

MODERNIZING OHIO'S TRANSPORTATION SYSTEM:

*Progress and Challenges in Providing a Safe, Efficient and
Well-Maintained Transportation System*

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Executive Summary

Ohio's extensive system of roads, highways, bridges and public transit 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 Ohioans.

As Ohio 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 Ohio's transportation system 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.

Located within a day's drive of 60 percent of the population of the United States and Canada, Ohio must continue to improve its transportation system to foster economic growth and keep and attract businesses. In addition to economic growth, transportation improvements are needed to ensure safe, reliable mobility. Meeting Ohio's need to further modernize and maintain its transportation system of roads, highways, bridges and public transit will require significant local, state and federal funding.

In the face of stagnant transportation revenue growth, Ohio has been able to increase its construction investment in the state's roads, highways and bridges from \$1.6 billion in 2011 to \$2.4 billion in 2014 and 2015. This was achieved by reducing operating costs through staff attrition and streamlining, modernizing budgeting practices, allowing greater flexibility to modify projects, improving the efficiency of project design and delivery, and the 2013 approval of the use of Ohio Turnpike bonds on transportation projects.

But the recently adopted state transportation budget reduces annual state highway and bridge construction spending to \$1.9 billion in 2016 (contingent on the sale of Turnpike toll-backed bonds) and to \$1.7 billion in 2017.

Increases in state transportation investment have kept Ohio's state-maintained roads, highways and bridges largely in acceptable or good condition and have allowed numerous, needed road, highway and bridge projects to proceed. Despite this, the state faces an \$11.6 billion backlog in needed but unfunded road, highway and bridge improvements.

Ohio also faces the following transportation challenges: improving the condition of locally-maintained roads, highways and bridges; maintaining the condition of state-maintained roads, highways and bridges; improving roadway safety; relieving traffic congestion; and, providing additional highway access to support economic growth. The state's ability to address these challenges could be jeopardized by uncertainty in the future levels of federal transportation funding.

Achieving Ohio's goals for a modern, well-maintained and safe transportation system will require significant transportation investment at the local, state and federal level.

Despite the lack of recent increases in state or federal transportation revenues, the Ohio Department of Transportation (ODOT) has been able to boost annual spending on roads, highways and bridges over the last four years through operational improvements and the use of bonds backed by the Ohio Turnpike. This increased investment has allowed Ohio to keep state-maintained roads, highways and bridges largely in acceptable condition. However, it has not been adequate to close a shortfall in needed transportation improvements in the state.

- ODOT has been able to increase its construction investment in the state's roads, highways and bridges from \$1.6 billion in 2011 to \$2.4 billion in 2014 and 2015.
- The recently adopted state transportation budget reduces state highway and bridge construction spending to \$1.9 billion in 2016 (contingent on the sale of Turnpike toll-backed bonds) and to \$1.7 billion in 2017.
- ODOT has made available an additional \$182.5 million annually for roadway improvements through increased staff efficiency, the adoption of zero based budgeting standards which reduced the need to carry significant cash balances, by allowing greater flexibility to modify projects, and by improving the efficiency of project design and delivery.
- In 2013 the Ohio General Assembly approved the use of Ohio Turnpike bond proceeds with the provision that 90 percent of the revenue be used on transportation projects within 75 miles of the Turnpike.
- ODOT has an \$11.6 billion backlog in needed road, highway and bridge improvements, which are currently unfunded.
- Ohio faces a significant challenge in improving the condition of locally-maintained roads, highways and bridges; maintaining the condition of state-maintained roads, highways and bridges; improving roadway safety, particularly on rural roads; relieving traffic congestion; and, providing additional highway access needed to support economic growth.

Population, economic and travel growth have placed increased wear and tear and traffic congestion on Ohio's major roads and highways.

