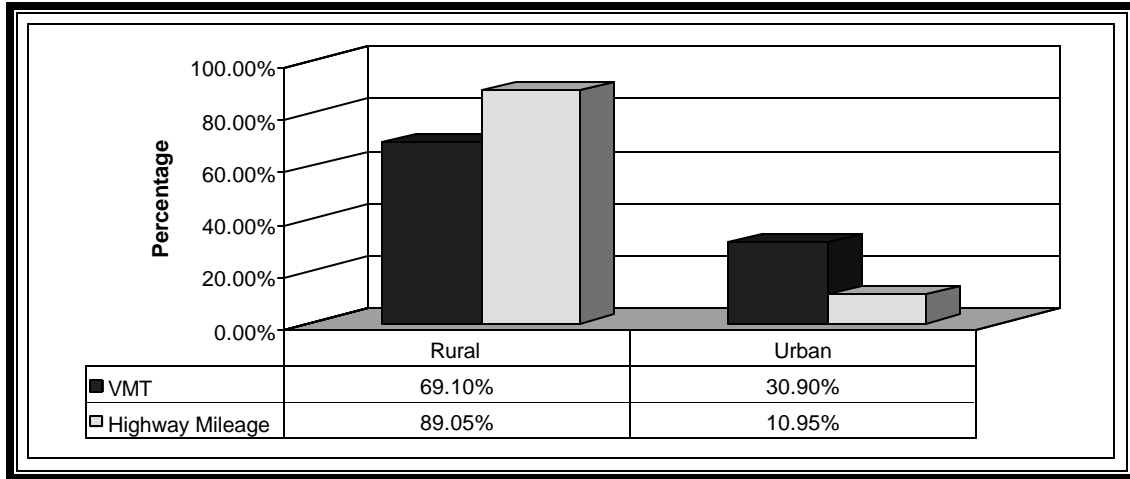
Mississippi has more rural highway miles and highway travel than the average state, and transportation planning efforts reflect the dependence of rural areas on the highway network. The high percentage of heavy truck traffic along with traffic to and from ports is indicative of the impact the highway network has on the state's economic growth and vitality as well.

Almost 90 percent of the highway mileage and 70 percent of the vehicle miles traveled (VMT) in Mississippi are in rural areas. While nationally 78 percent of total system mileage is in rural areas, the rural highway facilities account for just 39 percent of VMT.

Just less than 31 percent of total VMT in Mississippi are on an urban highway network that comprises 11 percent of total highway mileage. This is indicative of the national trend towards urban highway networks having a higher ratio of traffic volume versus available highway mileage than the larger rural network.

**Figure 5-2** provides information on rural and urban highway percentages compared with VMT.

**Figure 5-2  
PERCENT OF HIGHWAY MILEAGE AND  
VEHICLE MILES OF TRAVEL (VMT)**



Source: Mississippi Dept. of Transportation, Planning Division, 2000.

Further illustrating the highway network’s rural focus, for each functional classification a higher percentage of annual VMT is found in rural areas than urban areas. In fact, the rural classification with the lowest level of annual VMT (Minor Arterials with 3.90 billion VMT) exceeds the urban classification with the highest level of annual VMT (Other Principal Arterials at 3.75 billion VMT).

There is a roughly 45 percent / 55 percent split between annual VMT on higher order roadways (Interstates, Other Freeways and Expressways, and Principal Arterials) versus lower order. The largest share overall is on Other Principal Arterials at 26.3 percent, while local roads contribute 22.4 percent of the annual VMT. National VMT levels differ somewhat, in that Interstates make up the largest share at 24 percent. Both **Table 5-5** and **Figure 5-3** provide information on annual VMT by functional classification.

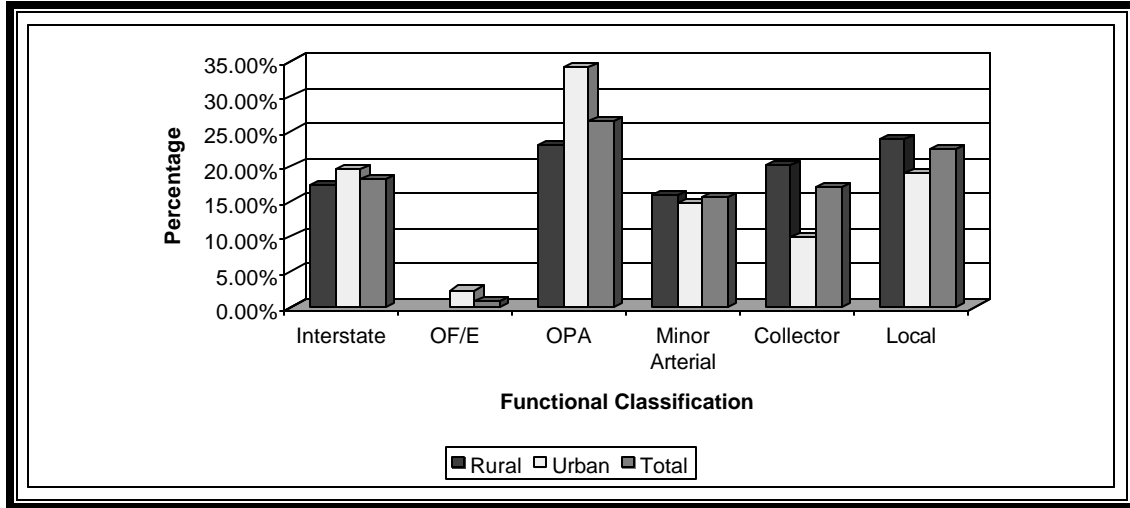
**Table 5-5  
ANNUAL VMT (IN MILLIONS) BY FUNCTIONAL CLASSIFICATION**

	Rural		Urban		Total	
	VMT(m)	Percent	VMT(m)	Percent	VMT(m)	Percent
Interstate	4,251	17.30%	2,154	19.61%	6,405	18.02%
Other Freeway/Expressway			262	2.39%	262	0.74%
Other Principal Arterial	5,615	22.85%	3,751	34.15%	9,366	26.34%
Minor Arterial	3,898	15.87%	1,630	14.84%	5,528	15.55%
Collector:						
Major	4,464	18.17%				
Minor	459	1.87%				
Total	4,923	20.04%	1,093	9.95%	6,016	16.92%
Local	5,881	23.94%	2,094	19.06%	7,975	22.43%
<b>Total</b>	<b>24,568</b>	<b>100.00%</b>	<b>10,984</b>	<b>100.00%</b>	<b>35,552</b>	<b>100.00%</b>
Percent		69.10%		30.90%		

Source: Mississippi Dept. of Transportation, Planning Division, 2000.

Mississippi is also typical of other states in the distribution of VMT over functional classification. Mississippi’s 685 miles of Interstate account for less than one percent of the total highway network mileage, yet accommodates almost 18 percent of total vehicle miles traveled. Though higher order highways comprise less than 5 percent of the total highway mileage, they contribute over 44 percent of total VMT. Higher order highways in urban areas contribute over half of the total urban VMT, on just over 10 percent of the urban highway network. Similarly, rural higher order highways contribute 40 percent of total rural VMT on not quite 4 percent of the rural highway network.

**Figure 5-3**  
**ANNUAL VMT (IN MILLIONS) BY FUNCTIONAL CLASSIFICATION**

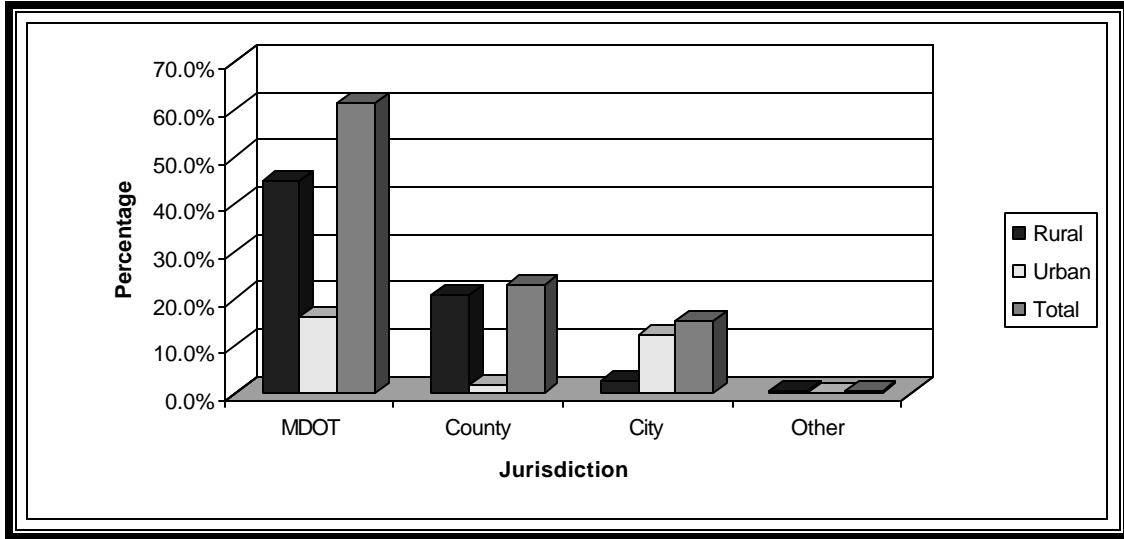


Source: Mississippi Dept. of Transportation, Planning Division, 2000.

The level of total VMT on higher order highways illustrates the dependence upon not only Mississippi’s Interstates and U.S. Highway network, but also on the highways constructed and improved through the state’s Four-Lane Highway Program.

It is important to compare highway mileage and VMT by jurisdiction to obtain a clearer assessment of system characteristics. Referencing **Figure 5-4**, while MDOT maintains jurisdiction over just 14.5 percent of all highway mileage in Mississippi, the state-maintained highway system accounts for over 61 percent of total VMT. Conversely, while counties maintain over 72 percent of all highway mileage, the county-owned highway mileage accounts for slightly less than 23 percent of total VMT. While the county-maintained highway network is more extensive, the state-maintained system is much more heavily traveled.

**Figure 5-4  
ANNUAL VMT (IN MILLIONS) BY JURISDICTION**

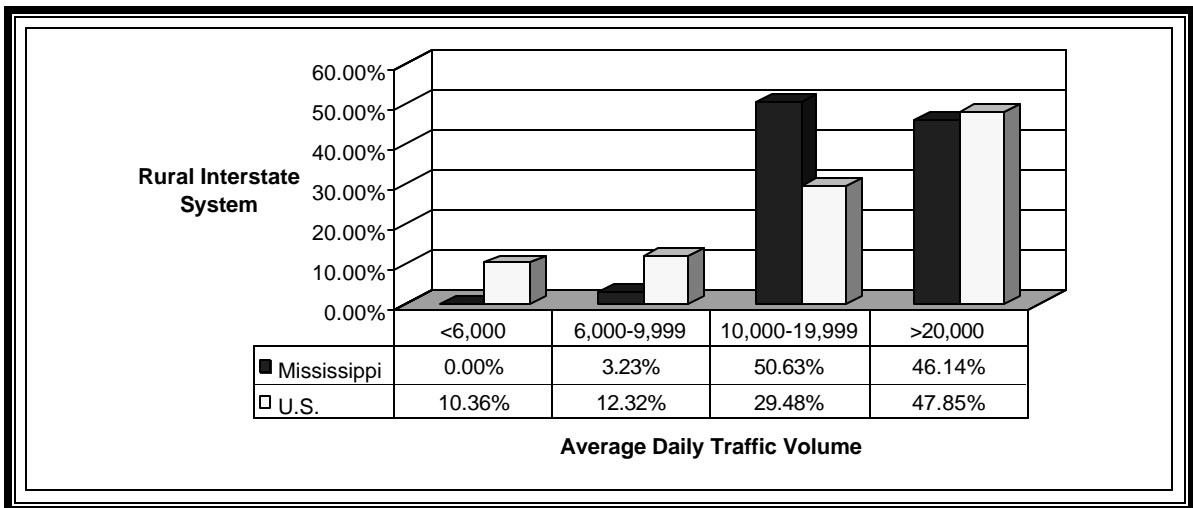


Source: Mississippi Dept. of Transportation, Planning Division, 2000.

