MODERNIZING KANSAS’ TRANSPORTATION SYSTEM:

Progress and Challenges in Providing Safe, Efficient and Well-Maintained Roads, Highways and Bridges

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TRIP
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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

Kansas’ extensive system of roads, highways and bridges provides the state’s residents, visitors and businesses with a high level of mobility. This transportation system forms the backbone that supports the state’s economy and quality of life for all Kansans.

As Kansas looks to retain its businesses, maintain its level of economic competitiveness and achieve further economic growth, the state 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, safe and reliable mobility for motorists and businesses. Making needed improvements to Kansas’ roads, highways and bridges could also provide a 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.

With the state’s population continuing to grow, Kansas must continue to improve its system of roads, highways and bridges to foster economic growth and keep and attract businesses to the state. In addition to economic growth, transportation improvements are needed to ensure safe, reliable mobility. Meeting Kansas’ need to further modernize and maintain its system of roads, highways and bridges will require significant local, state and federal funding.

Kansas has undertaken a sustained commitment to upgrade the condition and efficiency of its roads, highways and bridges and modernize its transportation network. Kansas’ Transportation Works for Kansas (T-WORKS) program, which was authorized by the state legislature in 2010, provides $7.8 billion in transportation funding over 10 years. T-WORKS projects are funded primarily through a 4/10 cent sales tax. By improving Kansas’ network of roads, bridges and transit, the program also creates jobs, preserves and improves the state’s infrastructure assets, and promotes economic development across the state.

To date, the T-WORKS program has allowed for the completion of over 1,000 transportation projects, the improvement of nearly 8,000 miles of roads, and the repair or replacement of nearly 600 bridges. These improvements have benefited the entire state, as the T-WORKS legislation mandates that at least $8 million is invested in each county.

As the T-WORKS program moves into its middle years, the state has made significant progress in improving road and bridge conditions, expanding transit and multi-modal options, and improving the state’s rail and aviation systems. While the T-WORKS program has allowed for significant modernization and improvements to Kansas’ transportation system, further progress in improving the state’s transportation system is needed to address traffic safety, road and bridge conditions, including those that are locally maintained, and further modernization to support economic growth. Yet the state’s ability to address these challenges could be jeopardized by uncertainty in the future levels of federal transportation funding. In order to fulfill its promise, the T-WORKS program must be coupled with a strong, sustainable source of federal transportation funds.

Achieving the state’s goals for a modern, well-maintained and safe transportation system will require staying the course with Kansas’ current transportation program and proceeding with further transportation improvements well through the next decade. The level of local, state and federal funding will be critical in allowing for the continued improvement and modernization of Kansas’ transportation system.
Population and economic growth have placed increased demands on Kansas’ major roads and highways, leading to mounting wear and tear on the transportation system.

- Kansas’ population reached approximately 2.9 million in 2012, a 16 percent increase since 1990, when the state’s population was approximately 2.5 million. Kansas has approximately 2,018,029 million licensed drivers.

- Vehicle miles traveled (VMT) in Kansas increased 34 percent from 1990 to 2012 – from 22.8 billion VMT in 1990 to 30.6 billion VMT in 2012.

- By 2030, vehicle travel in Kansas is projected to increase by another 15 percent.

- From 1990 to 2012, Kansas’ gross domestic product (GDP), a measure of the state’s economic output, increased by 54 percent, when adjusted for inflation.

Largely through funding provided by the T-WORKS program, Kansas has been able to improve approximately 8,000 miles of state-maintained roads and highways since 2010.

- The T-WORKS program allocates approximately $6 billion to highway preservation, modernization and expansion projects throughout Kansas over a 10 year period.

- Funding provided by the T-WORKS program allowed Kansas to improve 7,714 miles of state-maintained roadway since 2010. Through the second half of the 10-year program, the state plans to make improvements to an additional 5,000 miles of roadways.

A large percentage of urban roads and highways in Kansas are in poor condition. The urban roads in the state which are in poor condition are largely maintained by local governments.