- Ohio's population reached approximately 11.5 million in 2013, a six percent increase since 1990, when the state's population was approximately 10.8 million. Ohio has approximately eight million licensed drivers.
- Vehicle miles traveled (VMT) in Ohio increased 30 percent from 1990 to 2013 – from 87 billion VMT in 1990 to 113 billion VMT in 2013.
- From 1990 to 2013, Ohio's gross domestic product (GDP), a measure of the state's economic output, increased by 39 percent, when adjusted for inflation.

Nearly one-quarter of Ohio’s locally and state-maintained urban roads are in poor condition, while four percent of the state’s rural roads are in poor condition.

- Twenty-four percent of Ohio’s major locally and state-maintained urban roads and highways have pavements in poor condition, while an additional 41 percent are rated in mediocre or fair condition. The remaining 35 percent are rated in good condition.
- Four percent of Ohio’s major locally and state-maintained rural roads and highways have pavements in poor condition, while an additional 37 percent are rated in mediocre or fair condition and the remaining 59 percent are rated in good condition.
- Pavements on state-maintained roads are generally in better condition than pavements on locally maintained roads. Pavements on 98 percent of state-maintained roads and highways, including both urban and rural, are in acceptable condition.
- 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 need more complex and expensive reconstruction.
- The chart below details the percentage of major locally and state-maintained roads in poor, mediocre, fair and good condition in the state’s major urban areas:

Location	Poor	Mediocre	Fair	Good
Cincinnati	20%	23%	21%	36%
Cleveland-Akron	52%	25%	12%	11%
Columbus	28%	21%	29%	22%
Dayton	22%	23%	14%	41%
Toledo	42%	14%	14%	31%

Approximately a quarter of locally and state-maintained bridges in Ohio 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.

- Eight percent of Ohio’s locally or state-maintained 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.
- Sixteen percent of Ohio’s 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.

- Bridges on state-maintained road and highways are generally in better condition than bridges on locally maintained roads and bridges. Ninety-nine percent of state-maintained bridges in Ohio are in acceptable condition.
- The chart below details the percentage of bridges in the state’s major urban areas rated either structurally deficient or functionally obsolete:

Location	Pct. Structurally Deficient	Pct. Functionally Obsolete
Cincinnati	4%	24%
Cleveland-Akron	9%	36%
Columbus	4%	22%
Dayton	5%	16%
Toledo	11%	18%

- ODOT has committed \$130 million from 2014 to 2017 for repairs to deficient bridges.

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 2009 and 2013, 5,229 people were killed in traffic crashes in Ohio, an average of 1,046 fatalities per year.
- Ohio’s overall traffic fatality rate of 0.88 fatalities per 100 million vehicle miles of travel in 2013 is lower than the national average of 1.09.
- The traffic fatality rate on Ohio’s non-Interstate rural roads in 2013 is more than three times higher than on all other roads and highways in the state – 1.91 fatalities per 100 million vehicle miles of travel compared to 0.58.
- 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.
- The chart below details the average number of traffic fatalities in each of Ohio's largest urban areas from 2011 to 2013.

Location	Avg. Fatalities
Cincinnati	135
Cleveland-Akron	113
Columbus	82
Dayton	60
Toledo	51

Traffic congestion causes significant delays in Ohio, particularly in 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 consumers.

- Traffic congestion adds significant costs to consumers, transportation companies, manufacturers, distributors and wholesalers and can reduce the attractiveness of a location to companies looking to expand or locate a new facility. Congestion costs can also increase overall operating costs for trucking and shipping companies, leading to revenue losses, lower pay for drivers and employees, and higher consumer costs.
- The chart below details the average annual number of hours lost to congestion by each motorist in Ohio's largest urban areas.

