

Arkansas Transportation by the Numbers

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



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Founded in 1971, TRIP® 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.

EXECUTIVE SUMMARY

Modernizing Arkansas’ transportation system is critical to quality of life and economic competitiveness in the Natural State. Inadequate transportation investment, which will result in deteriorated transportation facilities and diminished access, will negatively affect Arkansas’ economic competitiveness and quality of life. This report examines the condition, use, safety and funding needs of Arkansas’s roads and bridges.

THE HIDDEN COSTS OF DEFICIENT ROADS

Driving on Arkansas roads that are deteriorated, congested and that lack some desirable safety features costs Arkansas drivers a total of \$3.2 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 as a result of driving on rough roads, the financial cost of traffic crashes in which the lack of adequate roadway safety features was likely a contributing factor and the cost of lost time and wasted fuel due to congestion.**

Location	Vehicle Operating Costs due to Rough Roads	Cost of Traffic Crashes	Time and Fuel Lost to Congestion	Total Cost per Average Driver
Fayetteville-Springdale-Rogers	\$389	\$198	\$677	\$1,264
Fort Smith	\$623	\$361	\$484	\$1,468
Hot Springs	\$760	\$146	\$392	\$1,298
Jonesboro	\$322	\$366	\$486	\$1,174
Little Rock-North Little Rock-Conway	\$644	\$318	\$711	\$1,673
Pine Bluff	\$517	\$422	\$230	\$1,169
West Memphis	\$473	\$698	\$651	\$1,822
Arkansas Statewide	\$1.6 Billion	\$839 Million	\$780 Million	\$3.2 Billion

ARKANSAS ROADS PROVIDE A ROUGH RIDE

Due to inadequate state and local funding, 52 percent of major state and locally maintained roads and highways in Arkansas are in poor or mediocre condition. Driving on rough roads costs the average Arkansas driver \$642 annually in additional vehicle operating costs – a total of \$1.6 billion statewide. The chart below details pavement conditions on major roads in the state’s largest urban areas and statewide.

Location	Poor	Mediocre	Fair	Good
Fayetteville-Springdale-Rogers	10%	22%	26%	42%
Fort Smith	23%	34%	13%	30%
Hot Springs	34%	29%	18%	19%
Jonesboro	4%	20%	39%	37%
Little Rock-North Little Rock-Conway	24%	33%	17%	25%
Pine Bluff	14%	37%	16%	33%
West Memphis	17%	22%	19%	43%
Arkansas Statewide	26%	26%	17%	31%

ARKANSAS VEHICLE TRAVEL AND CONGESTION INCREASING

In 2018, the state's transportation system carried 37 billion annual vehicle miles of travel (VMT), a 26 percent increase since 2000. Congested roads choke commuting and commerce and cost Arkansas drivers \$780 million each year in the form of lost time and wasted fuel. In the most congested urban areas, drivers lose up to \$711 and as many as 40 hours per year sitting in congestion. The chart below shows the annual number of hours lost to congestion per driver and the average cost per driver of lost time and wasted fuel due to congestion in the state's largest urban areas.

Location	Hours Lost to Congestion	Annual Cost Per Driver
Fayetteville-Springdale-Rogers	33	\$677
Fort Smith	24	\$484
Hot Springs	20	\$392
Jonesboro	25	\$486
Little Rock-North Little Rock-Conway	40	\$711
Pine Bluff	11	\$230
West Memphis	48	\$651

ARKANSAS TRAFFIC SAFETY AND FATALITIES

From 2014 to 2018 2,551 people were killed in traffic crashes in Arkansas. In 2018, Arkansas had 1.41 traffic fatalities for every 100 million vehicle miles traveled, the 12th highest rate in the U.S. and significantly higher than the national average of 1.13. The fatality rate on Arkansas' non-interstate rural roads is nearly double that on all other roads in the state (2.04 fatalities per 100 million vehicle miles of travel vs 1.04).