Figures 5-5 and 5-6 show Mississippi’s rural and urban Interstate system by ADT range.

The state’s rural Interstate network moves more traffic than the national average. Over 96 percent of Mississippi’s rural Interstate system has ADT volumes of more than 10,000, compared to slightly more than 77 percent nationally. The percentage of rural Interstate mileage having over 20,000 ADT is similar to national figures (46 and 48 percent respectively).

**Figure 5-5  
RURAL INTERSTATE ADT VOLUME: MISSISSIPPI VS. U.S. AVERAGE**

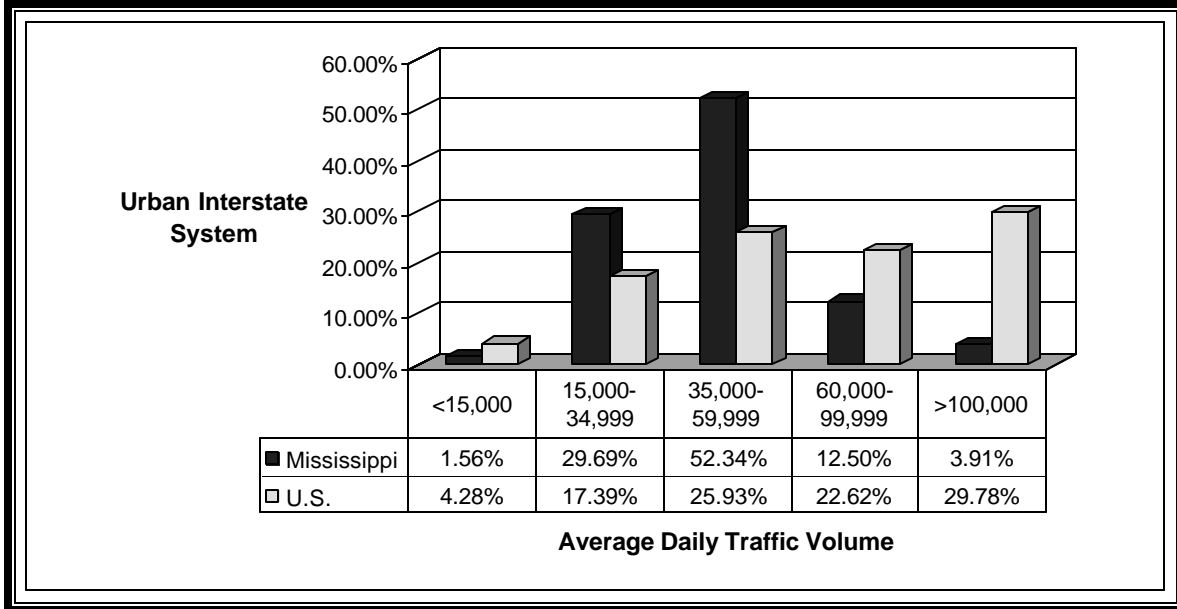


Source: Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.

Mississippi’s urban Interstates are not as heavily traveled when compared to the national urban Interstate network. Just over 16 percent of the state’s urban Interstate highway mileage have Average Daily Traffic (ADT) volumes of more than 60,000, while the national figure is just over 52 percent. The majority of the state’s urban Interstate

highway network has an ADT volume between 35,000 and 59,999. While over one-quarter of the U.S. Interstate system has an ADT volume of more than 100,000, the figure for Mississippi is less than four percent.

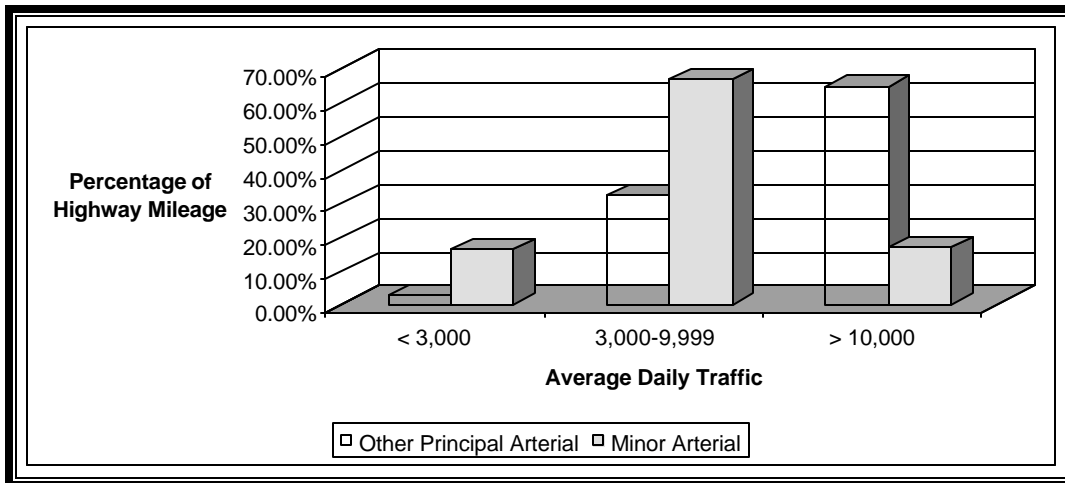
**Figure 5-6**  
**URBAN INTERSTATE ADT VOLUME: MISSISSIPPI VS. U.S. AVERAGE**



Source: *Highway Statistics*, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.

The Interstate traffic volumes again indicate a dependence upon the state’s rural highway facilities. The Interstate network, especially in rural areas, plays a key role in the provision of both freight and passenger transport, and thus is essential to the health of Mississippi’s economy. The maintenance and preservation of the Interstate network, along with other facilities within the National Highway System and Mississippi’s Four-Lane Program, are core objectives of the state’s transportation planning efforts.

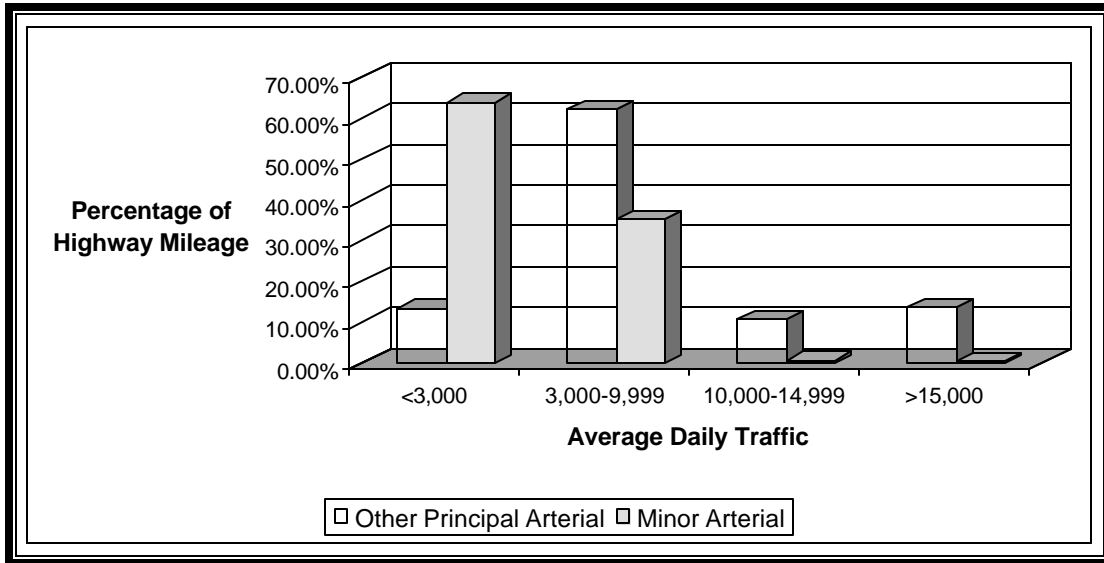
**Figure 5-7**  
**URBAN HIGHWAY MILEAGE BY AVERAGE DAILY TRAFFIC**  
**URBAN OTHER PRINCIPAL AND MINOR ARTERIALS**



Source: *Highway Statistics*, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.

Looking at **Figures 5-7 and 5-8**, Mississippi's noninterstate rural highway system is less heavily traveled than the urban network. Almost two-thirds of urban OPA mileage has an ADT of greater than 10,000, while two-thirds of Minor Arterials have an ADT volume of between 3,000 and 10,000. Just over 62 percent of rural OPA mileage have an ADT volume of less than 10,000, while almost 64 percent of Minor Arterials have an ADT figure of less than 3,000. By comparison, over 95 percent of Mississippi's rural interstate mileage has an ADT volume of greater than 10,000.

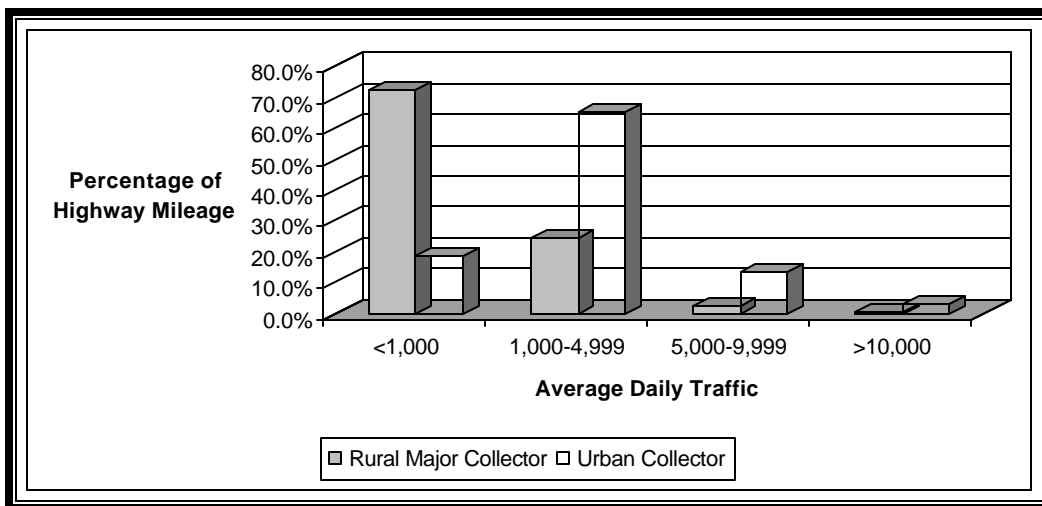
**Figure 5-8**  
**RURAL AVERAGE DAILY TRAFFIC BY HIGHWAY MILEAGE**  
**OTHER PRINCIPAL ARTERIALS AND MINOR ARTERIALS**



Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

**Figure 5-9** shows the comparison of ADT volumes for urban and rural Collectors, with the 72.6 percent of rural Collectors at less than 1,000 ADT standing out in comparison.

