

Investing in the Transportation Infrastructure that Mississippians Deserve and Critically Need to Create Better Educational and Job Opportunities

Prepared for:



Prepared by:



CENTER FOR
**LOGISTICS, TRADE, AND
TRANSPORTATION**

Funded by:

Hearin Foundation

July 2014

EXECUTIVE SUMMARY:

Mississippi is at a critical point in the lifecycle of its transportation infrastructure and we must make decisions about how to maintain and improve our transportation system to create better educational and job opportunities. With federal funding for the future in doubt and an expanding number of roads and bridges in poor or deficient condition, failure to address the issue now will lead to greater costs for rehabilitation and maintenance. Mississippi motorists also would be adversely affected through additional expenses for vehicle repairs and lost time due to an increased level of congestion.

A commitment to transportation infrastructure will have long-term benefits for all Mississippians. As a rural state, transportation is vital in growing commerce and improving the quality of life for all citizens. A strong transportation system improves safety and health, encourages growth of manufacturing, reduces the cost of goods, services and agriculture products, and creates additional opportunities for tourism and leisure activities. Investing in the Transportation Infrastructure today will pay long-term dividends by creating jobs, broadening educational opportunities and building a stable workforce in Mississippi.

The economic development spurred by the 1987 Four-Lane Program is an example of the importance of making a commitment to transportation infrastructure. Mississippi currently spends about two-thirds the national per-mile average to maintain and construct state-owned highways. Those dollars are being used efficiently and despite the gap in funding. Mississippi will reap the benefits of additional investment for many years to come.



PREAMBLE:

The 1987 Four-Lane Program had a significant impact in the lives of all Mississippians by moving Mississippi from dead last in the nation in highway accessibility to the top performing tier among Blueprint Mississippi States, today. The 1987 Four Lane Program was created under House Bill 1206 (and after a series of revisions) encompassed a total of 1,807 miles of highway. However, the biggest challenge is still upon us as the Four-Lane Program focused on the construction of Four-Lane highways and did not consider funds to maintain the system or improve the thousands of road miles in all the Mississippi counties and cities that give access for millions of Mississippians to their homes, schools, workplaces, worship, stores, leisure areas, etc.

Therefore, it is a priority to prepare an aggressive plan to invest in the transportation infrastructure that Mississippians deserve and critically need to create better educational and job opportunities.

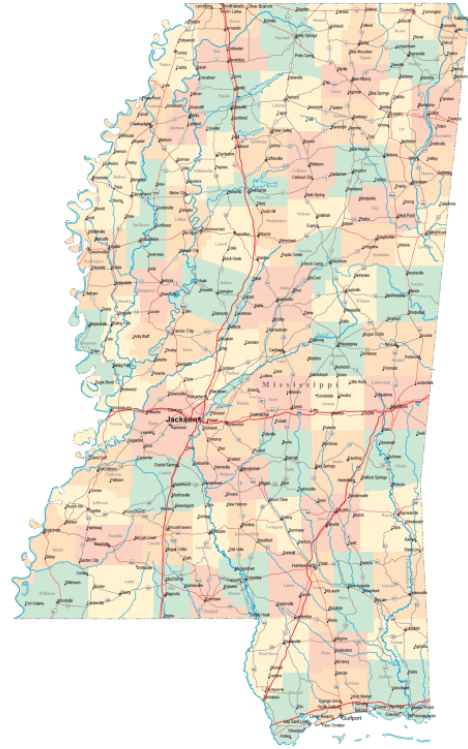


Figure 1- Mississippi's Major Roads and Highways

THE NEED:

1- Federal Funding in Doubt: The U.S. Transportation Infrastructure is deteriorating as the Federal Highway Trust Fund (HTF), which contributes the bulk of federal funding for transportation is on the fast track to bankruptcy and cannot support the complete funding needs of the states.

