

Louisiana Transportation by the Numbers

MEETING THE STATE'S NEED FOR
SAFE, SMOOTH AND EFFICIENT MOBILITY



OCTOBER 2019



Founded in 1971, [TRIP](http://TRIPNET.ORG)® of Washington, DC, is a nonprofit organization that researches, evaluates and distributes economic and technical data on surface transportation issues. TRIP is sponsored by insurance companies, equipment manufacturers, distributors and suppliers; businesses involved in highway and transit engineering and construction; labor unions; and organizations concerned with efficient and safe surface transportation.

LOUISIANA KEY TRANSPORTATION FACTS

THE HIDDEN COSTS OF DEFICIENT ROADS

Driving on Louisiana roads that are deteriorated, congested and that lack some desirable safety features costs Louisiana drivers a total of \$6.9 billion each year. TRIP has calculated the cost to the average motorist in the state’s largest urban areas in the form of additional vehicle operating costs (VOC) as a result of driving on rough roads, the cost of lost time and wasted fuel due to congestion, and the financial cost of traffic crashes. The chart below details the cost of deficient roads statewide and for the average driver in the state’s largest urban areas.

Location	VOC	Congestion	Safety	TOTAL
Baton Rouge	\$730	\$1,011	\$550	\$2,291
Lafayette	\$888	\$691	\$554	\$2,133
New Orleans	\$657	\$1,103	\$399	\$2,159
Shreveport	\$661	\$653	\$502	\$1,816
Louisiana Statewide	\$2.1 Billion	\$2.5 Billion	\$2.3 Billion	\$6.9 Billion

LOUISIANA ROADS PROVIDE A ROUGH RIDE

Due to inadequate state and local funding, 47 percent of major roads and highways in Louisiana are in poor or mediocre condition. Driving on rough roads costs the average Louisiana driver \$625 annually in additional vehicle operating costs – a total of \$2.1 billion statewide. The chart below details pavement conditions on major urban roads in the state’s largest urban areas and statewide.

Location	Poor	Mediocre	Fair	Good
Baton Rouge	36%	25%	16%	22%
Lafayette	53%	19%	10%	18%
New Orleans	35%	24%	15%	26%
Shreveport	31%	28%	15%	27%
Louisiana Statewide	25%	22%	17%	36%

LOUISIANA BRIDGE CONDITIONS

Thirteen percent of Louisiana’s bridges are rated in poor/structurally deficient condition, meaning there is significant deterioration of the bridge deck, supports or other major components. Thirty-seven percent of the state’s bridges are rated in fair condition and the remaining 50 percent are in good condition. Most bridges are designed to last 50 years before major overhaul or replacement, although many newer bridges are being designed to last 75 years or longer. In Louisiana, 33 percent of the state’s bridges were built in 1969 or earlier. The chart below details bridge conditions statewide and in the state’s largest urban areas.

	Number Poor/ Structurally Deficient	Share Poor/ Structurally Deficient	Number Fair	Share Fair	Number Good	Share Good	Total Bridges
Baton Rouge	115	19%	224	37%	274	45%	613
Lafayette	53	12%	207	48%	175	40%	435
New Orleans	91	12%	278	36%	405	52%	774
Shreveport	122	13%	418	43%	427	44%	968
Louisiana Statewide	1,678	13%	4,733	37%	6,484	50%	12,899

LOUISIANA ROADS ARE INCREASINGLY CONGESTED

Congested roads choke commuting and commerce and cost Louisiana drivers \$2.5 billion each year in the form of lost time and wasted fuel. In the most congested urban areas, drivers lose up to \$1,103 and as many as 58 hours per year sitting in congestion.

Location	Hours Lost	Congestion Cost
Baton Rouge	58	\$1,011
Lafayette	31	\$691
New Orleans	58	\$1,103
Shreveport	28	\$653

LOUISIANA TRAFFIC SAFETY AND FATALITIES

From 2013 to 2017, 3,683 people were killed in traffic crashes in Louisiana. In 2017, Louisiana had 1.54 traffic fatalities for every 100 million miles traveled, the fifth highest rate in the nation.

Traffic crashes imposed a total of \$6.8 billion in economic costs in Louisiana in 2017 and traffic crashes in which a lack of adequate roadway safety features were likely a contributing factor imposed \$2.3 billion in economic costs. The chart below details the number of people killed in traffic crashes in the state's largest urban areas between 2015 and 2017, and the cost of traffic crashes per driver.