Traffic crashes imposed a total of \$2.5 billion in economic costs in Arkansas in 2018 and traffic crashes in which a lack of adequate roadway safety features were likely a contributing factor imposed \$839 million in economic costs. The chart below shows the average number of people killed in traffic crashes in the state's largest urban areas between 2016 and 2018, and the cost of traffic crashes per driver.

Location	Average Fatalities 2016-18	Safety Costs per Driver
Fayetteville-Springdale-Rogers	45	\$198
Fort Smith	45	\$361
Hot Springs	33	\$146
Jonesboro	18	\$366
Little Rock-North Little Rock-Conway	72	\$318
Pine Bluff	12	\$422
West Memphis	15	\$698

ARKANSAS BRIDGE CONDITIONS

Five percent of Arkansas’ bridges are rated in poor/structurally deficient condition. Bridges that are rated poor/structurally deficient have significant deterioration of the bridge deck, supports or other major components. Forty-four percent of the state’s bridges are rated in fair condition and the remaining 51 percent are in good condition. The chart below details bridge conditions statewide and in the state’s largest urban areas.

Location	Poor/Structurally Deficient Bridges		Fair Bridges		Good Bridges		Total Bridges
	Number	Share	Number	Share	Number	Share	
Fayetteville-Springdale-Rogers	44	5%	474	56%	324	38%	842
Fort Smith	46	4%	635	49%	577	44%	1,305
Hot Springs	20	4%	348	67%	154	30%	522
Jonesboro	22	5%	84	19%	330	76%	436
Little Rock-North Little Rock-Conway	20	2%	424	46%	487	52%	931
Pine Bluff	14	4%	82	24%	246	72%	342
West Memphis	5	2%	81	35%	147	63%	233
Arkansas Statewide	626	5%	5,678	44%	6,598	51%	12,902

ARKANSAS TRANSPORTATION FUNDING

The federal [Fixing America’s Surface Transportation Act \(FAST Act\)](#), which expires on September 30, 2020, is a major source of funding for road, highway and bridge repairs in Arkansas. Throughout the five years of the FAST-Act – fiscal years 2016 to 2020 – the program will provide \$2.7 billion to Arkansas for road repairs and improvements, an average of \$548 million per year. From 2014 to 2018, the federal government provided \$1.23 for road improvements in Arkansas for every \$1.00 state motorists paid in federal highway user fees, including the federal state motor fuel tax.

From 2014 to 2018, federal funds provided for highway improvements were the equivalent of 53 percent of the amount of Arkansas state capital outlays on road, highway and bridge projects, including construction, engineering and right-of-way acquisition.

TRANSPORTATION AND ECONOMIC DEVELOPMENT

The health and future growth of Arkansas’ economy is riding on its surface transportation system. Each year, \$226 billion in goods are shipped to and from sites in Arkansas, mostly by truck. Increases in passenger and freight movement will place further burdens on the state’s already deteriorated and congested surface transportation system. The value of freight shipped to and from sites in Arkansas, when adjusted for inflation, is expected to increase by 90 percent by 2045, and by 75 percent by 2045 for goods shipped by trucks.

A [report](#) by the [American Road & Transportation Builders Association](#) found that the design, construction and maintenance of transportation infrastructure in Arkansas supports approximately 35,000 full-time jobs across all sectors of the state economy. These workers earn \$964 million annually. Approximately 594,000 full-time jobs in Arkansas in key industries like tourism, manufacturing, retail sales and agriculture are completely dependent on the state’s transportation infrastructure network.

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). Cover page photo credit: Arkansas Good Roads Foundation.

INTRODUCTION

Arkansas' 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 Arkansas' transportation system is critical to quality of life and economic competitiveness in the Natural State. Inadequate transportation investment, which will result in deteriorated transportation facilities and diminished access, will negatively affect Arkansas' economic competitiveness and quality of life.