- Twenty-nine percent of Kansas’ major locally and state-maintained urban roads and highways have pavements in poor condition, while an additional 46 percent of the state’s major roads are rated in mediocre or fair condition and the remaining 25 percent are rated in good condition.

- Ninety-five percent of the urban roads and highways in Kansas that are in poor condition are maintained by local governments.

- Roads rated in poor condition may show signs of deterioration, including rutting, cracks and potholes. In some cases, poor roads can be resurfaced, but often are too deteriorated and must be reconstructed.

Seventeen percent of locally and state-maintained bridges in Kansas show significant deterioration or do not meet current design standards often because of narrow lanes, inadequate clearances or poor alignment. This includes all bridges that are 20 feet or more in length.
- Ten percent of Kansas’ bridges are structurally deficient. A bridge is structurally deficient if there is significant deterioration of the bridge deck, supports or other major components. Structurally deficient bridges are often posted for lower weight or closed to traffic, restricting or redirecting large vehicles, including commercial trucks and emergency services vehicles.

- Ninety-seven percent of the structurally deficient bridges in Kansas are maintained by local governments.

- The Kansas Department of Transportation (KDOT) in 2014 set aside $10 million to reduce the number of deficient locally-maintained bridges. The additional funding will allow improvements to 77 locally-maintained bridges.

- Seven percent of Kansas’ bridges are functionally obsolete. Bridges that are functionally obsolete no longer meet current highway design standards, often because of narrow lanes, inadequate clearances or poor alignment.

- Funding provided by the T-WORKS program has allowed the state to repair or replace 559 bridges since 2010.

**Kansas’ traffic fatality rate is significantly higher than the national average. Improving safety features on the state’s roads and highways would likely result in a decrease in traffic fatalities and serious crashes. It is estimated that roadway features are likely a contributing factor in approximately one-third of all fatal and serious traffic crashes.**

- Between 2008 and 2012, 1,993 people were killed in traffic crashes in Kansas, an average of 399 fatalities per year.

- Kansas’ overall traffic fatality rate of 1.32 fatalities per 100 million vehicle miles of travel in 2012 is significantly higher than the national average of 1.13.

- The traffic fatality rate on Kansas’ non-Interstate rural roads in 2012 was approximately three times higher than on all other roads and highways in the state – 2.26 fatalities per 100 million vehicle miles of travel compared to 0.74.

- Several factors are associated with vehicle crashes that result in fatalities, including 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.

- Where appropriate, highway improvements can reduce traffic fatalities and crashes while improving traffic flow to help relieve congestion. Such improvements include removing or shielding obstacles; adding or improving medians; improved lighting; adding rumble strips, wider lanes, wider and paved shoulders; upgrading roads from two lanes to four lanes; and better road markings and traffic signals.
• Investments in rural traffic safety have been found to result in significant reductions in serious traffic crashes. A 2012 report by the Texas Transportation Institute (TTI) found that improvements completed recently by the Texas Department of Transportation that widened lanes, improved shoulders and made other safety improvements on 1,159 miles of rural state roadways resulted in 133 fewer fatalities on these roads in the first three years after the improvements were completed (as compared to the three years prior). TTI estimates that the improvements on these roads are likely to save 880 lives over the next 20 years.

• KDOT maintains a Highway Safety Improvement Program which provides funding for safety improvements including lighting, pavement marking, signage, rail crossings, intersections and rural roads, including the addition of shoulders, widening lanes and improving sight distance.

The efficiency of Kansas’ transportation system, particularly its highways, is critical to the state’s economy. Businesses are increasingly reliant on an efficient and reliable transportation system to move products and services. A key component in business efficiency and success is the level and ease of access to customers, markets, materials and workers.

• Annually, $123.5 billion in goods are shipped to sites in Kansas and another $149.2 billion in goods are shipped from sites in Kansas, mostly by truck.