Location	Ave. Fatalities	Safety Cost
Baton Rouge	62	\$550
Lafayette	38	\$554
New Orleans	83	\$399
Shreveport	46	\$502

TRANSPORTATION AND ECONOMIC DEVELOPMENT

The health and future growth of Louisiana's economy is riding on its transportation system. Each year, \$503 billion in goods are shipped to and from sites in Louisiana. Increases in passenger and freight movement will place further burdens on the state's already deteriorated and congested network of roads and bridges.

According to a [report by the American Road & Transportation Builders Association](#), the design, construction and maintenance of transportation infrastructure in Louisiana support approximately 78,000 full-time jobs across all sectors of the state economy. These workers earn \$3.2 billion annually. Approximately one million full-time jobs in Louisiana in key industries like tourism, retail sales, agriculture and manufacturing are completely dependent on the state's transportation network.

INTRODUCTION

Louisiana's roads, highways and bridges form vital transportation links for the state's residents, visitors and businesses, providing daily access to homes, jobs, shopping, natural resources and recreation. Modernizing Louisiana's transportation system is critical to quality of life and economic competitiveness in the Pelican State. Inadequate transportation investment, which will result in deteriorated transportation facilities and diminished access, will negatively affect Louisiana's economic competitiveness and quality of life.

To accommodate population and economic growth, maintain its level of economic competitiveness and achieve further economic growth, Louisiana will need to maintain and modernize its roads, highways and bridges by improving the physical condition of its transportation network and enhancing the system's ability to provide efficient, reliable and safe mobility for residents, visitors and businesses. Making needed improvements to Louisiana's roads, highways, bridges and transit systems could also provide a significant boost to the state's economy by creating jobs in the short term and stimulating long-term economic growth as a result of enhanced mobility and access.

This report examines the condition, use and safety of Louisiana's roads, highways and bridges, and the state's future mobility needs. Sources of information for this report include the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), the Bureau of Transportation Statistics (BTS), the U.S. Census Bureau, the Texas Transportation Institute (TTI), the American Road & Transportation Builders Association (ARTBA), and the National Highway Traffic Safety Administration (NHTSA).

In addition to statewide data, the TRIP report includes regional data for the Baton Rouge, Lafayette, New Orleans and Shreveport urban areas. An urban area is defined as a region's municipalities and surrounding suburbs for pavement condition and congestion data; bridge and traffic fatality data include a region's major counties.¹

POPULATION, TRAVEL AND ECONOMIC TRENDS IN LOUISIANA

Louisiana motorists and businesses require a high level of personal and commercial mobility. To foster quality of life and spur continued economic growth, it is critical that the state provide a safe and modern transportation system that can accommodate future growth in population, tourism, business, recreation and vehicle travel.

Louisiana's population grew to approximately 4.7 million residents in 2018, a four percent increase since 2000.² Louisiana had approximately 3.4 million licensed drivers in 2017.³ In 2017, the

state's transportation system carried 49.2 billion annual vehicle miles of travel (VMT), a 20 percent increase since 2000.⁴ From 2000 to 2018, Louisiana's gross domestic product (GDP), a measure of the state's economic output, increased by 12 percent, when adjusted for inflation.⁵ U.S. GDP increased 41 percent during the same period.⁶

CONDITION OF LOUISIANA ROADS

The life cycle of Louisiana's roads is greatly affected by the state and local governments' ability to perform timely maintenance and upgrades to ensure that road and highway surfaces last as long as possible.

The pavement data in this report, which is for all arterial and collector roads and highways, is provided by the Federal Highway Administration (FHWA), based on data submitted annually by the Louisiana Department of Transportation & Development on the condition of major state and locally maintained roads and highways. Pavement data for Interstate highways and other principal arterials is collected for all system mileage, whereas pavement data for minor arterial and all collector roads and highways is based on sampling portions of roadways as prescribed by FHWA to insure the data collected is adequate to provide an accurate assessment of pavement conditions on these roads and highways.