**Figure 5-9**  
**URBAN HIGHWAY MILEAGE BY AVERAGE DAILY TRAFFIC**  
**URBAN AND RURAL COLLECTORS**



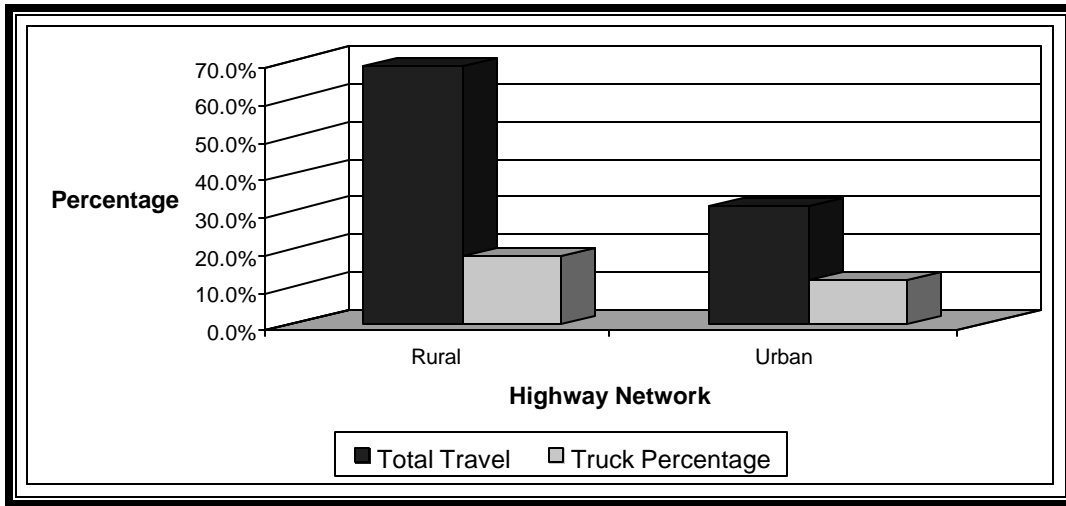
Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

### Truck Traffic

An analysis of the traffic mix on Mississippi’s highway network shows the largest volume of heavy truck traffic as a percentage of total traffic volume (by functional classification) is on the state’s rural and urban Interstates. Heavy trucks are described as those having two axles and six tires or more, as well as combination trucks (single and multiple trailers). Over the past decade the number of trucks on Mississippi highways has been increasing at a faster rate than the number of passenger vehicles.

As shown in **Figure 5-10**, heavy truck traffic accounts for nearly 20 percent of Mississippi’s rural traffic, and just over 10 percent of urban traffic. When compared nationally, Mississippi’s highways are among the heaviest truck carriers of all states. The state’s high ranking of heavy truck traffic as a percentage of total traffic volume illustrates the dependence freight transport has on Mississippi’s highway network.

**Figure 5-10**  
**HEAVY TRUCK TRAVEL AS A PERCENTAGE OF TOTAL VMT**

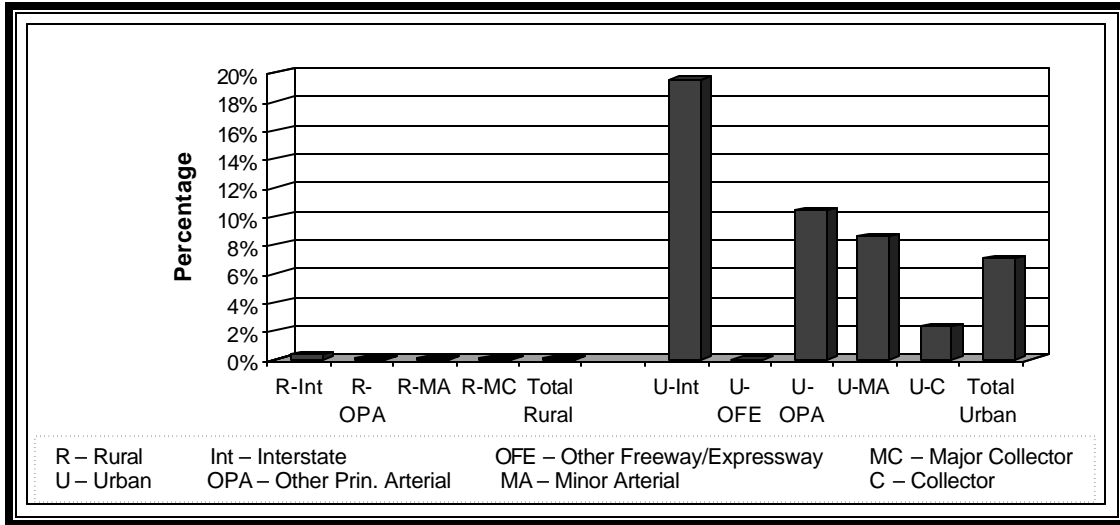


Source: Mississippi Dept. of Transportation, Planning Division, 2000.  
Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.

### Congestion

Using a volume-service flow ratio of >0.80 as a determinant of system congestion, Mississippi’s urban highway system has disproportionately higher congestion than the rural network. As shown in **Figure 5-11**, seven percent of urban highway mileage is determined to be congested, with urban Interstates accounting for the highest percentage of congested highway mileage at almost 19.5 percent. By comparison, less than one percent of rural highway mileage is identified as congested, in part due to the level of highway mileage available in rural areas.

**Figure 5-11**  
**MISSISSIPPI HIGHWAY NETWORK**  
**VOLUME-SERVICE RATIO >0.80**



Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

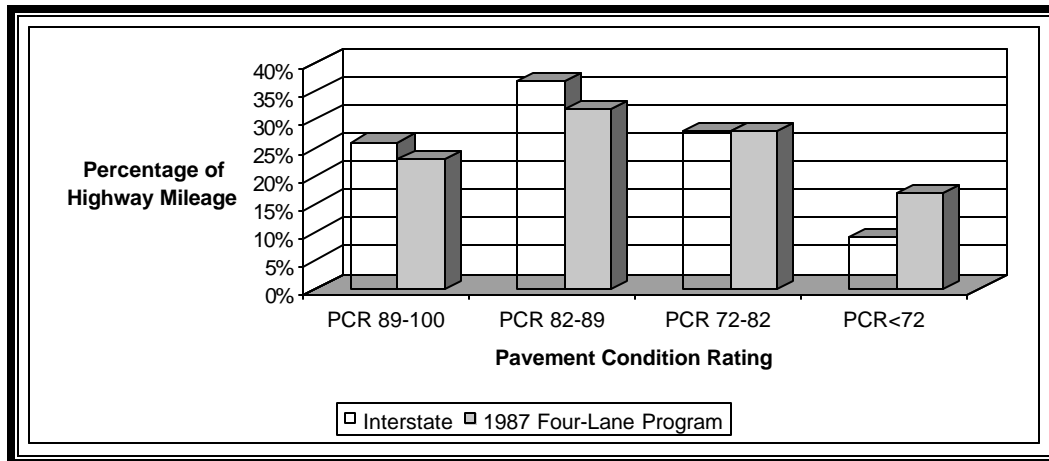
**Pavement Condition**

The goal of MDOT is to keep interstates and four-lane highways at a Pavement Condition Rating (PCR) of 72 and above, and two-lane highways at 62 and above. PCR is a degree of relative pavement condition developed by MDOT and assigned to each mile of measured highway.

MDOT has seen continued improvement in the condition of highway pavement through such programs as the Four-Lane Highway Program, as well as through overall highway maintenance programs.

A breakdown of highway percentages by PCR is provided in **Figures 5-12** and **5-13**.

**Figure 5-12**  
**MISSISSIPPI STATE HIGHWAY NETWORK**  
**HIGHWAY MILEAGE BY PAVEMENT CONDITION**



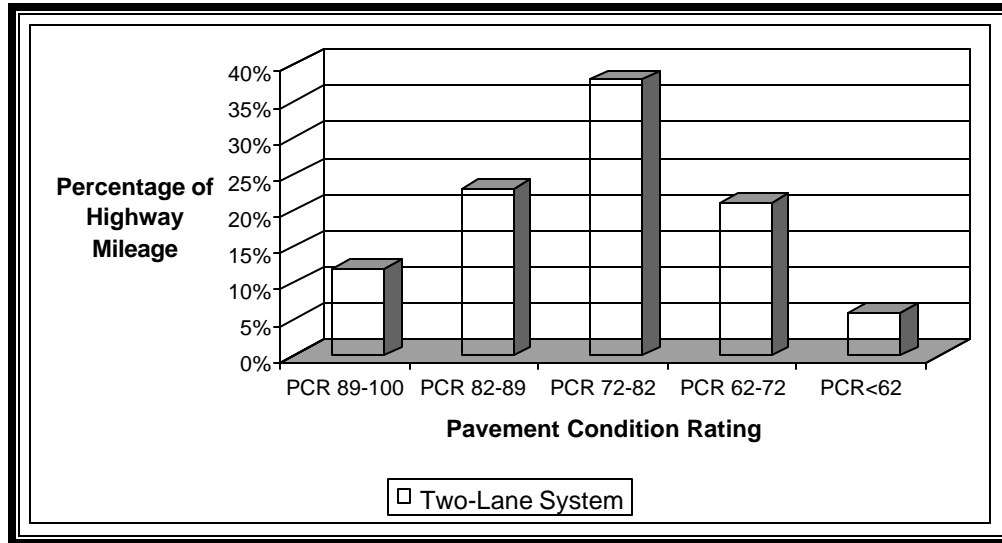
Source: *Mississippi Dept. of Transportation, Research Division, 2001.*

The PCR ranges currently used by MDOT are:

- 89-100: Very Good
- 82-89: Good
- 72-82: Fair
- 62-72: Poor
- <62: Very Poor

Using the PCR values for both four and two-lane highways, over 90 percent of Interstate mileage is in Fair to Very Good pavement condition, while 83 percent of the Four-Lane Highway mileage is rated at the same standard. Almost 75 percent of two-lane highway mileage is rated as Fair to Very Good.