Location	Hours Lost
Cincinnati	37 Hours
Cleveland-Akron	29 Hours
Columbus	40 Hours
Dayton	24 Hours
Toledo	26 Hours

The efficiency of Ohio's transportation system, particularly its highways, is critical to the state's economy. Businesses rely 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, \$493 billion in goods are shipped to sites in Ohio and another \$563 billion in goods are shipped from sites in Ohio, mostly by truck.
- Seventy-eight percent of the goods shipped annually from sites in Ohio are carried by trucks and another 14 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 two site selection factor behind only the availability of skilled labor in a 2013 survey of corporate executives by [Area Development Magazine](#).
- 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 Ohio's roads, highways and bridges and provides a significant return to Ohio 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.

- States are heavily reliant on the federal government to provide transportation funding. The current federal transportation legislation was initially set to expire on September 30, 2014 but Congress passed an eight-month extension through May 31, 2015. Prior to the expiration of the eight-month extension, Congress passed another two-month extension, the Highway and Transportation Funding Act of 2015, which is set to expire on July 31, 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 2009 to 2013, the federal government provided \$1.19 for road improvements in Ohio for every dollar the state paid in federal motor fuel and other highway user fees.
- Since 2008, the federal government has augmented Highway Trust Fund revenues with \$63 billion in general fund revenues, which has resulted in states getting back an average of \$1.31 for road improvements for every \$1 contributed in federal motor fuel fees and other highway user fees from 2009 to 2013.
- Many needed projects throughout the state will require significant federal funding in order to proceed by 2020. These projects include reconstruction of portions of Interstates 70 and 71 in the Columbus area, the reconfiguration of portions of Interstate 270 in the Columbus area, the widening of a portion of Interstate 80 in the Youngstown area, the widening and reconstruction of a portion of Interstate 77 in Cuyahoga County, the reconstruction of the Main Street/Broadway Street interchange with Interstate 76 in Akron, the construction of the Opportunity Corridor highway in the Cleveland area, the reconstruction and widening of portions of Interstate 75 in the Cincinnati area and the replacement of the Brent Spence Bridge over the Ohio River in Cincinnati. 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 Ohio Department of Transportation (ODOT), 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

Ohio's roads, highways, bridges and public transit systems 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 Buckeye State, it is critical that Ohio's transportation system is well-maintained and adequately funded.

Through additional state transportation funding made available by operational changes and the issuance of bonds based on Ohio Turnpike revenue, Ohio has been able to increase spending to upgrade the condition and efficiency of its roads, highways and bridges and modernize its transportation network. It will be critical that the state continue to make improvements and address the state's backlog in needed road and bridge improvements. In order to improve safety, relieve traffic congestion and improve the condition of locally maintained roads and bridges, ensuring residents and visitors a well-maintained, efficient and safe transportation system, the state will require significant local, state and federal transportation funding.

While Ohio has been able to increase its investment in its roads, highways and bridges, the state's ability to make further improvements and close its \$11.6 billion shortfall in needed but unfunded transportation improvements could be jeopardized by uncertainty in the future levels of federal transportation funding. In order to make further strides in improving the state's transportation system, Ohio's efforts must be coupled with a strong, sustainable source of federal transportation funds to allow many critical projects in the state to move forward.

This report examines the condition, use and safety of Ohio's roads, highways and bridges; recent investment levels 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 transportation improvements. Sources of information for this report include the Federal Highway Administration (FHWA), the Ohio Department of Transportation (ODOT), 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

Ohio 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 Ohio, it will be critical that the state provide a safe and modern transportation system that can accommodate future growth in population, economic development, recreation and vehicle travel.