Statewide, 47 of Louisiana's major roads are in poor or mediocre condition. Twenty-five percent of Louisiana's major locally and state-maintained roads are in poor condition and 22 percent are in mediocre condition.⁷ Seventeen percent of Louisiana's major roads are in fair condition and the remaining 36 percent are in good condition.⁸

Thirty-six percent of Louisiana's major locally and state-maintained urban roads and highways have pavements rated in poor condition and 25 percent are in mediocre condition.⁹ Fifteen percent of Louisiana's major urban roads are rated in fair condition and the remaining 24 percent are rated in good condition.¹⁰

Nineteen percent of Louisiana's major locally and state-maintained rural roads and highways have pavements rated in poor condition and 21 percent are in mediocre condition.¹¹ Eighteen percent of Louisiana's major rural roads are rated in fair condition and the remaining 43 percent are rated in good condition.¹² The chart below details pavement conditions on major urban roads in the state's largest urban areas and statewide.¹³

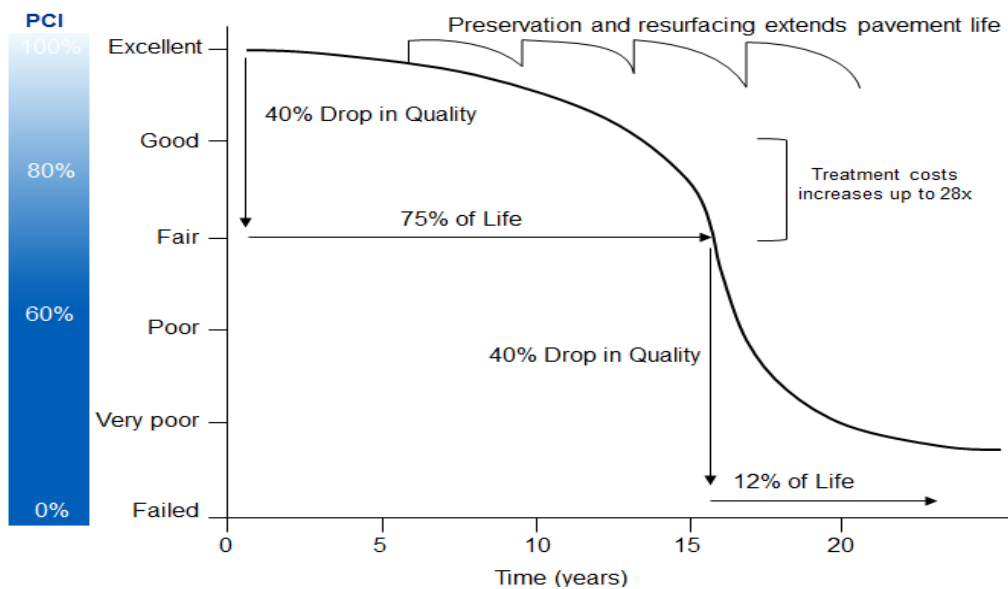
Chart 1. Pavement conditions on major roads in Louisiana’s largest urban areas and statewide.

Location	Poor	Mediocre	Fair	Good
Baton Rouge	36%	25%	16%	22%
Lafayette	53%	19%	10%	18%
New Orleans	35%	24%	15%	26%
Shreveport	31%	28%	15%	27%
Louisiana Statewide	25%	22%	17%	36%

Source: TRIP analysis of Federal Highway Administration data.

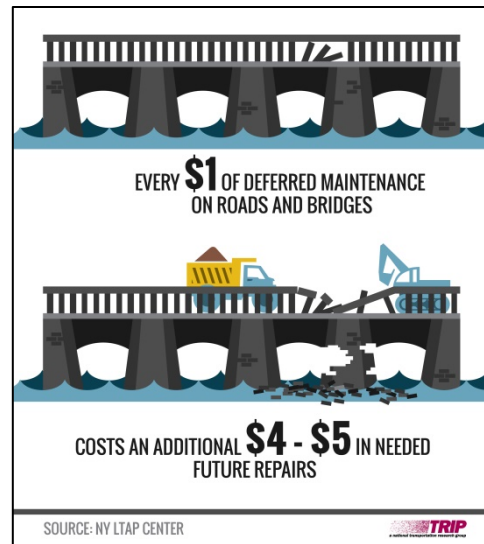
Pavement failure is caused by a combination of traffic, moisture and climate. Moisture often works its way into road surfaces and the materials that form the road’s foundation. Road surfaces at intersections are more prone to deterioration because the slow-moving or standing loads occurring at these sites subject the pavement to higher levels of stress. It is critical that roads are fixed before they require major repairs because reconstructing roads costs approximately four times more than resurfacing them.¹⁴ As roads and highways continue to age, they will reach a point of deterioration where routine paving and maintenance will not be adequate to keep pavement surfaces in good condition and costly reconstruction of the roadway and its underlying surfaces will become necessary.