To accommodate population and economic growth, maintain its level of economic competitiveness and achieve further economic growth, Arkansas will need to continue 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 Arkansas' 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. The importance of Arkansas' surface transportation system and the reliable movement of goods it provides has been heightened during the COVID-19 pandemic.

This report examines the condition, use and safety of Arkansas' 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 Fayetteville-Springdale-Rogers, Fort Smith, Hot Springs, Jonesboro, Little Rock- North Little Rock- Conway, Pine Bluff and West Memphis 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 ARKANSAS

Arkansas 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.

Arkansas' population grew to approximately three million residents in 2019, a 13 percent increase since 2000.² Arkansas had approximately 2.1 million licensed drivers in 2018.³ From 2000 to 2019, Arkansas' gross domestic product (GDP), a measure of the state's economic output, increased by 32 percent, when adjusted for inflation.⁴ U.S. GDP increased 45 percent during the same period.⁵ In 2018, the state's transportation system carried 36.7 billion annual vehicle miles of travel (VMT), a 26 percent increase since 2000, and the 15th highest rate of vehicle travel growth in the nation during that time.⁶ From 2013-2018, VMT in Arkansas increased 10 percent.⁷

CONDITION OF ARKANSAS ROADS

The life cycle of Arkansas’ 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 Arkansas Department of Transportation 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, 52 percent of Arkansas’ major roads are in poor or mediocre condition. Twenty-six percent of Arkansas’ major locally and state-maintained roads are in poor condition and 26 percent are in mediocre condition.⁸ Seventeen percent of Arkansas’ major roads are in fair condition and the remaining 31 percent are in good condition.⁹

Twenty-six percent of Arkansas’ major locally and state-maintained urban roads and highways have pavements rated in poor condition and 32 percent are in mediocre condition.¹⁰ Eighteen percent of Arkansas’ major urban roads are rated in fair condition and the remaining 25 percent are rated in good condition.¹¹

Twenty-six percent of Arkansas’ major locally and state-maintained rural roads and highways have pavements rated in poor condition and 25 percent are in mediocre condition.¹² Sixteen percent of Arkansas’ major rural roads are rated in fair condition and the remaining 33 percent are rated in good condition.¹³ The chart below details pavement conditions on major urban roads in the state’s largest urban areas and statewide.¹⁴

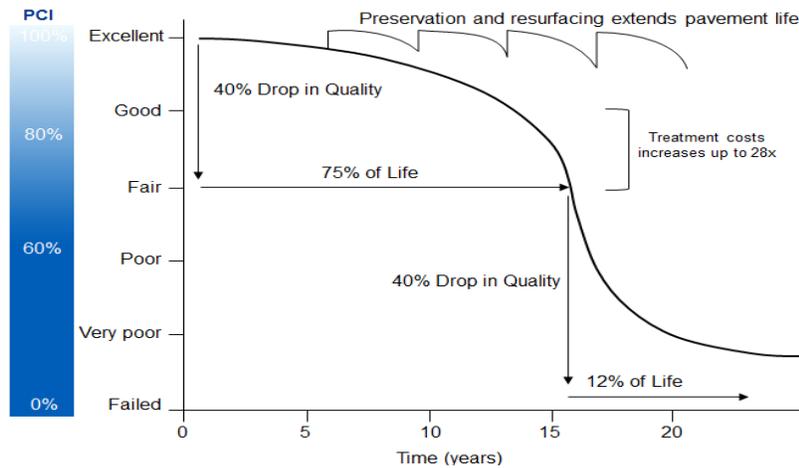
Chart 1. Pavement conditions on major roads in Arkansas’ largest urban areas and statewide.

Location	Poor	Mediocre	Fair	Good
Fayetteville-Springdale-Rogers	10%	22%	26%	42%
Fort Smith	23%	34%	13%	30%
Hot Springs	34%	29%	18%	19%
Jonesboro	4%	20%	39%	37%
Little Rock-North Little Rock-Conway	24%	33%	17%	25%
Pine Bluff	14%	37%	16%	33%
West Memphis	17%	22%	19%	43%
Arkansas Statewide	26%	26%	17%	31%

Source: TRIP analysis of Federal Highway Administration data.