• Seventy-one percent of the goods shipped annually from sites in Kansas are carried by trucks and another 10 percent are carried by courier services or multiple mode deliveries, which include trucking.

• Businesses have responded to improved communications and greater competition by moving from a push-style distribution system, which relies on low-cost movement of bulk commodities and large-scale warehousing, to a pull-style distribution system, which relies on smaller, more strategic and time-sensitive movement of goods.

• 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 number one site selection factor in a 2011 survey of corporate executives by Area Development Magazine.

• A 2007 analysis by the Federal Highway Administration found that every $1 billion invested in highway construction would support approximately 27,800 jobs, including approximately 9,500 in the construction sector, approximately 4,300 jobs in industries supporting the construction sector, and approximately 14,000 other jobs induced in non-construction related sectors of the economy.
• The Federal Highway Administration estimates that each dollar spent on road, highway and bridge improvements results in an average benefit of $5.20 in the form of reduced vehicle maintenance costs, reduced delays, reduced fuel consumption, improved safety, reduced road and bridge maintenance costs and reduced emissions as a result of improved traffic flow.

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

• Signed into law in July 2012, MAP-21 (Moving Ahead for Progress in the 21st Century Act), has improved several procedures that in the past had delayed projects, MAP-21 does not address long-term funding challenges facing the federal surface transportation program.

• Congress recently approved the Highway and Transportation Funding Act of 2014, an eight-month extension of the federal surface transportation program, on which states rely for road, highway, bridge and transit funding. The program, initially set to expire on September 30, 2014, will now run through May 31, 2015. In addition to extending the current authorization of the highway and public transportation programs, the legislation will transfer nearly $11 billion into the Highway Trust Fund (HTF) to preserve existing levels of highway and public transportation investment through the end of May 2015.

• If Congress decides to provide additional revenues into the federal Highway Trust Fund in tandem with authorizing a new federal surface transportation program, a number of technically feasible revenue options have been identified by the American Association of State Highway and Transportation Officials.

• From 2008 to 2012, the federal government provided $1.22 for road improvements in Kansas for every dollar the state paid in federal motor fuel fees.

• Many needed projects throughout the state will require significant federal funding in order to proceed. These projects include the reconstruction of mainline US-69 in Kansas City, the completion of the Gateway Project to modernize Kansas’ portion of the highway network in the Kansas City area, the reconstruction and modernization of a portion of I-70 in Topeka, the construction of a bypass around the northwest portion of Wichita connecting US-54 to I-235/K-96, the reconstruction of the I-135/I-235/K-254/K-96 interchange in Wichita, and the construction of highway bypasses around Pratt, Kingman and Pittsburg. A full list of projects threatened by a lack of federal funding can be found in the report’s Appendix.

Sources of information for this report include the Federal Highway Administration (FHWA), the Kansas Department of Transportation (KDOT), the Bureau of Transportation Statistics (BTS), the U. S. Census Bureau, the Congressional Budget Office (CBO), the Texas Transportation Institute (TTI), the American Association of State Highway and Transportation Officials (AASHTO) and the National Highway Traffic Safety Administration (NHTSA). All data used in the report are the most recent available.
Introduction

Kansas’ roads, highways and bridges form vital transportation links for the state’s residents, visitors and businesses, providing daily access to homes, jobs, schools, shopping, natural resources and recreation. To foster a high quality of life and to support a high level of economic competitiveness in the Sunflower State, it is critical that Kansas’ roads, highways and bridges continue to be improved and modernized.

Through funding provided by the Transportation Works for Kansas (T-WORKS) program, Kansas has undertaken a sustained commitment to upgrade the condition and efficiency of its roads, highways and bridges and modernize its transportation network. The resulting improvements in Kansas’ network of roads, bridges and transit will allow for the creation of jobs, the preservation of the state’s transportation network, and the promotion of economic growth. As the T-WORKS program moves into its middle years, the state has made significant progress in improving road and bridge conditions, expanding transit and multi-modal options, and improving the rail and aviation systems.