Chart 2. Pavement Condition Cycle Time with Treatment and Cost



Source: North Carolina Department of Transportation (2016). [2016 Maintenance Operations and Performance Analysis Report](#)

Long-term repair costs increase significantly when road and bridge maintenance is deferred, as road and bridge deterioration accelerates later in the service life of a transportation facility and requires more costly repairs. A [report on maintaining pavements](#) found that every \$1 of deferred maintenance on roads and bridges costs an additional \$4 to \$5 in needed future repairs.¹⁵



THE COST TO MOTORISTS OF ROADS IN INADEQUATE CONDITION

TRIP has calculated the additional cost to motorists of driving on roads in poor, mediocre or fair condition. When roads are in poor, mediocre or fair condition – which may include potholes, rutting or rough surfaces – the cost to operate and maintain a vehicle increases. These additional vehicle operating costs (VOC) include accelerated vehicle depreciation, additional vehicle repair costs, increased fuel consumption and increased tire wear. TRIP estimates that additional VOC borne by Louisiana motorists as a result of deteriorated road conditions is \$2.1 billion annually, an average of \$625 per driver statewide.¹⁶ The chart below details additional VOC per motorist in the state’s largest urban areas.

Chart 3. Vehicle operating costs per motorist as a result of driving on deteriorated roads.

Location	VOC
Baton Rouge	\$730
Lafayette	\$888
New Orleans	\$657
Shreveport	\$661
Louisiana Statewide	\$2.1 Billion

Source: TRIP estimates.

Additional vehicle operating costs have been calculated in the Highway Development and Management Model (HDM), which is recognized by the U.S. Department of Transportation and more than 100 other countries as the definitive analysis of the impact of road conditions on vehicle operating costs. The HDM report is based on numerous studies that have measured the impact of various factors, including road conditions, on vehicle operating costs.¹⁷ The HDM study found that road deterioration increases ownership, repair, fuel and tire costs. The report found that deteriorated roads

accelerate the pace of depreciation of vehicles and the need for repairs because the stress on the vehicle increases in proportion to the level of roughness of the pavement surface. Similarly, tire wear and fuel consumption increase as roads deteriorate since there is less efficient transfer of power to the drive train and additional friction between the road and the tires.

TRIP's additional VOC estimate is based on taking the average number of miles driven annually by a motorist, calculating current VOC based on [AAA's 2018 driving cost estimates](#) and then using the HDM model to estimate the additional VOC paid by drivers as a result of substandard roads.¹⁸ Additional research on the impact of road conditions on fuel consumption by the Texas Transportation Institute (TTI) is also factored into TRIP's vehicle operating cost methodology.

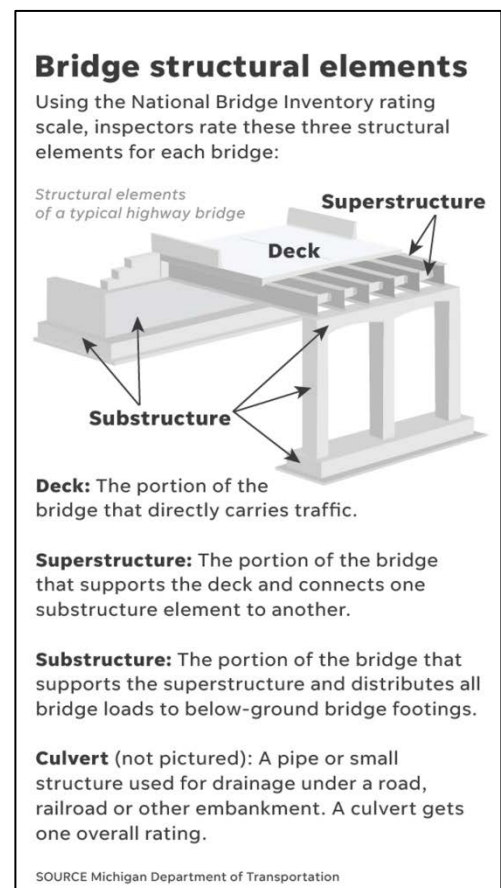
BRIDGE CONDITIONS IN LOUISIANA

Louisiana's bridges form key links in the state's highway system, providing communities and individuals access to employment, schools, shopping and medical facilities, and facilitating commerce and access for emergency vehicles.

Thirteen percent (1,678 of 12,899) of Louisiana's locally and state-maintained bridges are rated in poor/structurally deficient condition.¹⁹ This includes all bridges that are 20 feet or more in length. A bridge is deemed structurally deficient if there is significant deterioration of the bridge deck, supports or other major components.