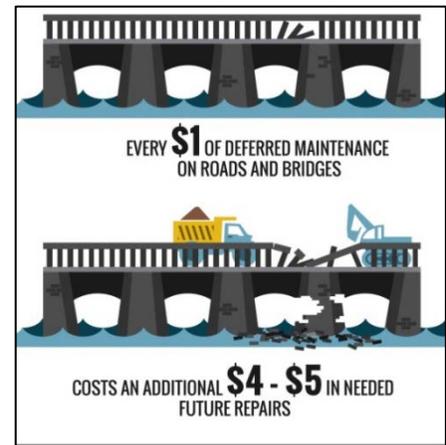
Pavement failure is caused by a combination of traffic, moisture and climate. Moisture often works its way into road surfaces and the materials that form the road’s foundation. Road surfaces at intersections are more prone to deterioration because the slow-moving or standing loads occurring at these 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.¹⁵ 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.¹⁶



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 Arkansas motorists as a result of deteriorated road conditions is \$1.6 billion annually, an average of \$642 per driver statewide.¹⁷ The chart below shows 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
Fayetteville-Springdale-Rogers	\$389
Fort Smith	\$623
Hot Springs	\$760
Jonesboro	\$322
Little Rock-North Little Rock-Conway	\$644
Pine Bluff	\$517
West Memphis	\$473

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.¹⁸ 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 driving cost estimates](#) and then using the HDM model to estimate the additional VOC paid by drivers as a result of substandard roads.¹⁹ 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 ARKANSAS

Arkansas' 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.

Five percent (626 of 12,902) of Arkansas' locally and state-maintained bridges are rated in poor/structurally deficient condition.²⁰ This includes all bridges that are 20 feet or more in length. A bridge is deemed poor/structurally deficient if there is significant deterioration of the bridge deck, supports or other major components.

Bridges that are poor/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.

Forty-four percent of Arkansas’ locally and state-maintained bridges are rated in fair condition.²¹ 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 51 percent of the state’s bridges are rated in good condition.²²

The chart below details the condition of bridges statewide and in Arkansas’ largest urban areas.

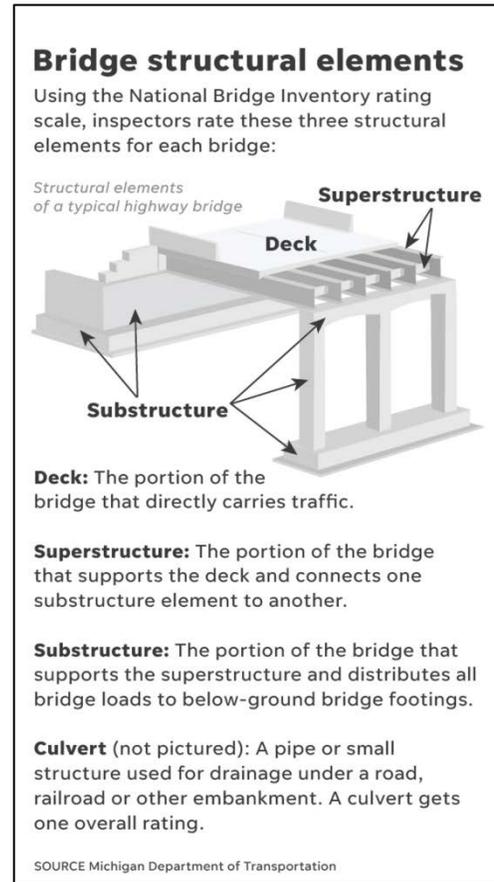


Chart 4. Bridge conditions statewide and in Arkansas’ largest urban areas.