Ohio's population grew to approximately 11.5 million in 2013, a six percent increase since 1990, when the state's population was approximately 10.8 million.¹ There are approximately eight million licensed drivers in Ohio.² From 1990 to 2013, Ohio's gross domestic product, a measure of the state's economic output, increased by 39 percent, when adjusted for inflation.³

Population and economic growth in Ohio have resulted in an increase in vehicle travel in the state. From 1990 to 2013, annual vehicle miles of travel in Ohio increased by 30 percent, from 87 billion miles traveled annually to 113 billion miles traveled annually.⁴

Road Conditions

The life cycle of Ohio's 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.⁵ 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-four percent of Ohio's major locally and state-maintained urban roads and highways have pavements in poor condition, while an additional 41 percent are rated in mediocre or fair condition and the remaining 35 percent are rated in good condition.⁶

Four percent of Ohio’s major locally and state-maintained rural roads and highways have pavements in poor condition, while an additional 37 percent of the state’s major roads are rated in mediocre or fair condition and the remaining 59 percent are rated in good condition.⁷

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 chart below details the percentage of major locally and state-maintained roads in poor, mediocre, fair and good condition in each of the state’s major urban areas.

Chart 1. Pavement conditions of major roads in Ohio’s largest urban areas.

Location	Poor	Mediocre	Fair	Good
Cincinnati	20%	23%	21%	36%
Cleveland-Akron	52%	25%	12%	11%
Columbus	28%	21%	29%	22%
Dayton	22%	23%	14%	41%
Toledo	42%	14%	14%	31%

Source: TRIP analysis of Federal Highway Administration data.

The pavement data in this report for all locally and state-maintained arterial roads and highways is provided by the Federal Highway Administration, based on data submitted annually by ODOT on the condition of major state and locally maintained roads and highways in the state.

Pavements on state-maintained roads are generally in better condition than pavements on locally maintained roads. Pavements on 98 percent of state-maintained roads and highways are in acceptable condition.⁸

Bridge Conditions

Nearly a quarter of locally and state-maintained bridges in Ohio 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.

Eight percent of Ohio's bridges are structurally deficient.⁹ 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 vehicles.

Sixteen percent of Ohio's bridges are functionally obsolete.¹⁰ Bridges that are functionally obsolete no longer meet current highway design standards, often because of narrow lanes, inadequate clearances or poor alignment.

ODOT has committed \$130 million from 2014 to 2017 for repairs to deficient bridges in the state.¹¹

The chart below details the percentage of locally and state-maintained bridges in each of the state's major urban areas that are either structurally deficient or functionally obsolete.

Chart 2. Share of locally and State-maintained bridges in Ohio's largest urban areas that are structurally deficient or functionally obsolete.

Location	Pct. Structurally Deficient	Pct. Functionally Obsolete
Cincinnati	4%	24%
Cleveland-Akron	9%	36%
Columbus	4%	22%
Dayton	5%	16%
Toledo	11%	18%

Source: TRIP analysis of Federal Highway Administration data.

State-maintained bridges generally are in better condition than locally maintained bridges. Ninety-nine percent of state-maintained bridges are in acceptable condition.¹²

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

A total of 5,229 people were killed in motor vehicle crashes in Ohio from 2009 through 2013, an average of 1,046 fatalities per year.¹³

Chart 3. Ohio Traffic fatalities 2009 – 2013.

<i>Year</i>	<i>Fatalities</i>
2009	1,021
2010	1,080
2011	1,016
2012	1,123
2013	989
Total	5,229

Source: National Highway Traffic Safety Administration

Ohio's overall traffic fatality rate of 0.88 fatalities per 100 million vehicle miles of travel in 2013 is lower than the national average of 1.09 fatalities per 100 million vehicle miles of travel.¹⁴

The fatality rate on Ohio's non-Interstate rural roads was 1.91 fatalities per 100 million vehicle miles of travel in 2013, more than three times higher than the fatality rate of 0.58 on all other roads and highways in the state.¹⁵

The chart below details the average number of fatalities in each of Ohio's largest urban areas from 2011 to 2013.

Chart 4. Average annual traffic fatalities from 2011-2013.

Location	Avg. Fatalities
Cincinnati	135
Cleveland-Akron	113
Columbus	82
Dayton	60
Toledo	51

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.