Bridges that are structurally deficient may be posted for lower weight limits or closed if their condition warrants such action. Deteriorated bridges can have a significant impact on daily life. Restrictions on vehicle weight may cause many vehicles – especially emergency vehicles, commercial trucks, school buses and farm equipment – to use alternate routes to avoid posted bridges. Redirected trips also lengthen travel time, waste fuel and reduce the efficiency of the local economy.

Thirty-seven percent of Louisiana's locally and state-maintained bridges have been rated in fair condition.²⁰ A fair rating indicates that a bridge's structural elements are sound but minor



deterioration has occurred to the bridge’s deck, substructure or superstructure. The remaining 50 percent of the state’s bridges are rated in good condition.²¹

The chart below shows the condition of bridges statewide and in Louisiana’s largest urban areas.

Chart 4. Bridge conditions statewide and in Louisiana’s largest urban areas.

	Number Poor/ Structurally Deficient	Share Poor/ Structurally Deficient	Number Fair	Share Fair	Number Good	Share Good	Total Bridges
Baton Rouge	115	19%	224	37%	274	45%	613
Lafayette	53	12%	207	48%	175	40%	435
New Orleans	91	12%	278	36%	405	52%	774
Shreveport	122	13%	418	43%	427	44%	968
Louisiana Statewide	1,678	13%	4,733	37%	6,484	50%	12,899

Source: TRIP analysis of Federal Highway Administration National Bridge Inventory (2018).

Most bridges are designed to last 50 years before major overhaul or replacement, although many newer bridges are being designed to last 75 years or longer. In Louisiana, 33 percent of the state’s bridges were built in 1969 or earlier.²²

The service life of bridges can be extended by performing routine maintenance such as resurfacing decks, painting surfaces, insuring that a facility has good drainage and replacing deteriorating components. But, most bridges will eventually require more costly reconstruction or major rehabilitation to remain operable.

TRAFFIC SAFETY IN LOUISIANA

A total of 3,683 people were killed in Louisiana traffic crashes from 2013 to 2017, an average of 737 fatalities per year.²³

Chart 5. Traffic Fatalities in Louisiana 2013 – 2017.

Year	Fatalities
2013	703
2014	737
2015	726
2016	757
2017	760
TOTAL	3,683
AVERAGE	737

Source: National Highway Traffic Safety Administration.

Three major factors are associated with fatal vehicle crashes: driver behavior, vehicle characteristics and roadway features. It is estimated that roadway features are likely a contributing factor in approximately one-third of fatal traffic crashes. Roadway features that impact safety include the number of lanes, lane widths, lighting, lane markings, rumble strips, shoulders, guard rails, other shielding devices, median barriers and intersection design.

Louisiana’s overall traffic fatality rate of 1.54 fatalities per 100 million vehicle miles of travel in 2017 is the fifth highest in the U.S. and significantly higher than the national average of 1.16.²⁴ The traffic fatality rate on the state’s rural roads is disproportionately high. The fatality rate on Louisiana’s non-interstate rural roads is more than double that on all other roads in the state (2.48 fatalities per 100 million vehicle miles of travel vs. 1.21).²⁵

The chart below details the number of people killed in traffic crashes in the state’s largest urban areas between 2015 and 2017, and the cost of traffic crashes per driver.

Chart 6. Average fatalities between 2015 and 2017 and crash cost per driver.

Location	Ave. Fatalities	Safety Cost
Baton Rouge	62	\$550
Lafayette	38	\$554
New Orleans	83	\$399
Shreveport	46	\$502

Source: TRIP analysis.

Traffic crashes in Louisiana imposed a total of \$6.8 billion in economic costs in 2017.²⁶ TRIP estimates that roadway features were likely a contributing factor in approximately one-third of all fatal traffic crashes, resulting in \$2.3 billion in economic costs in Louisiana in 2017.²⁷ According to a [2015 National Highway Traffic Safety Administration \(NHTSA\) report](#), the economic costs of traffic crashes includes work and household productivity losses, property damage, medical costs, rehabilitation costs, legal and court costs, congestion costs and emergency services.²⁸

Improving safety on Louisiana’s roadways can be achieved through further improvements in vehicle safety; improvements in driver, pedestrian, and bicyclist behavior; and, a variety of improvements in roadway safety features. The severity of serious traffic crashes could be reduced through roadway improvements, where appropriate, such as converting intersections to roundabouts; removing or shielding roadside objects; the addition of left-turn lanes at intersections; the signalization of intersections; adding or improving median barriers; improved lighting; adding centerline or shoulder rumble strips; providing appropriate pedestrian and bicycle facilities, including

sidewalks and bicycle lanes; providing wider lanes, wider and paved shoulders; upgrading roads from two lanes to four lanes; providing better road and lane markings; and updating rail crossings.

