

Top 50 Surface Transportation Projects to Stimulate Michigan's Economic Recovery

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TRIP
1726 M Street, NW, Suite 401
Washington, DC 20036
Phone: (202) 466-6706
Fax: (202) 785-4722
www.tripnet.org

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 highway transportation

Executive Summary

Michigan's transportation system has played a significant role in the state's development, providing mobility and access for residents, visitors, businesses and industry. The state's roads, highways and transit systems are the backbone of a transportation system that made Michigan a 20th Century global leader in the automotive and manufacturing sectors as well as in agriculture, education and healthcare. Michigan's transportation system also provided for a high quality of life and made the state a desirable place to live and visit. Today, Michigan must transform its economy to meet the demands of the 21st Century and overcome its severe economic challenges. The condition and quality of its transportation system will play a critical role in the state's ability to recover from a decade of economic decline.

To achieve sustainable economic recovery, Michigan must proceed with numerous projects to improve key highways, bridges and transit routes. Enhancing critical segments of Michigan's surface transportation system will boost the state's economy in the short-term by creating jobs in construction and related fields. In the long term these improvements will lead to economic competitiveness by reducing travel delays and transportation costs, improving access and mobility, and stimulating sustained job growth, improving the quality of life for all Michiganders.

In this report, TRIP examines the recent transportation and economic trends in Michigan and provides information on the surface transportation projects in the state that are most needed to support economic growth. Sources of data include the Michigan Department of Transportation (MDOT), the Southeast Michigan Council of Governments (SEMCOG), the Grand Valley Metro Council (GVMC), the Tri-County Regional Planning Commission (TCRPC), the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA), the U.S. Bureau of Transportation Statistics (BTS), and the U.S. Census Bureau. All data used in the report is the latest available.

TRIP has identified the state's 50 surface transportation projects that are most needed to support Michigan's economic recovery. These projects are located throughout the state and include improvements to roads, highways, rail, transit systems and border crossings.

- The most needed surface transportation projects in Michigan include road, bridge, rail and transit projects and international border crossings. The needed projects are geographically diverse, including numerous urban projects in the Detroit, Lansing and Grand Rapids areas and projects as far north as the Upper Peninsula.
- TRIP ranked each transportation project based on a rating system that considered short-term economic benefits, including job creation; the level of improvement in the condition of the transportation facility, including safety improvements; the amount of improvement in access and mobility; and, the long-term improvement provided in regional or state economic performance and competitiveness.

- Michigan's 10 most needed surface transportation projects for economic recovery are as follows. A full list of the 50 needed projects for economic recovery is included in Appendix A of the report.
1. **Detroit River International Crossing (DRIC)** This new international crossing would span from I-75 in Wayne County to Canada 401 in Windsor, Ontario. It would provide freeway to freeway border connection and ease congestion while making significant improvements to the efficiency, reliability, redundancy and cost-competitiveness of international traffic in the Detroit-Windsor trade corridor. The construction of a new border crossing in the Detroit-Windsor trade corridor is expected to create 10,000 construction jobs and preserve or attract up to 25,000 jobs in Michigan and up to 97,000 jobs in the U.S.
 2. **Widening I-94 from six to eight lanes in Wayne County.** Spanning from I-96 to Connor Avenue, this project would widen a 6.7 mile section of I-94, and includes new bridges and service drives. This congested section of I-94 connects three U.S.-Canada border crossings and five major freeways and provides access to downtown Detroit, the Detroit Cultural Center, Wayne State University, Detroit City Airport and Detroit Metro Airport. The I-94 corridor project is estimated to create 15,200 jobs during the multi-year construction phases while easing congestion and enhancing the region's economic competitiveness.
 3. **Improvements to I-75 in Oakland County from 8 Mile Road to M-59.** This 18 mile corridor would be widened to include HOV lanes during peak hours, new ramp configuration and geometric changes to the I-75/I-696 Interchange, the 12 Mile Road and 14 Mile Road interchanges, improvements to the M-102 ramps, a new drainage system to accommodate the lane addition, Intelligent Transportation Systems (ITS) improvements for effective traffic management, bridge replacements and the reconstruction of the existing three lanes of freeway. The project will provide better access to residential, commercial and recreational destinations and serve as an important gateway to Michigan's manufacturing sector. The I-75 corridor project is estimated to create 7,200 jobs during the multi-year construction phases.
 4. **Construction of the Woodward Avenue light rail line in the Detroit area.** The Woodward Avenue light rail route would provide additional travel options for residents, students, and workers traveling along the corridor and connect to other proposed rapid transit lines. The project would generate temporary construction jobs and some long-term operational jobs, and would generate economic stimulus in the form of transit oriented development.
 5. **Widening I-94 in Jackson County and interchange replacement.** This project would widen eight miles of I-94 from four-to six-lanes between M-60 and Sargent Road in Jackson and replace several functionally obsolete interchanges. It would ease congestion and enhance mobility in the corridor from Detroit to

Chicago and is estimated to create 5,150 jobs during the multi-year construction phases.