2- Poor Road Conditions: The lack of funding is evident in the most recent American Society of Civil Engineers' (ASCE) Report Card (2013) with U.S roads receiving a D grade. This means that road infrastructure is in poor to fair condition and mostly below standards. It means that many of U.S road infrastructure elements are approaching the end of their service life and a large portion of the road infrastructure system exhibits significant deterioration. This D grade also means that the condition and capacity of the road infrastructure are of significant concern due to a strong risk of failure (ASCE 2013). Mississippi obtained just a modestly better ASCE Report Card of a C grade. This means that road infrastructure is in fair to good condition; it shows general signs of deterioration and requires attention. Some elements exhibit significant deficiencies in conditions and functionality, with increasing vulnerability to risk. Poor road conditions impact the quality of life for rural citizens – restricting access to jobs, education, and health care. It also hinders economic growth in rural Mississippi – limiting access for agriculture, energy, manufacturing, forestry and tourism.

3- Deficient Bridges: The Federal Highway Administration record indicates that from a total of 607,751 bridges in the US, 63,522 are Structurally Deficient (~11%), and 84,348 are Functionally Obsolete (~14%). Mississippi (as of 2013) has 17,044 bridges of which 2,274 are Structurally Deficient(~13%), and 1,362 are Functionally Obsolete (~8%). A “structurally deficient” designation does not imply that a bridge is unsafe, but such bridges typically require significant maintenance and repair to remain in service, and would eventually require major rehabilitation or replacement to address the underlying deficiency. A bridge is considered “functionally obsolete” when it does not meet current design standards (for criteria such as lane width), either because the volume of traffic carried by the bridge exceeds the level anticipated when the bridge was constructed and/or the relevant design standards have been revised. Addressing functional deficiencies may require the widening or replacement of the structure. Furthermore, structurally deficient bridges present: safety hazards for our children – forcing buses to find new, longer routes; issues for our first responders– forcing emergency services vehicles to be use different routes, which takes them longer to respond; and issues for our businesses – forcing commercial vehicles (especially those supporting agriculture) to use longer more costly alternatives.

4- Increased Rehabilitation Cost: The poor road conditions have a negative impact on the rehabilitation cost as more funds are needed to rehabilitate roads in worst conditions (as shown in figure 2). The ASCE states for example after 25 years the cost per lane mile for reconstruction can be more than three times the cost of preservation treatments over the same time period.

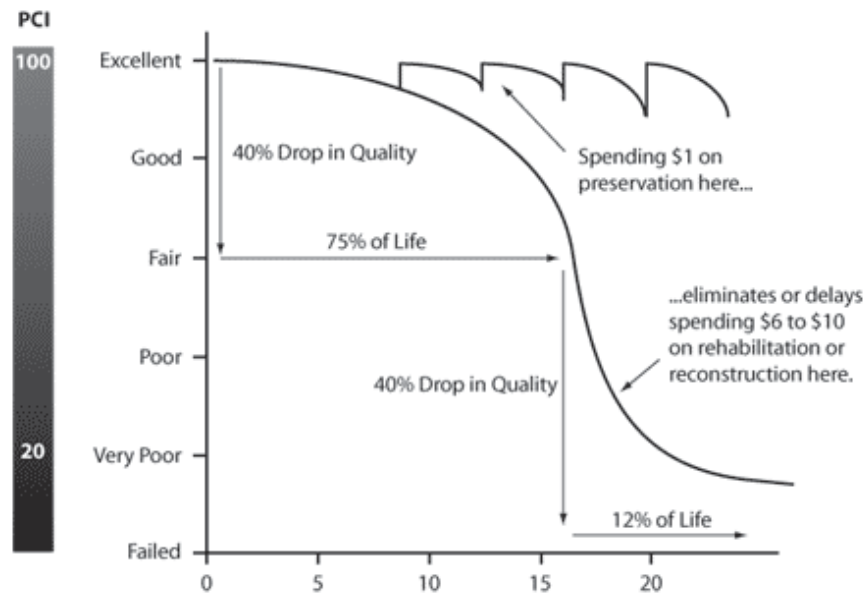


Figure 2 – Pavement Condition, Life Span and Rehabilitation Cost.

5- Additional Cost to Mississippians: The result of driving on these roads in such poor condition is that U.S. motorists are paying the price to the tune of \$67 billion, or \$324 per motorist (for vehicle repairs and maintenance). The deficiency in the pavement not only effects motorists

Investing in the Transportation Infrastructure that Mississippians Deserve and Critically Need to Create Better Educational and Job Opportunities

but also influences trucking companies and other heavy vehicle transportation and often leads to delays and added costs.