**Figure 5-13**  
**MISSISSIPPI STATE HIGHWAY NETWORK**  
**HIGHWAY MILEAGE BY PAVEMENT CONDITION RATINGS**



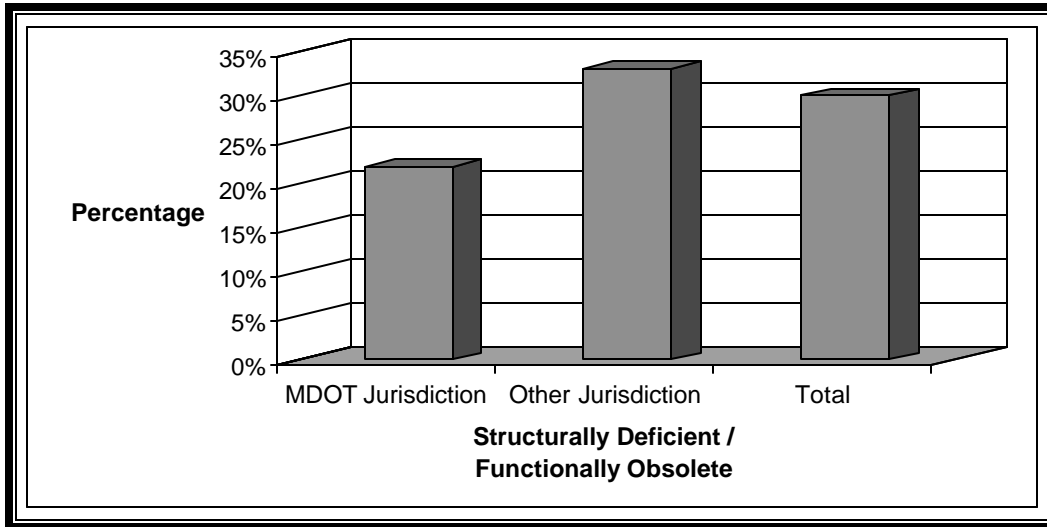
Source: Mississippi Dept. of Transportation, Research Division, 2001.

MDOT has increased their efforts in improving the condition of both highway pavement and bridges, and these efforts have resulted in the continued improvement in each of these areas.

### Bridge Condition

Mississippi's 16,394 bridges place the state in the top 15 nationally in number. Of these, 5,401 are under the jurisdiction of MDOT, while the remaining 10,993 are under the jurisdiction of local governments.

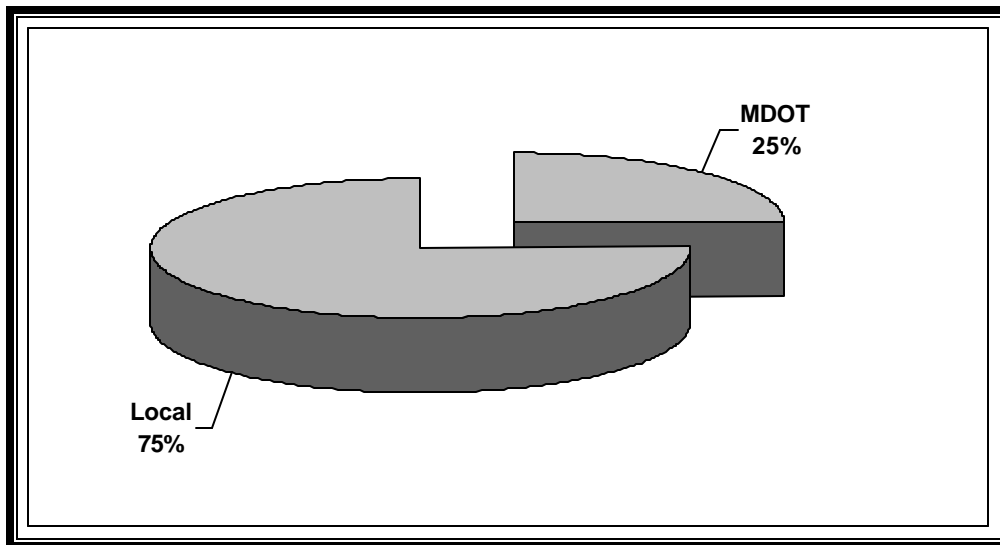
**Figure 5-14**  
**BRIDGE CONDITION BY JURISDICTION**



Source: Mississippi Dept. of Transportation, Bridge Division, 2001.

**Figure 5-14** shows a comparison of bridge condition by jurisdiction. Of the total number of bridges, 3,663 are structurally deficient (in need of immediate rehabilitation to carry loads for which it was originally designed), and 1,219 functionally obsolete (structurally sound, yet in most cases with width and/or clearance restrictions). The largest number of structurally deficient bridges are under the jurisdiction of local governments, while the largest number of functionally obsolete bridges belong to MDOT.

**Figure 5-15**  
**DEFICIENT BRIDGE CONDITION BY JURISDICTION**



Source: Mississippi Dept. of Transportation, Bridge Division, 2001.

Referencing **Figure 5-15**, bridges under MDOT jurisdiction are in proportionately better condition than bridges under jurisdiction of other entities. Though MDOT maintains one-third of the total number of bridges, they account for just one-quarter of the bridges that are either structurally deficient or functionally obsolete.

Non-NHS and NHS Bridge Condition Trends

Table 5-6  
NON-NHS HIGHWAY BRIDGES

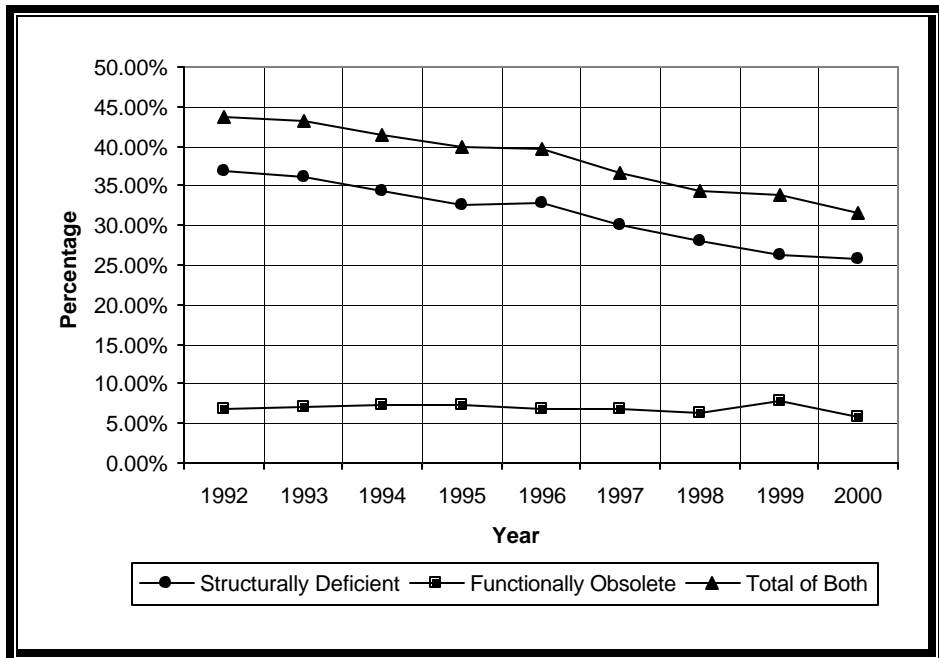
Year	Structurally Deficient	Functionally Obsolete	Total of Both
1992	36.79%	6.80%	43.59%
1993	36.03%	7.06%	43.09%
1994	34.27%	7.22%	41.49%
1995	32.53%	7.26%	39.78%
1996	32.74%	6.85%	39.59%
1997	29.94%	6.74%	36.69%
1998	27.93%	6.36%	34.29%
1999	26.17%	7.77%	33.94%
2000	25.82%	5.77%	31.58%

Source: U.S. DOT – FHWA, Office of Bridge Technology, 2000.

Slightly more than 30 percent of the non-NHS bridges are either structurally deficient or functionally obsolete. As shown in **Table 5-6**, Mississippi has made significant improvement in bridge condition since 1992, as the percentage of deficient non-NHS bridges has been reduced 27 percent.

**Figure 5-16** shows that the number of non-NHS structurally deficient bridges has decreased 30 percent since 1992, and the number of functionally obsolete bridges has decreased slightly. The total number of non-NHS highway bridges has increased in that same time by 3.75 percent.

Figure 5-16  
NON-NHS HIGHWAY BRIDGES

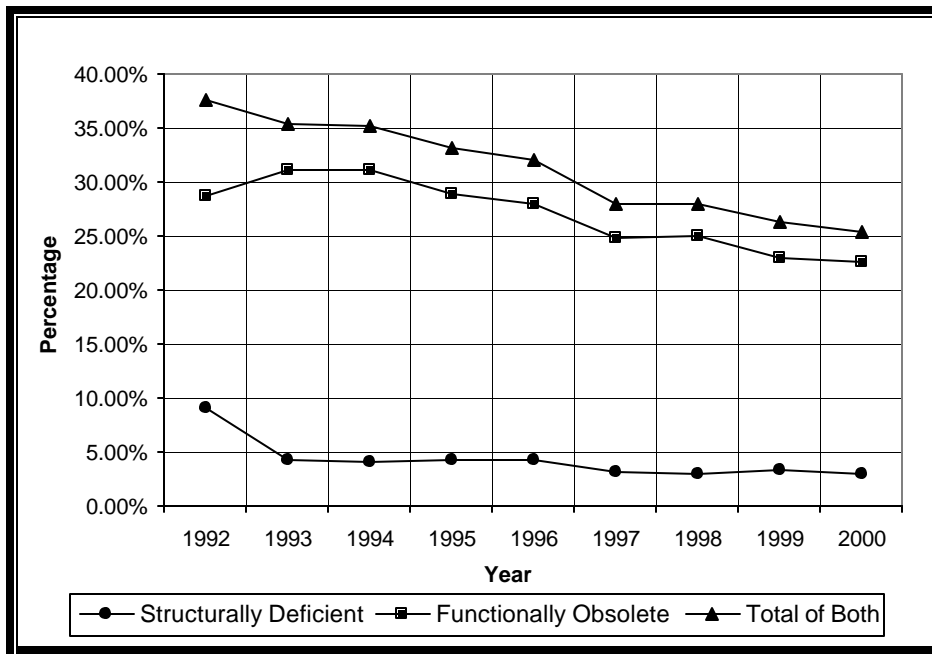


Source: U.S. DOT – FHWA, Office of Bridge Technology, 2000.

**Figure 5-17** shows the trend since 1992 in the condition of NHS bridges. As the number of National Highway System bridges have decreased since 1992, so to have the number of bridges that are either structurally deficient or functionally obsolete. Over this period there has been a 25 percent decrease in the number of NHS highway bridges, with just over a 12 percent decrease in the number of NHS highway bridges that are either structurally deficient or functionally obsolete.

While more non-NHS highway bridges have been determined to be structurally deficient as opposed to functionally obsolete, the reverse holds true for NHS highway bridges. Over 22 percent of NHS highway bridges are functionally obsolete, compared to less than three percent identified as structurally deficient.

**Figure 5-17  
NHS HIGHWAY BRIDGES**



Source: U.S. DOT – FHWA, Office of Bridge Technology, 2000.

## Safety

As was the case when the *1996 Long Range Transportation Plan* was completed, safety remains a significant issue in Mississippi. The state continues to lead the nation in highway fatalities per 100 million vehicle miles traveled. The number of fatalities has increased by 20 percent since 1994, the 4<sup>th</sup> highest rate of increase in the nation. Nationally, fatalities increased by only 2.7 percent over the same period.

According to the Fatality Analysis Reporting System (FARS), more than 23 percent of Mississippi’s traffic fatalities in 2000 were speeding-related. Alcohol consumption was a contributing factor in approximately 30 percent of traffic fatalities in 2000. This is a 25 percent improvement from the 40 percent of alcohol-related fatalities in 1990 with the same BAC level (>.10).