Improving safety on Ohio'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 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.¹⁶

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. In fact, highway accessibility was ranked the number two site selection factor behind only the availability of skilled labor in a 2013 survey of corporate executives by [Area Development Magazine](#).¹⁷

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 Ohio, 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, \$493 billion in goods are shipped to sites in Ohio and another \$563 billion in goods are shipped from sites in Ohio, mostly by trucks.¹⁸ Seventy-eight percent of the goods shipped annually from sites in Ohio are carried by trucks and another 14 percent are carried by multiple-mode deliveries, including trucks.¹⁹

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.²⁰

Traffic Congestion in Ohio

Traffic congestion causes significant delays in Ohio, particularly in larger urban areas, choking commuting and commerce. Traffic congestion robs commuters of time and money and imposes increased costs on businesses, shippers and manufacturers. These costs are often passed along to the consumer.

The chart below details the average annual number of hours lost to congestion by each motorist in Ohio's largest urban areas.

Chart 5. Average annual hours lost per motorist.

Location	Hours Lost
Cincinnati	37 Hours
Cleveland-Akron	29 Hours
Columbus	40 Hours
Dayton	24 Hours
Toledo	26 Hours

Source: Texas Transportation Institute Urban Mobility Report, 2012.

Increasing levels of traffic congestion add significant costs to consumers, transportation companies, manufacturers, distributors and wholesalers. The increased levels of congestion can reduce the attractiveness of a location to a company to consider expansion or even to locate a new facility. And, the costs associated with congestion can increase overall operating expenses for trucking and shipping companies, leading to revenue losses, lower pay for employees, and higher consumer costs.

Transportation Funding

Investment in Ohio's roads, highways, bridges and public transit systems is funded by local, state and federal governments.

Despite the lack of any recent increases in state or federal transportation revenues, the Ohio Department of Transportation (ODOT) has been able to boost annual spending on roads, highways and bridges from \$1.6 billion in 2011 to \$2.4 billion in 2014 through operational improvements and the use of Ohio Turnpike-backed bonds.²¹ This increased investment has allowed Ohio to keep state-maintained roads, highways and bridges largely in acceptable condition but has not been adequate to close a shortfall in needed transportation improvements in the state.

The recently adopted state transportation budget reduces state highway and bridge construction spending to \$1.9 billion in 2016 (contingent on the sale of Turnpike toll-backed bonds) and to \$1.7 billion in 2017.²²

ODOT has been able to make available an additional \$182.5 million annually for roadway improvements through increased staff efficiency, the adoption of zero based budgeting standards that reduced the need to carry significant cash balances, by allowing greater flexibility to modify projects, and by improving the efficiency of project design and delivery.²³

Additional resources to fund needed road, highway and bridge repairs in Ohio were provided in 2013 by the Ohio General Assembly. The state legislature approved the use of Ohio Turnpike bond proceeds, with the provision that 90 percent of the revenue be used on transportation projects within 75 miles of the turnpike.²⁴

Despite the increased investment in the state's roads, highways and bridges, ODOT has an \$11.6 billion backlog in needed, but unfunded, road, highway and bridge improvements.²⁵

The federal government is another critical source of funding for Ohio's roads, highways and bridges, providing funds for the state's transportation system largely as part MAP-21 (Moving Ahead for Progress in the 21st Century Act), the current federal surface transportation program, which expires on July 31, 2015 after a series of short term extensions.