6- Additional Travel Time: Poor pavement conditions may also increase travel time due to drivers slowing down and avoiding risks like potholes, which can also escalate the level of congestion on the Highways most frequently traveled throughout the United States.

THE IMPORTANCE

1- Commerce Increase: The U.S. invests approximately \$275 billion per year, in transportation infrastructure resulting in U.S. trade with foreign countries of \$4.9 trillion in 2012. This consisted of \$2.2 trillion in exports and \$2.7 trillion in imports of both goods and services, with \$1 of every \$10 in the U.S. being tied to the transportation industry.

2- Transportation: More than 46 million Americans live in rural and less densely populated areas of the country where their primary mode of transportation is a personal vehicle. A considerable number of the 2,991,207 Mississippians live in rural and less densely populated areas (as shown in Figure 3).

3- Quality of life: America's rural transportation system is an integral component to the success and quality of life for U.S. farmers and ranchers. Adequate roads and bridges are necessary to deliver our agricultural bounty to markets at home and abroad. As we see additional growth and opportunities in rural America, we must work together to take advantage of those opportunities and to ensure that infrastructure supports and enhances our rural communities. The nation's rural roads provide crucial links from farm to market, moving manufactured and energy products, and provide access to countless tourist and recreational destinations.

4- Safety and Health: The safety and quality of life in America's small communities and rural areas and the health of the nation's economy ride on our rural transportation system. This backbone of the heartland allows mobility and connectivity for millions of rural Americans.

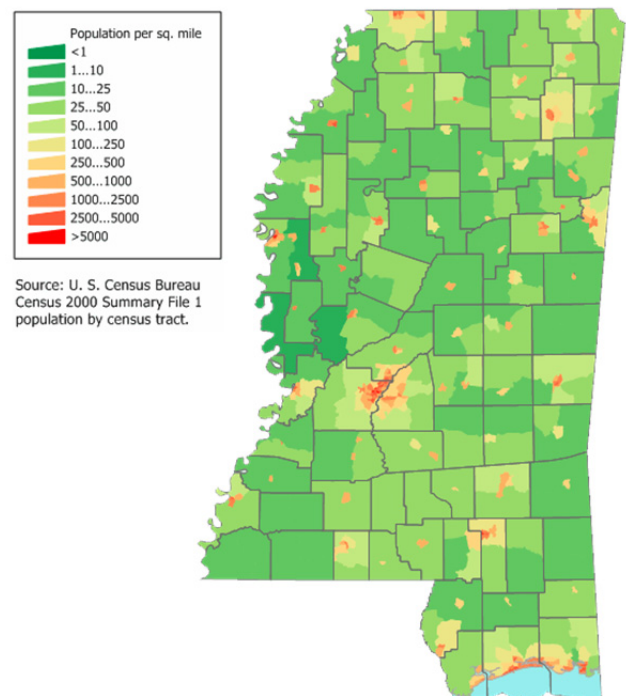


Figure 3 – Mississippi Density Population

Investing in the Transportation Infrastructure that Mississippians Deserve and Critically Need to Create Better Educational and Job Opportunities

5- Manufacturing: Many of our industry's manufacturing facilities and their workers are located in rural America, where they depend on safe and efficient roads for their livelihoods. (Sample company shown in Figure 4)



Figure 4 – Manufacturing and Jobs

6- Jobs and Economic Development: Modernization of our rural transportation system will create jobs and help ensure long-term economic development and quality of life in rural America.

7- Access to Goods and Services: E-commerce is growing at a rate of almost 20% per year and is tracking to outpace brick-and-mortar growth within the next five years. E-commerce makes it easier for the consumers to purchase products from his/her home and have them delivered right to his/her door. This would result to an increased number of direct home deliveries with tight time schedules and increase demand on the transportation infrastructure.

8- Leisure: Eighty-six percent of trips taken by Americans to visit rural areas are for leisure purposes. Popular tourism activities in rural America include hiking, golfing, biking, hunting, fishing and water sports. Rural areas are also home to beaches, national and state parks, and other amenities (as shown in Figure 5).



Figure 5 – Leisure Activities

9- Reduce Cost: A United States Department of Agriculture (USDA) report found that an effective transportation system supports rural economies, reducing the prices farmers pay for inputs such as seeds and fertilizers, raising the value of their crops and greatly increasing market access.