FARS reports that Mississippi had a safety belt use rate of 50.4 percent in December 2000. The national rate is 71 percent, and only four states had a lower rate than Mississippi.

As shown in **Table 57**, nearly all fatalities occurred on rural highways, with urban highways accounting for less than one percent of total fatalities. Most fatalities occurred on rural Collectors and Local highways, together accounting for over 75 percent of total highway fatalities in 2000.

**Table 5-7**  
**MISSISSIPPI HIGHWAY NETWORK**  
**FATALITIES BY FUNCTIONAL CLASSIFICATION**

	Rural		Urban		Total	
	Fatalities	Percent	Fatalities	Percent	Fatalities	Percent
Interstate	124	13.14%	1	20.00%	125	13.17%
Other Freeway/Expressway			0	0.00%	0	0.00%
Other Principal Arterial	70	7.42%	1	20.00%	71	7.48%
Minor Arterial	3	0.32%	0	0.00%	3	0.32%
Collector:						
Major	130	13.77%				0.00%
Minor	295	31.25%				0.00%
Total	425	45.02%	0	0.00%	425	44.78%
Local	322	34.11%	3	60.00%	325	34.25%
<b>Total</b>	<b>944</b>	<b>100.00%</b>	<b>5</b>	<b>100.00%</b>	<b>949</b>	<b>100.00%</b>
Percent		99.47%		0.53%		

Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

**Table 5-8** provides the number of fatalities by functional classification per 100 million VMT. The highest rate of fatalities was also found on rural Collectors and Local highways, at 8.7 and 5.5 each. With 295 fatalities for only 460 million miles traveled, rural Minor Collectors accounted for the highest fatality rate at 64.1. No other functional classification has higher than 8.7 fatalities per 100 million VMT.

**Table 5-8  
MISSISSIPPI HIGHWAY NETWORK  
FATALITIES BY FUNCTIONAL CLASSIFICATION PER 100 MILLION VMT**

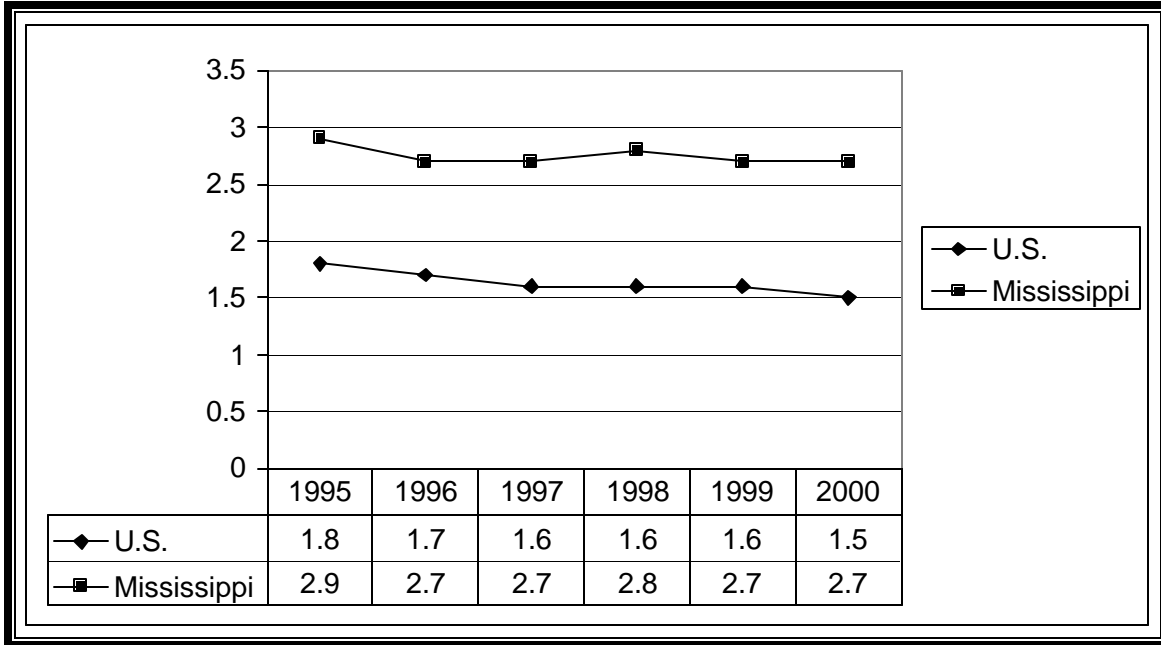
	Rural			Urban			Total		
	Fatalities	VMT(M)	Per 100 (M) VMT	Fatalities	VMT(m)	Per 100 (M) VMT	Fatalities	VMT (M)	Per 100 (M) VMT
Interstate	124	4,243	2.9	1	2,127	0.0	125	6370	2.0
Other Free./Ex. Way				0	278	0.0	0	278	0.0
Other Prin. Arterial	70	5,534	1.3	1	3,876	0.0	71	9410	0.8
Minor Arterial	3	3,864	0.1	0	1,669	0.0	3	5533	0.1
Collector:									
Major	130	4,418	2.9						
Minor	295	460	64.1						
Total	425	4,878	8.7	0	1,071	0.0	425	5949	7.1
Local	322	5,897	5.5	3	2,099	0.1	325	7996	4.1
<b>Total</b>	<b>944</b>	<b>24,416</b>	<b>3.9</b>	<b>5</b>	<b>11,120</b>	<b>0.0</b>	<b>949</b>	<b>35,536</b>	<b>2.7</b>

Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

The rate of fatalities by functional classification mirrors that of the number of fatalities, with the exception of Interstates and Other Principal Arterials. While Other Principal Arterials account for a higher percentage of fatalities than Interstates, Mississippi's Interstate network has a higher fatality rate per 100 million VMT than do Other Principal Arterials.

Over 79 percent of all fatalities occurred on lower-order highways, compared to just less than 21 percent for higher-order highways. The fatality rate per 100 million VMT for higher-order highways was 1.2, which is a 30 percent decrease from the 1.7 rate in 1999. The fatality rate per 100 million VMT for lower-order highways was 3.9, which is an increase of 15 percent from the 3.4 rate in 1999. The highest rate of fatalities occurred on lower-order, rural highways, which also accounted for the greatest number of fatalities. While improvement has been made in reducing the number of fatalities on Mississippi's higher order system, MDOT recognizes that much progress remains to be made.

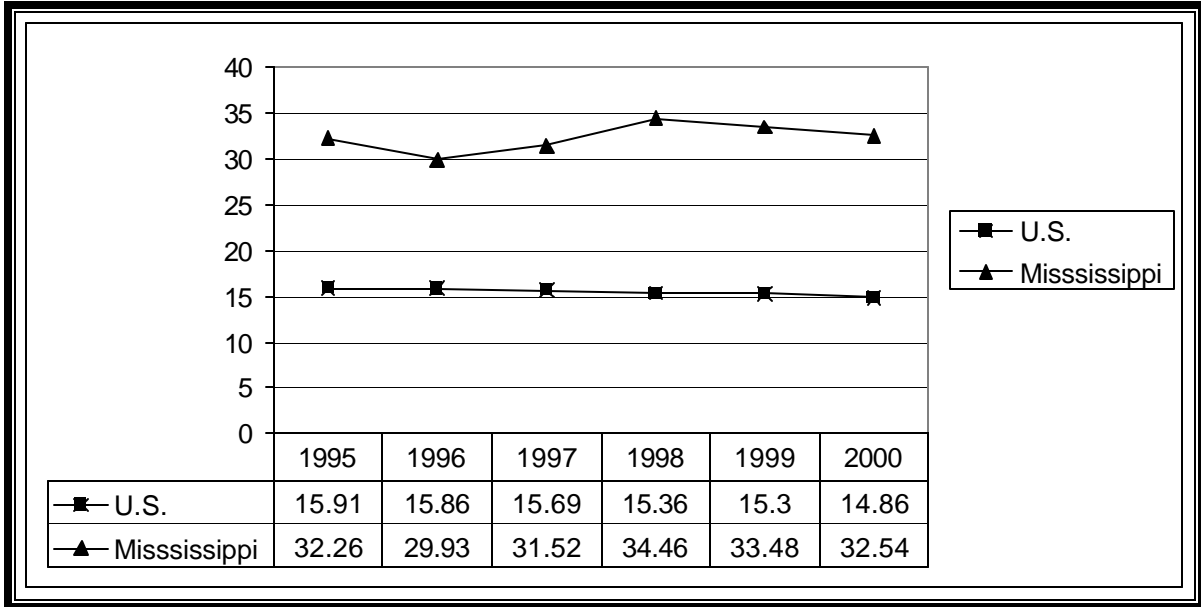
**Figure 5-18**  
**FATALITY RATE PER 100 MILLION VMT 1995 - 2000**



Source: Fatality Analysis Reporting System, U.S. DOT - National Highway Traffic Safety Administration, 2000.

As shown in **Figures 5-18** and **5-19**, since 1995 Mississippi's fatality rate per 100 million vehicle miles traveled and 100,000 population has been higher than the national rate. Mississippi's fatality rate per 100,000 population, licensed drivers and registered vehicles is at least twice as high as the national rate. While Mississippi's fatality rate per 100 million vehicle miles traveled has decreased slightly since 1995, it still remains over one-and-one-half times as high as the national average.

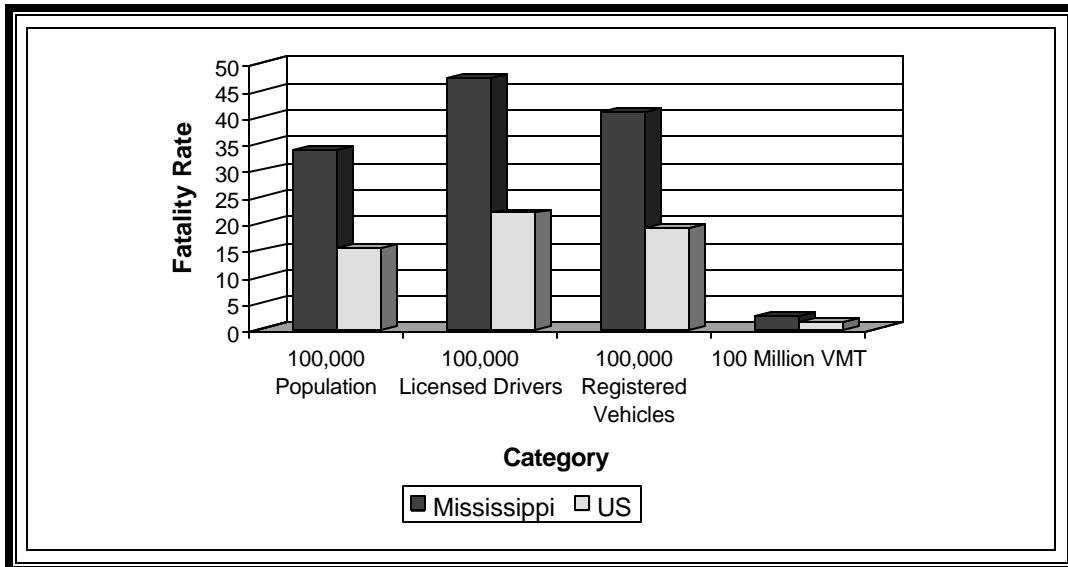
**Figure 5-19**  
**FATALITY RATE PER 100,000 POPULATION 1995 - 2000**



Source: Fatality Analysis Reporting System, U.S. DOT - National Highway Traffic Safety Administration, 2000.