Location	Poor/Structurally Deficient Bridges		Fair Bridges		Good Bridges		Total Bridges
	Number	Share	Number	Share	Number	Share	
Fayetteville-Springdale-Rogers	44	5%	474	56%	324	38%	842
Fort Smith	46	4%	635	49%	577	44%	1,305
Hot Springs	20	4%	348	67%	154	30%	522
Jonesboro	22	5%	84	19%	330	76%	436
Little Rock-North Little Rock-Conway	20	2%	424	46%	487	52%	931
Pine Bluff	14	4%	82	24%	246	72%	342
West Memphis	5	2%	81	35%	147	63%	233
Arkansas Statewide	626	5%	5,678	44%	6,598	51%	12,902

Source: TRIP analysis of Federal Highway Administration National Bridge Inventory (2019).

The service life of bridges can be extended by performing routine maintenance such as resurfacing decks, painting surfaces, ensuring 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 ARKANSAS

A total of 2,551 people were killed in Arkansas traffic crashes from 2014 to 2018, an average of 510 fatalities per year.²³

Chart 5. Traffic Fatalities in Arkansas 2014 – 2018.

Year	Fatalities
2014	466
2015	531
2016	545
2017	493
2018	516
AVERAGE	510
TOTAL	2,551

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.

Arkansas’ overall traffic fatality rate of 1.41 fatalities per 100 million vehicle miles of travel in 2018 is the 12th highest rate in the U.S. and higher than the national average of 1.13.²⁴ The fatality rate on Arkansas’ non-interstate rural roads is nearly double that on all other roads in the state (2.04 fatalities per 100 million vehicle miles of travel vs 1.04).²⁵

The chart below shows the number of people killed in traffic crashes in the state’s largest urban areas between 2016 and 2018, and the cost of traffic crashes per driver.

Chart 6. Average fatalities between 2014 and 2018 and crash cost per driver.

Location	Average Fatalities 2016-18	Safety Costs per Driver
Fayetteville-Springdale-Rogers	45	\$198
Fort Smith	45	\$361
Hot Springs	33	\$146
Jonesboro	18	\$366
Little Rock-North Little Rock-Conway	72	\$318
Pine Bluff	12	\$422
West Memphis	15	\$698

Source: TRIP analysis.

Traffic crashes in Arkansas imposed a total of \$2.5 billion in economic costs in 2018.²⁶ TRIP estimates that roadway features were likely a contributing factor in approximately one-third of all fatal traffic crashes, resulting in \$839 million in economic costs in Arkansas in 2018.²⁷ 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 Arkansas’ 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 ARKANSAS

Increasing levels of traffic congestion cause significant delays in Arkansas, 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 business 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 Arkansas is approximately \$780 million 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 to Congestion	Annual Cost Per Driver
Fayetteville-Springdale-Rogers	33	\$677
Fort Smith	24	\$484
Hot Springs	20	\$392
Jonesboro	25	\$486
Little Rock-North Little Rock-Conway	40	\$711
Pine Bluff	11	\$230
West Memphis	48	\$651

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 Arkansas. 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, \$226 billion in goods are shipped to and from sites in Arkansas, mostly by truck.²⁹ Seventy-five percent of the goods shipped annually to and from sites in Arkansas are carried by truck and another ten percent are carried by courier services or multiple-mode deliveries, which include trucking.³⁰ The value of freight shipped to and from sites in Arkansas, in inflation-adjusted dollars, is expected to increase 90 percent by 2045 and by 75 percent for goods shipped by trucks.³¹

The ability of the nation's freight transportation system to efficiently and safely accommodate the growing demand for freight movement could be hampered by inadequate transportation capacity, a lack of adequate safety features on some transportation facilities, institutional barriers to enhancing the nation's freight facilities, a lack of adequate funding for needed improvements to the freight network and a shortage of drivers.

The need to improve the U.S. freight network is occurring at a time when the nation's freight delivery system is being transformed by advances in vehicle autonomy, manufacturing, warehousing and supply chain automation, increasing e-commerce, and the growing logistic networks being developed by Amazon and other retail organizations in response to the demand for a faster and more responsive delivery and logistics cycle.