The U.S. has a \$146 billion backlog in needed roadway safety improvements, according to a 2017 [report](#) from the AAA Foundation for Traffic Safety. The report found implementing these cost-effective and needed roadway safety improvements on U.S. roadways would save approximately 63,700 lives and reduce the number of serious injuries as a result of traffic crashes by approximately 350,000 over 20 years.

TRAFFIC CONGESTION IN LOUISIANA

Increasing levels of traffic congestion cause significant delays in Louisiana, particularly in its larger urban areas, choking commuting and commerce. Traffic congestion robs commuters of time and money and imposes increased costs on businesses, shippers and manufacturers, which are often passed along to the consumer. Increased levels of congestion can also reduce the attractiveness of a location to a company when considering expansion or where to locate a new facility.

Based on TTI methodology, TRIP estimates the total value of lost time and wasted fuel in Louisiana is approximately \$2.5 billion a year. The chart below shows the number of hours lost annually for each driver in the state’s largest urban areas, and the per-driver cost of lost time and wasted fuel due to congestion.

Chart 7. Annual hours lost to congestion and congestion costs per driver.

Location	Hours Lost	Congestion Cost
Baton Rouge	58	\$1,011
Lafayette	31	\$691
New Orleans	58	\$1,103
Shreveport	28	\$653

Source: Texas Transportation Institute Urban Mobility Report, 2019.

TRANSPORTATION AND ECONOMIC GROWTH

Today’s culture of business demands that an area have well-maintained and efficient roads, highways and bridges if it is to remain economically competitive. Global communications and the impact of free trade in North America and elsewhere have resulted in a significant increase in freight

movement, making the quality of a region's transportation system a key component in a business's ability to compete locally, nationally and internationally.

Businesses have responded to improved communications and the need to cut costs with a variety of innovations including just-in-time delivery, increased small package delivery, demand-side inventory management and e-commerce. The result of these changes has been a significant improvement in logistics efficiency as firms move from a push-style distribution system, which relies on large-scale warehousing of materials, to a pull-style distribution system, which relies on smaller, more strategic movement of goods. These improvements have made mobile inventories the norm, resulting in the nation's trucks literally becoming rolling warehouses.

Highways are vitally important to continued economic development in Louisiana. As the economy expands, creating more jobs and increasing consumer confidence, the demand for consumer and business products grows. In turn, manufacturers ship greater quantities of goods to market to meet this demand, a process that adds to truck traffic on the state's highways and major arterial roads.

Every year, \$503 billion in goods are shipped to and from sites in Louisiana.²⁹ Forty-three percent of the goods shipped annually to and from sites in Louisiana are carried by truck and another 10 percent are carried by courier services or multiple-mode deliveries, which include trucking.³⁰ The value of freight shipped to and from sites in Louisiana, in inflation-adjusted dollars, is expected to increase 78 percent by 2045 and by 112 percent for goods shipped by trucks.³¹

Investments in transportation improvements in Louisiana play a critical role in the state's economy. A [report by the American Road & Transportation Builders Association](#) found that the design, construction and maintenance of transportation infrastructure supports the equivalent of approximately 78,000 full-time jobs across all sectors of the state economy, earning these workers approximately \$3.2 billion annually.³² These jobs include approximately 39,000 full-time jobs directly involved in transportation infrastructure construction and related activities. Spending by employees and companies in the transportation design and construction industry supports an additional 39,000 full-time jobs in Louisiana.³³ Transportation construction in Louisiana contributes an estimated \$582 million annually in state and local income, corporate and unemployment insurance taxes and the federal payroll tax.³⁴

Approximately one million full-time jobs in Louisiana in key industries like tourism, retail sales, agriculture and manufacturing are dependent on the quality, safety and reliability of the state's transportation infrastructure network. These workers earn \$43.9 billion in wages and contribute an

estimated \$8 billion in state and local income, corporate and unemployment insurance taxes and the federal payroll tax.³⁵

Local, regional and state economic performance is improved when a region's surface transportation system is expanded or repaired. This improvement comes as a result of the initial job creation and increased employment created over the long-term because of improved access, reduced transport costs and improved safety.