Mississippi's fatality rate for both 100,000 population and 100,000 licensed drivers has been twice as high as the national average each year since 1995. In no instance since 1995 was Mississippi's fatality rate at or below the national average for any of the categories summarized here. **Figure 5-20** provides a comparison of both Mississippi and national fatality rates for 2000. Mississippi is at least twice as high as the national fatality rate for population, licensed drivers and registered vehicles, and more than one-and-one-half times as high for fatality rate per 100 million VMT.

**Figure 5-20**  
**2000 FATALITY RATES: MISSISSIPPI VS. US**



Source: Fatality Analysis Reporting System, U.S. DOT - National Highway Traffic Safety Administration, 2000.

**National Highway System**

Through the National Highway Designation Act of 1995, up to 178,250 highway miles of may be designated as part of the National Highway System (NHS). The NHS has become a focal point of future federal interest due to the inclusion of the Interstate system and selected non-Interstate principal arterial routes.

Owing to the importance of the NHS within Mississippi on both general and commercial travel, an assessment of NHS facilities has been incorporated into the overall highways and bridges modal assessment. Previous and subsequent tables and figures, unless otherwise noted, have included NHS mileage. However, general information relative to the NHS is provided at this point as a subset of the total statewide highway network.

There are 2,123 rural NHS miles and 364 urban NHS miles in Mississippi, the majority of which are Principal Arterials other than Interstates and Freeways. MDOT maintains 98 percent of all NHS mileage, with the remainder maintained locally. Approximately 37 percent of Mississippi’s AVMT is found on the state’s NHS network.

**Table 5-9** provides a listing and the mileage of intermodal connectors to the NHS to and from selected intermodal facilities in Mississippi. The majority of intermodal connectors are associated with the state’s public ports, a testament to the focus on the movement of freight from, to and on Mississippi’s waterways. Additional areas of focus with respect to NHS intermodal connectivity include Jackson and the Gulf Coast.

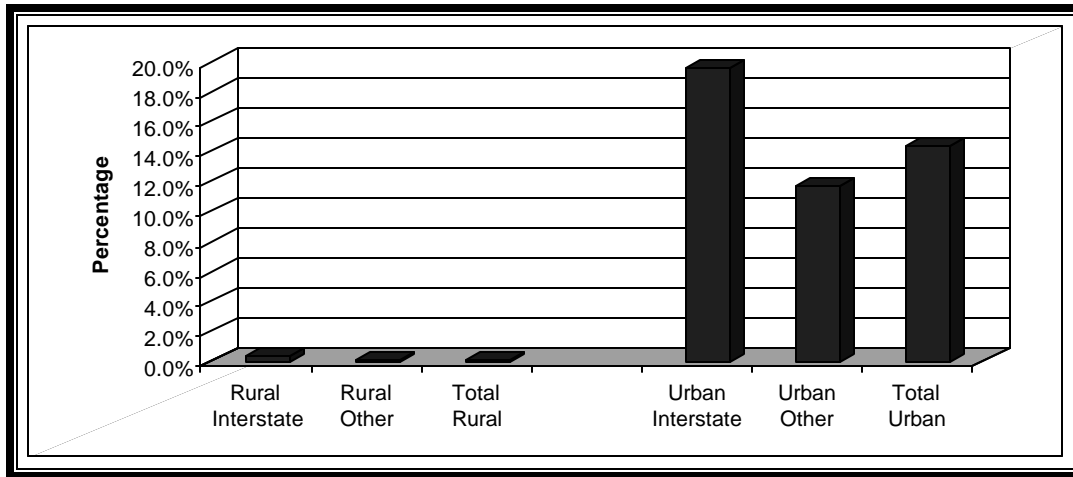
**Table 5-9  
MISSISSIPPI NATIONAL HIGHWAY SYSTEM INTERMODAL CONNECTORS**

Facility Name	Connector One Mileage	Connector Two Mileage	Total
Port of Aberdeen	0.82 miles		0.82 miles
Port of Amory	7.8 miles		7.8 miles
Port of Bienville	9.8 miles		9.8 miles
Port of Biloxi	0.6 miles		0.6 miles
Port of Columbus	2.7 miles		2.7 miles
Port of Greenville	2.8 miles		2.8 miles
Port of Gulfport	0.6 miles (East)	8.1 miles (West)	8.7 miles
Port of Itawamba	0.9 miles		0.9 miles
Port of Natchez	4.25 miles		4.25 miles
Port of Pascagoula	3.8 miles (East)	3.06 miles (West)	6.86 miles
Port of Rosedale	19.9 miles		19.9 miles
Port of Vicksburg	5.8 miles	7.3 miles (South)	13.1 miles
Port of Yazoo County	1.55 miles		1.55 miles
Port of Yellow Creek	14.06 miles (North)	3.16 miles (South)	17.22 miles
Gulfport-Biloxi Intl. Airport	2.22 miles (North)	2.53 miles (South)	4.75 miles
Jackson Intl. Airport	2.8 miles		2.8 miles
CN/IC Rail (Jackson) Jackson Amtrak Rail Facility Jackson Greyhound Bus Facility	3.6 miles (North)	4.2 miles (South)	7.8 miles
<b>Total Mileage</b>			<b>112.35 miles</b>

Source: Mississippi Dept. of Transportation, Planning Division, 2000.

The NHS includes the Interstate system and other important roadways. Both statewide and nationally the majority of NHS mileage is non-Interstate principal arterials, and mostly rural. Using the same volume-service flow criteria (>0.80) as a determinant of system congestion, Mississippi's NHS mileage parallels the total highway network mileage in that congestion levels are disproportionately higher on urban rather than rural NHS highways. As shown in **Figure 5-21**, of the urban NHS facilities, 14.3 percent are identified as being congested, compared to less than one percent of rural NHS facilities. Congestion levels on both urban and rural NHS facilities are higher than those on the total highway network.

**Figure 5-21**  
**MISSISSIPPI NATIONAL HIGHWAY SYSTEM**  
**VOLUME-SERVICE RATIO >0.80**



Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

### Urbanized Areas

**Table 5-10** provides information on the four urbanized areas in Mississippi: Jackson, Biloxi-Gulfport, Hattiesburg and Pascagoula. While Pascagoula has the smallest of the four populations, it has the highest amount of highway mileage per 1,000 persons, and a higher amount of total highway mileage and DVMT per capita than Hattiesburg.

**Table 5-10**  
**SELECTED URBANIZED AREA HIGHWAY STATISTICS**

URBANIZED AREA <sup>1</sup>	ESTIMATED POPULATION	TOTAL ROADWAY MILES	TOTAL DVMT <sup>2</sup> (1,000)	MILES OF ROADWAY PER 1,000 PERSONS	TOTAL DVMT <sup>2</sup> PER CAPITA	% OF TOTAL MILES SERVING AS FREEWAYS	% OF TOTAL DVMT <sup>2</sup> SERVED BY FREEWAYS
Jackson	310,000	1,651	8,933	5.3	28.8	3.6	38.1
Biloxi-Gulfport	195,000	1,200	4,751	6.2	24.4	1.4	16.8
Hattiesburg	111,000	441	1,821	4.0	16.4	1.2	8.3
Pascagoula	66,000	451	1,431	6.8	21.7	0.4	3.8

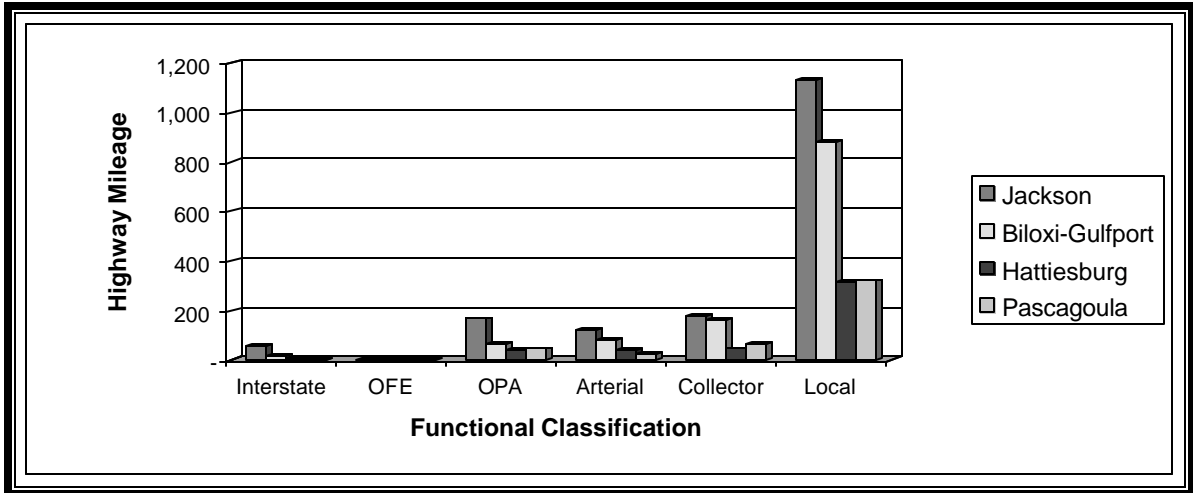
<sup>1</sup> An "Urbanized Area" is an area with 50,000 or more persons that at a minimum encompasses the land area delineated as the urbanized area by the U.S. Bureau of the Census.

<sup>2</sup> "DVMT" stands for daily vehicle-miles of travel.

Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

Less than one percent of Pascagoula’s highway mileage are freeways, accounting for not quite four percent of total DVMT. By comparison, 3.6 percent of Jackson’s highways are freeways, accounting for just over 38 percent of the total DVMT. The Gulf Coast area accounts for a greater highway mileage per 1,000 persons, and a large DVMT per capita by comparison.

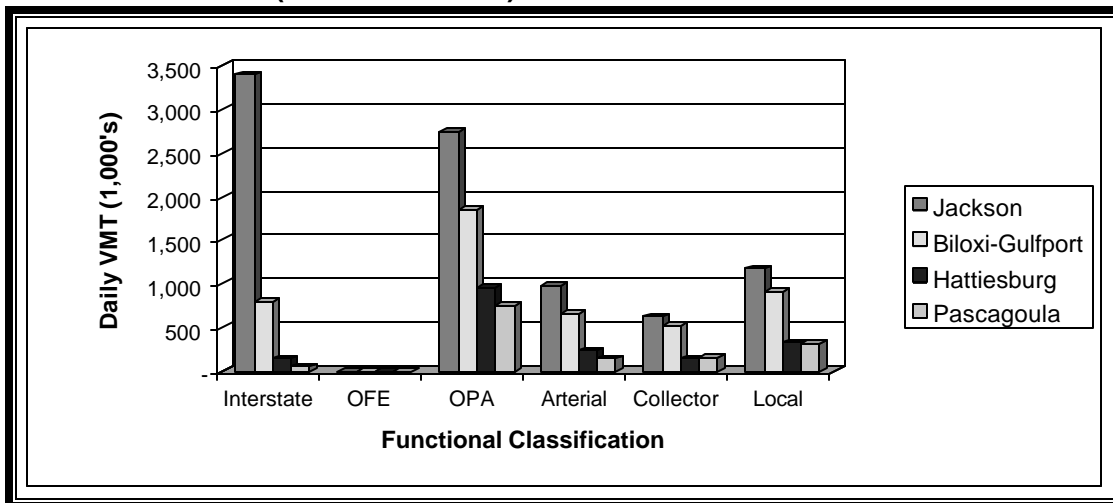
**Figure 5-22**  
**URBANIZED HIGHWAY MILEAGE BY FUNCTIONAL CLASSIFICATION**



Source: *Highway Statistics*, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.