Investments in transportation improvements in Arkansas 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 in Arkansas play a critical role in the state's economy, supporting the equivalent of 35,286 full-time jobs across all sectors of the state economy, earning these workers approximately \$964 million annually.³² These jobs include 17,578 full-time jobs directly involved in transportation infrastructure construction and related activities and 17,708 full-time jobs as a result of spending by employees and companies in the transportation design and construction industry.³³

Transportation construction in Arkansas annually contributes an estimated \$176 million in state and local income, corporate and unemployment insurance taxes and the federal payroll tax. Approximately 593,000 full-time jobs in Arkansas 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 \$20.5 billion in wages and contribute an estimated \$3.7 billion in state and local income, corporate and unemployment insurance taxes and the federal payroll tax.³⁴

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. Interstate access has a significant impact on the competitiveness of a region's economy. Not surprisingly, highway accessibility was ranked the number one site selection factor in a 2020 [survey](#) of corporate executives by Area Development Magazine.³⁵

TRANSPORTATION FUNDING IN ARKANSAS

Investment in Arkansas' 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.

Most federal funds for highway and transit improvements in Arkansas 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 (additional revenue is generated by fees on the sale of large trucks, a highway use tax levied on vehicles in excess of 55,000 pounds and a tax on the sale of large truck tires).

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.

In addition to federal motor fuel tax revenues, the FAST Act is funded by \$70 billion in U.S. general funds, which relies on offsets from several unrelated federal programs including the Strategic Petroleum Reserve, the Federal Reserve and U.S. Customs.

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 on September 30, 2020.³⁶ The FAST-Act is a major source of funding for road, highway and bridge repairs in Arkansas. Throughout the five years of the FAST-Act – fiscal years 2016 to 2020 – the program will provide \$2.7 billion to Arkansas for road repairs and improvements, an average of \$548 million per year.³⁷ From 2014 to 2018, the federal government provided \$1.23 for road improvements in Arkansas for every \$1.00 state motorists paid in federal highway user fees, including the federal state motor fuel tax.³⁸

Federal funds are a critical source of highway investment in Arkansas and represent a significant share of funds used by the state for major road, highway and bridge repairs and improvements. From 2014 to 2018, federal funds provided for highway improvements were the equivalent of 53 percent of the amount of Arkansas state capital outlays on road, highway and bridge projects, including construction, engineering and right-of-way acquisition.³⁹

Arkansas federal-aid eligible roads, bridges and highways include the most critical routes in the state, including the Interstate Highway System, major highways and important rural and urban routes. Federal-aid eligible roadways in Arkansas account for 24 percent of state lane-miles and carry 86 percent of all vehicle miles of travel in the state.⁴⁰ Sixty-six percent of Arkansas' bridges by count, and 88 percent of bridges measured by deck area are eligible for Federal aid.⁴¹

According to the [Status of the Nation's Highways, Bridges, and Transit, 23rd Edition](#), submitted to Congress by the United States Department of Transportation (USDOT) in 2019, the nation faces a \$786 billion backlog in needed repairs and improvements to the nation's roads, highways and bridges.⁴² This backlog includes \$435 billion for highway rehabilitation; \$125 billion for bridge rehabilitation; \$120 billion for system expansion and \$106 billion for system enhancement.⁴³ 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 29 percent to \$136 billion annually to improve the conditions of roads, highways and bridges, relieve traffic congestion and improve traffic safety.⁴⁴

CONCLUSION

As Arkansas continues 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.

Arkansas 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 Arkansas’ roads, highways, bridges and transit systems will not be able to proceed without a substantial boost in local, state or federal transportation funding. If Arkansas 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.