Increasingly, companies are looking at the quality of a region's transportation system when deciding where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses relocate to areas with a smoother, more efficient and more modern transportation system. Highway accessibility was ranked the third highest site selection factor behind the availability of skilled labor and labor costs in a 2018 [survey](#) of corporate executives by Area Development Magazine.³⁶

TRANSPORTATION FUNDING IN LOUISIANA

Investment in Louisiana's roads, highways and bridges is funded by local, state and federal governments. A lack of sufficient funding at all levels will make it difficult to adequately maintain and improve the state's existing transportation system.

The federal government is a critical source of funding for Louisiana's roads, highways, bridges and transit systems and provides a significant return in road and bridge funding based on the revenue generated in the state by the federal motor fuel tax.

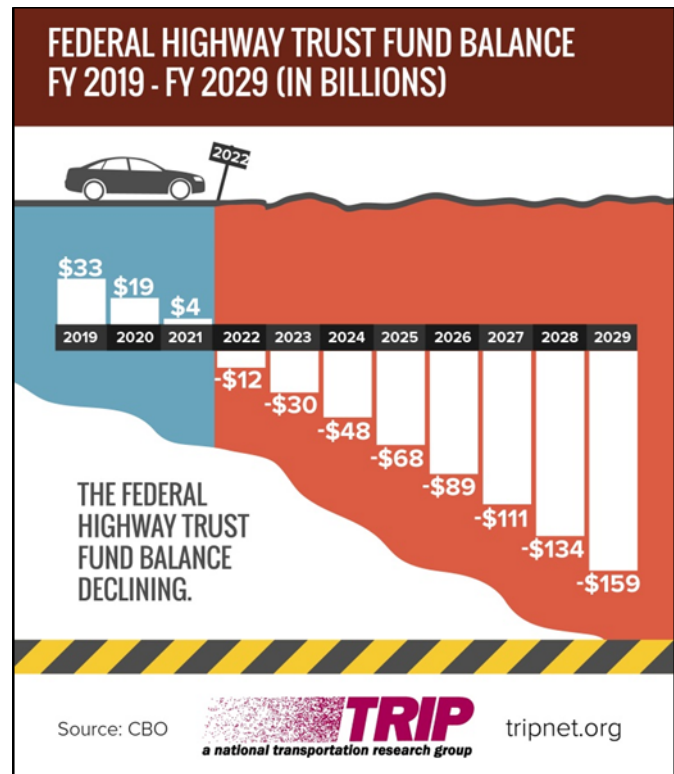
Most federal funds for highway and transit improvements in Louisiana are provided by federal highway user fees, largely an 18.4 cents-per-gallon tax on gasoline and a 24.4 cents-per-gallon tax on diesel fuel. Since 2008 revenue into the federal Highway Trust Fund has been inadequate to support legislatively set funding levels so Congress has transferred approximately \$53 billion in general funds and an additional \$2 billion from a related trust fund into the federal Highway Trust Fund.³⁷

Signed into law in December 2015, the [Fixing America's Surface Transportation Act \(FAST Act\)](#), provides modest increases in federal highway and transit spending. The five-year bill also provides states with greater funding certainty and streamlines the federal project approval process. But, the FAST Act does not provide adequate funding to meet the nation's need for highway and transit improvements and does not include a long-term and sustainable funding source.

The five-year, \$305 billion FAST Act will provide a boost of approximately 15 percent in highway funding and 18 percent in transit

funding over the duration of the program, which expires in 2020.³⁸ In addition to federal motor fuel tax revenues, the FAST Act will also be funded by \$70 billion in U.S. general funds, which will rely on offsets from several unrelated federal programs including the Strategic Petroleum Reserve, the Federal Reserve and U.S. Customs.

According to the [2015 Status of the Nation's Highways, Bridges and Transit: Conditions and Performance](#) report submitted by the United States Department of Transportation (USDOT) to Congress, the nation faces an \$836 billion backlog in needed repairs and improvements to the nation's roads, highways and bridges.³⁹ The USDOT report found that the nation's current \$105 billion investment in roads, highways and bridges by all levels of government should be increased by 35 percent to \$142.5 billion annually to improve the conditions of roads, highways and bridges, relieve traffic congestion and improve traffic safety.



CONCLUSION

As Louisiana works to enhance its thriving, growing and dynamic state, it will be critical that it is able to address the most significant transportation issues by providing a 21st century network of roads, highways, bridges and transit that can accommodate the mobility demands of a modern society.