Figures 5-22 and 5-23 show for each urbanized area the highway mileage and daily vehicle miles traveled (DVMT) by functional classification. Local roads accounted for a far greater share of highway mileage for each urbanized area. For each urbanized area, while the higher-order system accounted for a larger share of the highway mileage, the lower-order system accounted for a larger share of DVMT. In looking at the lower-order system, local roads accounted for a higher level of DVMT than both Collectors and Arterials for each urbanized area. In Biloxi-Gulfport, Hattiesburg and Pascagoula, DVMT on local roads was higher than all other functional classifications with the exception of Other Principal Arterials, due in part to the amount of Local highway mileage in each.

**Figure 5-23**  
**DAILY VMT (IN THOUSANDS) BY FUNCTIONAL CLASSIFICATION**



Source: *Highway Statistics*, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.

**PEER STATE REVIEW**

Comparing the condition of Mississippi's highway and bridge networks to the national highway network provides a basis for determining the status of the state's system condition from a national perspective. However, a more thorough analysis of Mississippi's system can be determined through a peer state review. Through a systems condition analysis of neighboring and/or demographically similar states, as specifically related to Mississippi, a more accurate perspective of the state's highway network assessment can be obtained.

**Table 5-11  
SELECTED PEER STATE CHARACTERISTICS**

	1999 Net Land Area (Square Miles) 1/			1999 Population 1/			1998 Personal Income 2/		1996 Gross State Product 2/		
	Rural	Urban	% Urban	Rural (1,000)	Urban (1,000)	% Urban	Total Per Sq. Mile	Amount (Billions Of Dollars)	Per Capita	Amount (Billions Of Dollars)	Per Capita
Alabama	47,566	3,187	6.3	1,963	2,483	55.8	88	100	22,946	103	23,843
Arkansas	50,917	1,162	2.2	1,305	1,321	50.3	50	56	22,114	59	23,376
Iowa	56,733	1,120	1.9	1,185	1,741	59.5	51	74	25,727	81	28,381
Kentucky	38,340	1,393	3.5	2,093	1,949	48.2	102	92	23,161	100	25,589
Louisiana	41,429	1,597	3.7	1,387	2,945	68.0	101	100	22,792	124	28,499
<b>Mississippi</b>	<b>45,760</b>	<b>1,158</b>	<b>2.5</b>	<b>1,578</b>	<b>1,338</b>	<b>45.9</b>	<b>62</b>	<b>57</b>	<b>20,506</b>	<b>58</b>	<b>21,230</b>
Oklahoma	66,855	1,825	2.7	699	2,752	79.7	50	77	22,801	77	23,235
Oregon	95,056	941	1.0	1,016	2,117	67.6	33	90	27,135	98	30,219
Tennessee	38,484	2,735	6.6	2,645	2,974	52.9	136	140	25,581	147	27,334
U.S. Total	3,515,266	113,576	3.1	77,392	202,874	72.4	77	7,777	28,518	8,103	30,260

Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

1/ Source is Highway Performance Monitoring System (HPMS) summary data reported by the States.

2/ Source is U.S. Bureau of Economic Analysis as published in *Statistical Abstract of the United States, 2000.*

Per Capita for Personal Income is based on 1999 population. Per Capita for Gross State Product is based on 1997 population.

**Table 511** provides a variety of comparative characteristics. Mississippi's highway system is compared with the neighboring states of Alabama, Arkansas, Louisiana and Tennessee, along with the selected peer states of Iowa, Kentucky, Oklahoma and Oregon. The peer states have been selected not only for their geographical diversity, but also for a combination of such criteria as land area, population, personal income, gross state product, and highway system characteristics such as highway mileage, lane-miles, daily vehicle miles traveled and average daily traffic. The criteria were selected to offer a good cross-representation of each state for a more beneficial peer state review.

**Table 5-12  
SELECTED PEER STATE STATISTICS -- RURAL**

	Miles 1/	Lane- Miles 3/	DVMT 4/	AADT/ Lane 5/	% Of Statewide Total Rural 2/		
					Miles	Lane- Miles	DVMT 4/
Alabama	8,947	21,016	48,141	2,291	12.1	14.0	61.0
Arkansas	15,027	31,817	44,247	1,391	17.3	18.1	86.4
Iowa	9,208	21,528	35,428	1,646	8.9	10.2	69.0
Kentucky	25,053	53,487	64,450	1,205	37.1	38.7	88.1
Louisiana	14,660	31,813	54,686	1,719	31.2	33.0	90.3
<b>Mississippi</b>	<b>9,743</b>	<b>22,651</b>	<b>43,896</b>	<b>1,938</b>	<b>14.9</b>	<b>16.9</b>	<b>65.8</b>
Oklahoma	11,314	25,536	42,323	1,657	11.4	12.6	71.4
Oregon	6,858	15,396	32,689	2,123	12.3	13.6	64.0
Tennessee	11,350	26,441	67,641	2,558	16.3	18.5	81.2
U.S. Total	661,798	1,458,167	2,291,653	1,572	21.5	23.1	77.3

Source: *Highway Statistics*, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.

1/ Includes roadways owned by the state highway agency. Excludes roadways owned by state toll, state park and other state agencies.

2/ Statewide totals for miles, lane-miles, and travel are found in *Highway Statistics* Tables HM-20, HM-60 and VM-2.

3/ May see differences from prior years; starting in 1999, number of lanes is coded for all systems except rural minor collector and rural/urban local.

4/ DVMT (Daily Vehicle-Miles of Travel) is in thousands.

5/ AADT means Annual Average Daily Traffic. AADT/Lane is a statewide average.

Tables 5-12 through 5-14 present for comparative purposes selected statistics for highways under state jurisdiction. The states have been further analyzed on the basis of *system extent* (functional classification and jurisdiction), *condition and performance* (general travel, congestion, pavement and bridge condition) and *safety*.

### System Extent

In looking at the extent of the highway system, the focus is on the state’s portion of the total system mileage. This focus provides a more accurate representation of Mississippi’s responsibility when compared nationally as well as with the selected comparison states.

- Mississippi’s total highway mileage of 73,499 places it 27<sup>th</sup> nationally and 7<sup>th</sup> out of the comparison states, just behind Kentucky, and ahead of Louisiana and Oregon.
- The state highway system mileage of 10,665 places Mississippi 7<sup>th</sup> out of the comparison states. The percentage of the total system mileage under state jurisdiction is 14.5 percent, placing Mississippi 5<sup>th</sup> out of the comparison group.

**Table 5-13  
SELECTED PEER STATE STATISTICS -- URBAN**

	Miles 1/	Lane- Miles 3/	DVMT 4/	AADT/ Lane 5/	% Of Statewide Total Urban 2/		
					Miles	Lane- Miles	DVMT 4/
Alabama	1,945	6,613	40,921	6,188	9.4	14.7	54.1
Arkansas	1,346	4,082	19,771	4,843	12.7	17.9	69.4
Iowa	1,035	3,537	13,874	3,922	10.5	15.7	47.7
Kentucky	2,421	7,075	44,544	6,296	20.5	27.2	81.3
Louisiana	2,036	6,444	40,660	6,310	14.6	20.5	79.7
<b>Mississippi</b>	<b>910</b>	<b>2,878</b>	<b>16,554</b>	<b>5,752</b>	<b>11.3</b>	<b>16.4</b>	<b>54.5</b>
Oklahoma	956	3,674	24,422	6,647	7.2	12.2	41.3
Oregon	732	2,228	24,394	10,949	6.6	9.5	54.7
Tennessee	2,440	8,543	62,756	7,346	13.8	21.1	65.2
U.S. Total	110,195	354,676	2,600,019	7,331	12.9	18.5	57.2

Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

1/ Includes roadways owned by the state highway agency. Excludes roadways owned by state toll, state park and other state agencies.

2/ Statewide totals for miles, lane-miles, and travel are found in *Highway Statistics* Tables HM-20, HM-60 and VM-2.

3/ May see differences from prior years; starting in 1999, number of lanes is coded for all systems except rural minor collector and rural/urban local.

4/ DVMT (Daily Vehicle-Miles of Travel) is in thousands.

5/ AADT means Annual Average Daily Traffic. AADT/Lane is a statewide average.

- Of the comparison states, Kentucky has the highest percentage of total highway mileage under state jurisdiction at 34.1 percent, while Iowa has the smallest percentage at 9.0 percent. Nationally, the average state highway system comprises 19.6 percent of total highway system mileage.
- MDOT has jurisdiction over 14.9 percent of all rural highway mileage in the state, which is less than the national average of 21.5 percent. Of the comparison states, Mississippi is 5<sup>th</sup>, ahead of Alabama, Iowa, Oklahoma and Oregon. Both Kentucky and Louisiana are far ahead of the other comparison states at 37.1 and 31.2 percent, respectively.
- The 10.8 percent of urban highway mileage under state jurisdiction places the state 5<sup>th</sup> out of the comparison group, again ahead of Alabama, Iowa, Oklahoma and Oregon. The national average is 12.9 percent. Kentucky again maintains the highest percentage, at 20.5 percent.

**Table 5-14  
SELECTED PEER STATE STATISTICS – RURAL AND URBAN**

	Miles 1/	Lane- Miles 3/	DVMT 4/	AADT/ Lane 5/	% Of Statewide Total 2/		
					Miles	Lane- Miles	DVMT 4/
Alabama	10,892	27,629	89,062	3,224	11.5	14.1	57.7
Arkansas	16,373	35,899	64,018	1,783	16.8	18.1	80.3
Iowa	10,243	25,065	49,302	1,967	9.0	10.8	61.3
Kentucky	27,474	60,562	108,994	1,800	34.7	36.9	85.2
Louisiana	16,696	38,257	95,346	2,492	27.4	29.9	85.4
<b>Mississippi</b>	<b>10,653</b>	<b>25,529</b>	<b>60,450</b>	<b>2,368</b>	<b>14.5</b>	<b>16.8</b>	<b>62.3</b>
Oklahoma	12,270	29,210	66,745	2,285	10.9	12.6	56.3
Oregon	7,590	17,624	57,083	3,239	11.3	12.9	59.7
Tennessee	13,790	34,984	130,397	3,727	15.8	19.1	72.6
U.S. Total	771,993	1,812,843	4,881,140	2,693	19.6	22.0	65.0

Source: *Highway Statistics, U.S. DOT – FHWA, Office of Highway Policy Information, 2000.*

1/ Includes roadways owned by the state highway agency. Excludes roadways owned by state toll, state park and other state agencies.

2/ Statewide totals for miles, lane-miles, and travel are found in *Highway Statistics* Tables HM-20, HM-60 and VM-2.