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ENDNOTES

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- ¹ Bridge condition data and safety data for each urban area includes the counties noted: Fayetteville-Springdale-Rogers: Benton and Washington Counties; Fort Smith: Crawford, Le Flore (OK), Sebastian and Sequoyah (OK) Counties; Hot Springs: Garland and Hot Spring Counties; Jonesboro: Craighead County; Little Rock-North Little Rock- Conway: Pulaski and Faulkner Counties; Pine Bluff: Jefferson County; West Memphis: Crittenden County.
- ² U.S. Census Bureau (2019).
- ³ Highway Statistics (2018). Federal Highway Administration. DL-1C.
- ⁴ TRIP analysis of Bureau of Economic Analysis data.
- ⁵ Ibid.
- ⁶ U.S. Department of Transportation - Federal Highway Administration: Highway Statistics 2000 and 2018 and analysis of Federal Highway Administration Traffic Volume Trends (2018)
https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm
- ⁷ Ibid
- ⁸ Federal Highway Administration (2019). Pavement condition data is for 2018.
- ⁹ Ibid.
- ¹⁰ Ibid.
- ¹¹ Ibid.
- ¹² Ibid.
- ¹³ Ibid.
- ¹⁴ Ibid.
- ¹⁵ Selecting a Preventative Maintenance Treatment for Flexible Pavements. R. Hicks, J. Moulthrop. Transportation Research Board. 1999. Figure 1.
- ¹⁶ [Pavement Maintenance](#), by David P. Orr, PE Senior Engineer, Cornell Local Roads Program, March 2006.
- ¹⁷ TRIP calculation.
- ¹⁸ Highway Development and Management: Volume Seven. Modeling Road User and Environmental Effects in HDM-4. Bennett, C. and Greenwood, I. 2000.
- ¹⁹ Your Driving Costs. American Automobile Association. 2019.
- ²⁰ Federal Highway Administration National Bridge Inventory. 2019.
- ²¹ Ibid.
- ²² Ibid
- ²³ Federal Highway Administration National Highway Traffic Safety Administration, 2014-2018.
- ²⁴ TRIP analysis of National Highway Traffic Safety Administration and Federal Highway Administration data (2019). Data is for 2018.
- ²⁵ TRIP analysis of National Highway Traffic Safety Administration and Federal Highway Administration data (2018).
- 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 the Federal Highway Administration’s Freight Analysis Framework. (2018).
<https://faf.ornl.gov/fafweb/>
- 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.

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- ³⁵ Area Development Magazine (2020). 34th Annual Survey of Corporate Executives: Availability of Skilled Labor New Top Priority. <https://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2020/34th-annual-corporate-survey-16th-annual-consultants-survey.shtml>
- ³⁶ 2015 “Fixing America’s Surface Transportation Act.” (2015) American Road and Transportation Builders Association. <http://www.artba.org/newsline/wp-content/uploads/2015/12/ANALYSIS-FINAL.pdf>
- ³⁷ U.S. Department of Transportation (2020). Estimated FY 2016-2020 Apportionments Under the Fixing America’s Surface Transportation Act. <https://www.fhwa.dot.gov/fastact/funding.cfm>
- ³⁸ TRIP analysis of Federal Highway Administration data (2020). Chart FE 221B in Highway Statistics 2018. <https://www.fhwa.dot.gov/policyinformation/statistics/2018/>
- ³⁹ TRIP analysis of Federal Highway Administration data (2020). Charts SF-1, SF-2 in Highway Statistics 2018. <https://www.fhwa.dot.gov/policyinformation/statistics/2018/>
- ⁴⁰ TRIP analysis of Federal Highway Administration data (2020). Charts VM-2, VM-3, HM-48, HM-60 in Highway Statistics 2018. <https://www.fhwa.dot.gov/policyinformation/statistics/2018/>
- ⁴¹ TRIP analysis of Federal Highway Administration National Bridge Inventory data (2020). <https://www.fhwa.dot.gov/bridge/fc.cfm> All bridges excluding bridges classified as local or rural collector are eligible for federal aid.
- ⁴² 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>
- ⁴³ Ibid.
- ⁴⁴ Ibid.