Louisiana will need to modernize its surface transportation system by improving the physical condition of its transportation network and enhancing the system's ability to provide efficient, safe and reliable mobility for residents, visitors and businesses. Making needed improvements to the state's roads, highways, bridges and transit systems would provide a significant boost to the economy by creating jobs in the short term and stimulating long-term economic growth as a result of enhanced mobility and access.

Numerous projects to improve the condition and expand the capacity of Louisiana's roads, highways, bridges and transit systems will not be able to proceed without a substantial boost in state or local transportation funding. If Louisiana is unable to complete needed transportation projects it will hamper the state's ability to improve the condition and efficiency of its transportation system or enhance economic development opportunities and quality of life.

###

ENDNOTES

-
- ¹ Bridge condition data and safety data for each urban area includes the parishes noted: Baton Rouge – East Baton Rouge and West Baton Rouge Parishes; New Orleans – Orleans, Jefferson and St. Bernard Parishes; Shreveport – Caddo and Bossier Parishes; Lafayette – Lafayette and St. Martin Parishes.
- ² U.S. Census Bureau (2018).
- ³ Highway Statistics (2017). Federal Highway Administration. DL-1C.
- ⁴ U.S. Department of Transportation - Federal Highway Administration: Highway Statistics 2000 and 2017 and analysis of Federal Highway Administration Traffic Volume Trends (2017)
https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm
- ⁵ TRIP analysis of Bureau of Economic Analysis data (2019).
<https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1>
- ⁶ Ibid.
- ⁷ Federal Highway Administration (2018). Pavement condition data is for 2017.
- ⁸ Ibid.
- ⁹ Ibid.
- ¹⁰ Ibid.
- ¹¹ Ibid.
- ¹² Ibid.
- ¹³ Ibid.
- ¹⁴ Selecting a Preventative Maintenance Treatment for Flexible Pavements. R. Hicks, J. Moulthrop. Transportation Research Board. 1999. Figure 1.
- ¹⁵ [Pavement Maintenance](#), by David P. Orr, PE Senior Engineer, Cornell Local Roads Program, March 2006.
- ¹⁶ TRIP calculation.
- ¹⁷ Highway Development and Management: Volume Seven. Modeling Road User and Environmental Effects in HDM-4. Bennett, C. and Greenwood, I. 2000.
- ¹⁸ Your Driving Costs. American Automobile Association. 2018.
- ¹⁹ Federal Highway Administration National Bridge Inventory. 2018.
- ²⁰ Ibid.
- ²¹ Ibid.
- ²² TRIP analysis of Federal Highway Administration National Bridge Inventory data (2018).
- ²³ Federal Highway Administration National Highway Traffic Safety Administration, 2013-2017.
- ²⁴ TRIP analysis of National Highway Traffic Safety Administration and Federal Highway Administration data (2018). Data is for 2017.
- ²⁵ TRIP analysis of National Highway Traffic Safety Administration and Federal Highway Administration data (2017).
- ²⁶ TRIP estimate based on NHTSA report “The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), 2016. P. 146.
- ²⁷ Ibid.
- ²⁸ The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised) (2015). National Highway Traffic Safety Administration. P. 1. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812013>
- ²⁹ TRIP analysis of Bureau of Transportation Statistics, U.S. Department of Transportation. 2016 Commodity Flow Survey, State Summaries.
- ³⁰ Ibid.
- ³¹ Ibid.
- ³² American Road & Transportation Builders Association (2015). The 2015 U.S. Transportation Construction Industry Profile. https://www.transportationcreatesjobs.org/pdf/Economic_Profile.pdf
- ³³ Ibid.
- ³⁴ Ibid.
- ³⁵ Ibid.
- ³⁶ Area Development Magazine (2019). 33rd Annual Survey of Corporate Executives: Availability of Skilled Labor New Top Priority. <http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2019/33rd-annual-corporate-survey-15th-annual-consultants-survey.shtml>

³⁷ “Surface Transportation Reauthorization and the Solvency of the Highway Trust Fund,” presentation by Jim Tymon, American Association of State Highway and Transportation Officials (2014).

³⁸ 2015 “Fixing America’s Surface Transportation Act.” (2015) American Road and Transportation Builders Association. <http://www.artba.org/newslines/wp-content/uploads/2015/12/ANALYSIS-FINAL.pdf>

³⁹ United States Department of Transportation (2015). 2015 Status of the Nation’s Highways, Bridges, and Transit: Conditions and Performance. Executive Summary, Chapter 8. <https://www.fhwa.dot.gov/policy/2015cpr/es.cfm#8h>