3/ May see differences from prior years; starting in 1999, number of lanes is coded for all systems except rural minor collector and rural/urban local.

4/ DVMT (Daily Vehicle-Miles of Travel) is in thousands.

5/ AADT means Annual Average Daily Traffic. AADT/Lane is a statewide average.

- The rural highway mileage under state jurisdiction accounts for 65.8 percent of rural daily vehicle miles traveled, placing Mississippi 7<sup>th</sup> out of the comparison group. Louisiana has the highest percentage at 90.3 percent, while Alabama has the lowest at 61 percent. The national average is 77.3 percent.
- Mississippi’s urban mileage under state jurisdiction accounts for 54.5 percent of urban daily vehicle miles traveled, placing the state 6<sup>th</sup> out of the comparison group. Alabama and Oregon are at 54.1 and 54.7 percent, respectively. Louisiana has the highest percentage at 79.7 percent, while Oklahoma has the lowest percentage at 41.3 percent. The national average is 57.2 percent.
- The vast majority of Mississippi’s higher order highways (Interstates, Other Freeways/Expressways and Other Principal Arterials) are under state jurisdiction, with the exception of urban Other Principal Arterials (OPA), of which over 26 percent are under the jurisdiction of cities and counties. Oklahoma and Oregon similarly maintain larger urban OPA percentages than other comparison states, while the national average is 31.6 percent. With the exception of Oklahoma maintaining only two-thirds of rural interstate mileage, all comparison states maintain the vast majority of higher order highway mileage.

- All comparison states maintain a minimal amount of both urban and rural local highways, with the majority of local highway mileage in peer states under local jurisdiction. This trend corresponds with the national average as well.

### **Condition and Performance**

In looking at the condition of the highway system, the focus is on the state's portion of the total system mileage. This focus provides a more accurate representation of Mississippi's responsibility when compared nationally as well as with the selected comparison states.

#### **General Travel**

Generally speaking, Mississippi's *state-maintained* rural highway system has a greater annual average daily traffic per lane (AADT) than the average state, while the urban highway system has a lower AADT.

- AADT per lane mile on Mississippi's state highway system is 2,368, 5<sup>th</sup> out of the comparison group. Of the peer states Tennessee has the highest AADT per lane at 3,727, while Arkansas has the lowest at 1,783. The average state highway system has an average daily traffic volume per lane mile of 2,693.
- AADT per lane mile on Mississippi's rural highways is 1,938, 23 percent higher than the national average of 1,572. This figure places Mississippi 4<sup>th</sup> out of the comparison group, behind Alabama, Oregon and Tennessee.
- On the state's urban highway system, AADT per lane mile is 5,752, 22 percent less than the national average of 7,331. This figure places Mississippi 7<sup>th</sup> in the comparison group, ahead of Arkansas and Iowa.

Mississippi has fewer daily vehicle miles traveled (DVMT) on its state-maintained system than do all other comparison states, apart from Iowa and Oregon. The DVMT on the state-maintained system as a percentage of total DVMT places Mississippi just below the national average, and in the mid-range of the comparison states.

- Mississippi's state-maintained highway system accounts for 62.3 percent of daily vehicle miles traveled (DVMT), placing it ahead of Alabama, Iowa, Oklahoma and Oregon among peer states. The average state system nationally accounts for 65.0 percent of DVMT.
- The DVMT on Mississippi's rural state-maintained highway network ranks ahead of Iowa and Oregon and slightly ahead of Oklahoma, while just behind Arkansas. The DVMT on the urban state-maintained system places Mississippi ahead of only Iowa.
- The 65.8 percent of DVMT on the rural system as a percentage of the rural statewide total is less than all comparison states except for Alabama (61 percent) and Oregon (64.0 percent). Louisiana has the highest level of DVMT at 90.3 percent. The national average is 77.3 percent.

- The 54.5 percent of DVMT on the urban system as a percentage of the urban statewide total is less than all comparison states except for Alabama (54.1 percent), Iowa (47.7 percent) and Oklahoma (41.1 percent). Oklahoma has a DVMT percentage of 54.7, while Kentucky is highest at 81.3 percent. The national average is 57.2 percent.
- The 43,896 DVMT on the rural state-maintained system places Mississippi 6<sup>th</sup> of the peer states, while the 16,554 urban DVMT places the state 8<sup>th</sup>. The DVMT figures support the dependence upon the state's highway infrastructure in rural areas.

### **Congestion**

A volume-service ratio of  $>.80$  is used as an indicator of congestion on both the National Highway System and statewide highway facilities.

- Mississippi compares well with the average state, in that for each functional classification observed, in no instance was the percentage of total highway mileage identified as congested at or above the national average. With the exception of Oklahoma, which aside from Other Principal Arterials had no highway mileage identified as congested, Mississippi compares favorably with the peer states as well.
- Overall, the urban higher order highway network tends to be far more congested than other systems. While less than one percent of Mississippi's rural Interstate mileage was congested, the figure for urban Interstate highway mileage was over 19 percent. All peer states (with the exception of Oklahoma), as well as the national average, followed this trend.
- Regarding rural Interstate highway mileage, with the exception of Kentucky at 11.8 percent, neither the national average nor any other comparison state was above 5.5 percent in terms rural Interstate mileage identified as congested. Mississippi, along with 4 other states, had less than 1 percent of rural Interstate mileage identified as congested.
- Four peer states have a lower percentage of urban Interstate highway mileage found to be congested than Mississippi's 19.5 percent. Oklahoma had no urban Interstate highway mileage identified as congested, while Oregon had the highest percentage at 35 percent. The national average was 29.6 percent.
- Mississippi compares well with respect to both rural and urban Other Principal Arterials (OPA). Only three states have less than Mississippi's 10.4 percent of urban OPA mileage determined to be congested. Oklahoma has the lowest percentage at 0.1 percent, while Kentucky has the highest percentage at 25.8 percent. The national average is 18.4 percent.
- Less than one percent of Mississippi's rural Other Principal Arterial mileage is identified as congested, which is less than the national average of 2.6 percent. Alabama, Iowa and Oklahoma each have similar percentages, while Oregon has the highest percentage at 6.7.

- Overall, regarding the total highway network mileage, the urban highway network accounts for a far greater percentage of congested highways than does the rural highway network. However, for all classifications Mississippi fares better than the national average, and generally compares favorably to the comparison states.

### **Pavement**

Owing to variations in pavement condition rating schemes among states, a detailed comparison has not been made. Rather, a general statement on pavement condition is provided.

- All peer states generally fared the worst with respect to pavement condition on lower order highways. Arkansas had the highest percentage of rural Major Collectors in poor pavement condition, while Oklahoma had the highest percentage of urban Collectors. Tennessee had the lowest percentage of rural Major Collectors in poor condition, while Iowa had the lowest percentage of urban Collectors. No other peer state in either functional classification came close to these two states in terms of having the lowest percentage of pavement condition in poor condition.
- Generally speaking, Alabama had the highest rated pavement condition of the comparison states, while Arkansas and Louisiana rated the worst. Mississippi generally fell within the middle of the group when comparisons were made on pavement condition.

### **Bridges**

Of Mississippi's total number of bridges, slightly less than 30 percent are determined to be deficient, either structurally deficient or functionally obsolete. The average highway network has roughly 29 percent of the bridges identified as deficient in some form.

Four comparison states had a higher percentage of highway bridges identified as deficient, while Arkansas and Iowa were each at close to 28 percent. Oklahoma had the highest percentage of deficient bridges at just over 40 percent, and Oregon had the lowest percentage at slightly less than 23 percent.

### **Safety**

- Mississippi has a higher fatality rate than the national rate per 100 million VMT, 100,000 population, 100,000 licensed drivers, and 100,000 registered vehicles.
- Mississippi has the highest fatality rate per 100 million VMT in the nation. The state's 2.7 rate is higher than the national figure of 1.5. Of the comparison states, only Arkansas and Louisiana are above 2.0. Oregon has the lowest fatality rate at 1.3.
- The number of Mississippi's highway fatalities has increased by the highest percentage (9.3 percent) since 1995 of all comparison states. Five peer states saw a decrease in traffic fatalities over this same period, while nationally the change was negligible. Oregon had the greatest decrease in fatalities at 21.4 percent.

- All comparison states have either seen no change or seen a decrease in the fatality rate per 100 million VMT since 1995. Iowa saw the greatest change in fatality rate per 100 million VMT, from 2.0 in 1995 to 1.5 in 2000. Louisiana had no change, while Mississippi decreased from a 2.9 fatality rate in 1995 to 2.7 in 2000. Nationally, the fatality rate per 100 million VMT decreased from 1.7 to 1.5.
- Of the comparison states, since 1995 Mississippi at 25 percent has had the 3<sup>d</sup> largest decrease in the percentage of traffic fatalities with a BAC of .10 or greater. The national percentage decrease was 23 percent. All comparison states had a decrease since 1995, with Arkansas and Iowa having the greatest changes at 52 and 44 percent decreases, respectively.
- Mississippi in 2000 had the lowest safety belt use rate of all peer states at 50.4 percent. Arkansas had the next lowest at 52.4 percent, while Oregon had the highest use rate at 83.6 percent. The national rate was 71 percent.

## **SUMMARY**

MDOT does not maintain jurisdiction over an inordinate share of the state's total system mileage, having ownership over proportionally less highway mileage than the average state. While MDOT has jurisdiction over 15 percent of the state's highway mileage, counties retain jurisdiction over a far greater share at 72 percent. Cities maintain jurisdiction over 12 percent of Mississippi's highway mileage. While nationally counties also maintain jurisdiction over a larger share of highway mileage than cities, the difference is much smaller at 45 percent vs. 30 percent.

Mississippi has a higher percentage of rural highway mileage than the national average, and a far greater percentage of vehicle miles traveled (VMT) on rural highway facilities than the national average as well. In fact, the percentage of total VMT in Mississippi on the state's rural highway network is more than twice that of the urban network, which is the reverse of the national average. Mississippi's annual average daily traffic count per lane (AADT) is higher on the rural system than the national average and most peer states, while lower on the urban network.

Mississippi does not experience congestion to the same degree as the average state, and on the rural highway network experiences congestion at a negligible level. The largest percentage of congested highway mileage identified is found on the state's urban highway network, which mirrors national and peer state trends. Generally speaking, Mississippi has lower congestion levels than both the average state and most peer states.

The highway network jurisdictional responsibility, along with the rural and urban trends for VMT, AADT and congestion levels, are indicative of Mississippi's rural nature, and the dependence of the state's general and commercial travel on the rural highway facilities, especially those that are higher order. In order to provide a highway network in sufficient condition and maintained to a level which continues to facilitate the free-flow of general and commercial travel, Mississippi must continue to focus on addressing the accessibility and mobility needs of the state's rural areas, and continue the progress made by programs such as the Four-Lane Highway Program, with a continued focus on areas of highest need.

To address the accessibility and mobility based needs, part of the focus will need to be directed towards improving the pavement condition of the state's highway infrastructure and correcting the deficiencies of the state's bridges, with additional focus placed on improving Mississippi's highway safety record. Such improvements, combined with the progress of initiatives such as the Four-Lane Highway Program, will help to address both economic and quality-of-life issues related to the state's highway network.