While the T-WORKS program has allowed for significant modernization and improvements to Kansas’ transportation system, the progress that has been made could be jeopardized by uncertainty in the future levels of federal transportation funding. In order to fulfill its promise, the T-WORKS program must be coupled with a strong, sustainable source of federal transportation funds to allow many critical projects in the state to move forward.

Kansas has made significant progress in recent years, but challenges remain in improving the safety and condition of the state’s roads, while continuing to modernize the transportation system in order to promote further economic growth and a high quality of life.
As Kansas faces the challenge of making further progress in preserving, modernizing and improving its roads, highways and bridges, the future level of federal, state and local highway funding will be a critical factor in whether the state’s residents and visitors gain the benefit of a well-maintained, efficient and safe transportation system.

This report examines the condition, use and safety of Kansas’ roads, highways and bridges; recent improvements in the state’s transportation system; the status of road, highway and bridge funding in the state; and the status of future plans for further state transportation improvements. Sources of information for this report include the Federal Highway Administration (FHWA), the Kansas Department of Transportation (KDOT), the U. S. Census Bureau, the Texas Transportation Institute (TTI), the Congressional Budget Office (CBO), the Bureau of Transportation Statistics (BTS), the American Association of State Highway and Transportation Officials (AASHTO) and the National Highway Traffic Safety Administration (NHTSA).

**Population, Travel and Economic Trends**

Kansas residents and businesses require a high level of personal and commercial mobility. Population and economic growth results in an increased demand for mobility and an increase in vehicle miles of travel. To foster a high quality of life and continued economic development in Kansas, it will be critical that the state provide a safe and modern transportation system that can accommodate future growth in population, tourism, recreation and vehicle travel.

Kansas’ population grew to approximately 2.9 million in 2012, a 16 percent increase since 1990, when the state’s population was approximately 2.5 million.¹ There are 2,018,029
million licensed drivers in Kansas.\textsuperscript{2} From 1990 to 2012, Kansas' gross domestic product, a measure of the state’s economic output, increased by 54 percent, when adjusted for inflation.\textsuperscript{3}

Population and economic growth in Kansas have resulted in an increase in vehicle travel in the state. From 1990 to 2012, annual vehicle miles of travel in Kansas increased by 34 percent, from 22.8 billion miles traveled annually to 30.6 billion miles traveled annually.\textsuperscript{4} Based on population and other lifestyle trends, TRIP estimates that travel on Kansas’ roads and highways will increase by another 15 percent by 2030.\textsuperscript{5}

\textbf{Road Conditions}

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

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 even 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.\textsuperscript{6} 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.
Twenty-nine percent of Kansas’ major locally and state-maintained urban roads and highways have pavements in poor condition, while an additional 46 percent of the state’s major urban roads are rated in mediocre or fair condition and the remaining 25 percent are rated in good condition.\textsuperscript{7}

Of the urban roads in the state that are in poor condition, the vast majority are maintained by local governments. Ninety-five percent of the urban roads and highways in Kansas that are in poor condition are maintained by local governments.\textsuperscript{8}

Roads rated in poor condition may show signs of deterioration, including rutting, cracks and potholes. In some cases, poor roads can be resurfaced, but often are too deteriorated and must be reconstructed.

The T-WORKS program allocates approximately $6 billion to highway preservation, modernization and expansion projects throughout Kansas over a 10 year period.\textsuperscript{9} Funding provided by the T-WORKS program allowed Kansas to improve 7,714 miles of state-maintained roadway since 2010.\textsuperscript{10} Through the second half of the 10-year program, the state plans to make improvements to an additional 5,000 miles of roadways.\textsuperscript{11}

**Bridge Conditions**

A total of 17 percent of locally and state-maintained bridges in Kansas show significant deterioration or do not meet current design standards often because of narrow lanes, inadequate clearances or poor alignment. This includes all bridges that are 20 feet or more in length.
Ten percent of Kansas’ bridges are structurally deficient.\textsuperscript{12} A bridge is structurally deficient if there is significant deterioration of the bridge deck, supports or other major components. Structurally deficient bridges are often posted for lower weight or closed to traffic, restricting or redirecting large vehicles, including commercial trucks and emergency services vehicles.