The federal government provides a significant return to Ohio in road, highway and bridge funding based on the revenue generated in the state by the federal motor fuel tax. From 2009 to 2013, the federal government provided \$1.19 for road improvements in Ohio for every dollar the state paid in federal motor fuel fees.²⁶

Federal funds for highway and transit improvements in Ohio 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 \$63 billion in general funds and an additional \$2 billion from a related trust fund into the federal Highway Trust Fund.²⁷

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. The current federal transportation legislation was initially set to expire on September 30, 2014 but congress passed an eight- month extension through May 31, 2015. Prior to the expiration of the eight month extension, Congress passed another two-month extension that is set to expire on July 31, 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 by 2020. These projects include the following: the reconstruction of portions of Interstates 70 and 71 in the Columbus area, the reconfiguration of portions of Interstate 270 in the Columbus area, the widening of a portion of Interstate 80 in the Youngstown area, the widening and reconstruction of a portion of Interstate 77 in Cuyahoga County, the reconstruction of the Main Street/Broadway Street interchange with Interstate 76 in Akron, the construction of the Opportunity Corridor highway in the Cleveland area, the reconstruction and widening of portions of Interstate 75 in the Cincinnati area, and the replacement of the Brent Spence bridge over the Ohio River in Cincinnati.²⁸

A full list of projects which would need significant federal funding to proceed by 2020 can be found in the report's [Appendix](#).

Conclusion

By increasing investment in the state's roads, highways and bridges, Ohio has committed itself to modernizing its transportation system, which is the backbone of the state's economy and plays a critical role in the daily lives of its residents and visitors.

Today Ohioans are benefiting from this commitment to improved roads, highways and bridges. Yet the state continues to face significant challenges in maintaining state-maintained roads and bridges, improving the condition of locally maintained roads and bridges, improving

traffic safety, relieving traffic congestion and making transportation improvements to support economic growth and a high quality of life in Ohio.

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 Ohioans remain steadfast in their support for adequate federal, state and local funding to provide a safe, well-maintained and efficient transportation system in the Buckeye State.

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Endnotes

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- ² Highway Statistics (2012). Federal Highway Administration. <http://www.fhwa.dot.gov/policyinformation/statistics/2011/dl1c.cfm>
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- ⁶ Federal Highway Administration (2015). Pavement condition data is for 2013. Data is for all arterials.
- ⁷ Ibid. Data is for all arterials and collectors.
- ⁸ 2014-2015 Business Plan (2013). Ohio Department of Transportation, P. 6.
- ⁹ Federal Highway Administration, National Bridge Inventory (2014).
- ¹⁰ Ibid.
- ¹¹ Ohio Department of Transportation.
- ¹² 2014-2015 Business Plan (2013). Ohio Department of Transportation, P. 6.
- ¹³ TRIP analysis of National Highway Traffic Safety Administration data (2014).
- ¹⁴ TRIP analysis of National Highway Traffic Safety Administration and Federal Highway Administration data (2014).
- ¹⁵ Ibid.
- ¹⁶ Adding Highway Shoulders, Width, Reduce Crash Numbers and Save Lives (August 9, 2012). Texas Department of Transportation. <http://tti.tamu.edu/2012/08/09/tti-study-analyzes-roadway-improvements/>
- ¹⁷ Area Development Magazine (2014). 28th Annual Survey of Corporate Executives: Availability of Skilled Labor New Top Priority. . <http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2014/28th-Corporate-Executive-RE-survey-results-6574981.shtml?Page=2>
- ¹⁸ Bureau of Transportation Statistics (2010), U.S. Department of Transportation. 2007 Commodity Flow Survey, State Summaries. http://www.bts.gov/publications/commodity_flow_survey/2007/states/
- ¹⁹ Ibid.
- ²⁰ 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.
- ²¹ Results Over Resources (2013). Ohio Department of Transportation, P. 4.
- ²² Ohio Department of Transportation.
- ²³ Ibid. P. 12.
- ²⁴ 2014-2015 Business Plan (2013). Ohio Department of Transportation, P. 16.
- ²⁵ Ibid. P. 13.
- ²⁶ TRIP analysis of Federal Highway Administration data. 2008 to 2012 Highway Statistics sf-1.
- ²⁷ "Surface Transportation Reauthorization and the Solvency of the Highway Trust Fund," presentation by Jim Tyson, American Association of State Highway and Transportation Officials (2014).
- ²⁸ ODOT response to TRIP survey.