The vast majority of bridges in Kansas that are structurally deficient are maintained by local governments. Ninety-seven percent of the structurally deficient bridges in Kansas are maintained by local governments.\textsuperscript{13}

Seven percent of Kansas’ bridges are functionally obsolete.\textsuperscript{14} Bridges that are functionally obsolete no longer meet current highway design standards, often because of narrow lanes, inadequate clearances or poor alignment.

Funding provided by the T-WORKS program has allowed the state to repair or replace 559 bridges since 2010.\textsuperscript{15}

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.

\textbf{Traffic Safety}

A total of 1,993 people were killed in motor vehicle crashes in Kansas from 2008 through 2012, an average of 399 fatalities per year.\textsuperscript{16}

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
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<tr>
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<tr>
<td>2009</td>
<td>386</td>
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<tr>
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<tr>
<td>2012</td>
<td>405</td>
</tr>
<tr>
<td>Total</td>
<td>1,993</td>
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</tbody>
</table>

Source: National Highway Traffic Safety Administration

Kansas’ overall traffic fatality rate of 1.32 fatalities per 100 million vehicle miles of travel in 2012 is significantly higher than the national average of 1.13 fatalities per 100 million vehicle miles of travel.¹⁷

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.

Improving safety on Kansas’ 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 such as adding turn lanes, removing or shielding obstacles, adding or improving medians, widening lanes, widening and paving shoulders, improving intersection layout, and providing better road markings and upgrading or installing traffic signals where appropriate.
Roads with poor geometry, with insufficient clear distances, without turn lanes, inadequate shoulders for the posted speed limits, or poorly laid out intersections or interchanges, pose greater risks to motorists, pedestrians and bicyclists.

Investments in rural traffic safety have been found to result in significant reductions in serious traffic crashes. A 2012 report by the Texas Transportation Institute (TTI) found that improvements completed recently by the Texas Department of Transportation that widened lanes, improved shoulders and made other safety improvements on 1,159 miles of rural state roadways resulted in 133 fewer fatalities on these roads in the first three years after the improvements were completed (as compared to the three years prior). TTI estimates that the improvements on these roads are likely to save 880 lives over the next 20 years.\(^\text{18}\)

KDOT maintains a Highway Safety Improvement Program which provides funding for safety improvements including lighting, pavement marking, signage, rail crossings, intersections and rural roads, including the addition of shoulders, widening lanes and improving sight distance.

**Importance of Transportation to Economic Growth**

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. Highway accessibility was ranked the number one site selection factor in a 2011 survey of corporate executives by Area Development Magazine.\(^\text{19}\)
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 Kansas, particularly to the state’s tourism, agriculture, energy and manufacturing sectors. 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, $123.5 billion in goods are shipped to sites in Kansas and another $149.2 billion in goods are shipped from sites in Kansas, mostly by trucks. Seventy-one percent of the goods shipped annually from sites in Kansas are carried by trucks and another 10 percent are carried by multiple-mode deliveries, including trucks.

The cost of road and bridge improvements are more than offset by the reduction of user costs associated with driving on rough roads, the improvement in business productivity, the reduction in delays and the improvement in traffic safety. The Federal Highway Administration estimates that each dollar spent on road, highway and bridge improvements results in an average benefit of $5.20 in the form of reduced vehicle maintenance costs, reduced delays, reduced fuel consumption, improved safety, reduced road and bridge maintenance costs and reduced emissions as a result of improved traffic flow.
Transportation Funding

Investment in Kansas’ roads, highways and bridges is funded by local, state and federal governments. The federal government provides funding for the state’s transportation system largely as part MAP-21 (Moving Ahead for Progress in the 21st Century Act), the current two-year federal surface transportation program, which expires on May 31, 2015.

The federal government is a critical source of funding for Kansas’ roads, highways, bridges and transit systems and provides a significant return to Kansas in road and bridge funding based on the revenue generated in the state by the federal motor fuel tax. From 2008 to 2012, the federal government provided $1.22 for road improvements in Kansas for every dollar the state paid in federal motor fuel fees.23

Federal funds for highway and transit improvements in Kansas are provided through the federal Highway Trust Fund, which raises revenue through federal 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.24

Signed into law in July 2012, MAP-21 has improved several procedures that in the past had delayed projects. However, MAP-21 does not address long-term funding challenges facing the federal surface transportation program. Congress recently approved the Highway and Transportation Funding Act of 2014, an eight-month extension of the federal surface transportation program, on which states rely for road, highway, bridge and transit funding. The program, initially set to expire on September 30, 2014, will now run through May 31, 2015. In
addition to extending the current authorization of the highway and public transportation programs, the legislation will transfer nearly $11 billion into the Highway Trust Fund to preserve existing levels of highway and public transportation investment through the end of May 2015.

If Congress decides to provide additional revenues into the federal Highway Trust Fund in tandem with authorizing a new federal surface transportation program, a number of technically feasible revenue options have been identified by the American Association of State Highway and Transportation Officials.

Many needed projects throughout the state will require significant federal funding in order to proceed. These projects include the reconstruction of mainline US-69 in Kansas City, the completion of the Gateway Project to modernize Kansas’ portion of the highway network in the Kansas City area, the reconstruction and modernization of a portion of I-70 in Topeka, the construction of a bypass around the northwest portion of Wichita connecting US-54 to I-235/K-96, the reconstruction of the I-135/I-235/K-254/K-96 interchange in Wichita, and the construction of highway bypasses around Pratt, Kingman and Pittsburg. A full list of projects can be found in the report’s Appendix.

Increasing investment in the state’s roads, highways and bridges could boost Kansas’ economy by creating jobs. A 2007 analysis by the Federal Highway Administration found that every $1 billion invested in highway construction would support approximately 27,800 jobs, including approximately 9,500 in the construction sector, approximately 4,300 jobs in industries supporting the construction sector, and approximately 14,000 other jobs induced in non-construction related sectors of the economy.
Conclusion

Through the T-WORKS program, Kansas has committed itself to modernizing its network of roads, highways and bridges, which are the backbone of the state’s economy and play a critical role in the daily lives of its residents and visitors.

Today Kansans are benefiting from this commitment to an improved transportation system in the form of roads, highways and bridges that are in better condition, more reliable and safer. The state has a transportation program in place to ensure future progress in the condition, reliability and safety of its most heavily-traveled roads, highways and bridges. But, with the level of future federal transportation expenditures uncertain and the need for the state’s leaders to maintain their current level of commitment to supporting a strong state transportation program into the future, it will be critical that Kansans remain steadfast in their support for adequate funding to provide a safe, well-maintained and efficient transportation system in the Sunflower State.

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Endnotes

3 TRIP analysis of Bureau of Economic Analysis data.
5 TRIP calculation based on U.S. Census and Federal Highway Administration data.
6 Selecting a Preventative Maintenance Treatment for Flexible Pavements. R. Hicks, J. Moulthrop. Transportation Research Board. 1999. Figure 1.
8 Kansas Department of Transportation (2014). Data provided to TRIP.
9 Kansas Department of Transportation, T-WORKS website: http://kdotapp.ksdot.org/TWorks/
10 Ibid.
11 Ibid.
12 Kansas Department of Transportation (2014) response to TRIP survey.
13 Ibid.
14 Ibid.
15 Kansas Department of Transportation, T-WORKS website: http://kdotapp.ksdot.org/TWorks/
21 Ibid.
22 FHWA estimate based on its analysis of 2006 data. For more information on FHWA’s cost-benefit analysis of highway investment, see the 2008 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance.
25 KDOT response to TRIP survey.