6. **Reconstruction and widening of I-196 in the Grand Rapids area.** This section of I-196 from US-131 easterly to I-96 would be widened from four to six lanes, adding capacity, correcting existing geometric deficiencies and improving deteriorating pavement conditions. The major commuting route from suburban Grand Rapids into the city would be enhanced while creating 4,630 jobs during the multi-year construction phase.
7. **Detroit Intermodal Freight Terminal.** This project includes the construction of an intermodal freight terminal to serve the four Class I railroads. It also includes the improvement of rail lines and local roads would allow for more efficient transfer of freight from rail to truck, which would attract business and industry freight shipping originating from and destined for Michigan; and would improve the economic viability of the surrounding community. Upon project completion, the DIFT project is projected to generate 4,500 permanent new jobs in Michigan with 1,500 of those jobs in the terminal area, and 2,300 jobs in the city of Detroit.
8. **Blue Water Bridge Plaza at U.S./Canadian border.** Located at the fourth-busiest crossing between the U.S. and Canada, the plaza project would provide additional space for inspection booths, offices, docks to inspect and unload cargo, new security measures, and parking for cars and trucks needing inspection. It would also improve the connecting roadways, reduce congestion and reduce delay for vehicles crossing the bridge. The Blue Water Bridge Plaza project is estimated to create 6,350 jobs during the multi-year construction phases.
9. **Mackinac Bridge Deck Replacement.** The project would include the design and construction of a new deck system on the suspended portion of the Mackinac Bridge and would allow this economic pathway to remain open for commerce to pass freely between the two peninsulas of Michigan. During the construction phase, an estimated 1,630 jobs would be created.
10. **US-23 widening and bridge replacement in Ann Arbor.** The project would widen US-23 from four to six lanes and replace several obsolete and deteriorated interchanges and structures over the freeway. This project is estimated to create 4,400 jobs during the construction phase and would provides access to Ann Arbor from the north and provide north south access from the state line to I-75 north of metro Detroit. This corridor is also on the US Strategic Highway Network (STRAHNET) and serves as a national defense route.

Surface transportation projects that improve the efficiency, condition or safety of a highway or transit route provide significant economic benefits by reducing transportation delays and costs associated with a deficient transportation system. The benefits of transportation improvements include the following.

- Improved business competitiveness because of reduced production and distribution costs as a result of increased travel speeds and fewer mobility barriers.
- Improvements in household welfare as a result of better access to higher-paying jobs, a wider selection of competitively priced consumer goods, additional housing and healthcare options, and improved mobility for residents without access to private vehicles.
- Gains in local, regional and state economies as a result of improved regional economic competitiveness, which stimulates population and job growth.
- Increased leisure/tourism and business travel as a result of enhanced conditions and reliability of a region's transportation system.
- A reduction in economic losses from vehicle crashes, traffic congestion and vehicle maintenance costs associated with driving on deficient roads.
- The creation of both short-term and long-term jobs.
- Transportation projects that expand roadway or transit capacity produce significant economic benefits by reducing congestion and improving access, thus speeding the flow of people and goods.
- Transportation projects that maintain and preserve existing transportation infrastructure also provide significant economic benefits by improving travel speeds, capacity, load-carry abilities and safety, and reducing operating costs for people and businesses. Such projects also extend the service life of a road, bridge or transit vehicle or facility, which saves money by either postponing or eliminating the need for more expensive future repairs.

While the nation entered a significant economic downturn in 2008, Michigan has suffered financial distress for nearly a decade and has the nation's highest unemployment rate. Michigan faces a significant challenge in achieving sustained economic growth, which will likely require a transformation of the state's economic structure.

- From 2000 to 2008, Michigan's gross domestic product, when adjusted for inflation, decreased by nine percent. The national average increase in GDP during this time frame was 52 percent.

- Michigan's unemployment rate increased from 3.4 percent in January 2000 to 14.1 percent in February 2010, the highest unemployment rate in the nation. During this period, the number of jobs in Michigan dropped 16 percent, from approximately 4.97 million to 4.16 million, and the number of unemployed increased nearly fourfold, from 175,000 to 684,000.
- The loss of employment in Michigan has contributed to a loss of population in the state as residents seek employment elsewhere. From 2000 to 2007, Michigan's population increased slightly, from 9,950,000 to 10,050,000. However, the state's population decreased to 10,000,000 in 2008 and 9,970,000 in 2009.
- A recent analysis of U.S. Census Bureau and Internal Revenue Service data found that Michigan is getting less populated, less educated and poorer because those leaving Michigan tend to be the people that the state can least afford to lose – the young and college-educated.
- As a result of the state's economic woes, the rate of vehicle travel growth in Michigan has slowed significantly since 2000. From 1990 to 2000, vehicle miles of travel in Michigan increased by 21 percent, but from 2000 to 2008 vehicle travel in the state increased by just two percent.
- As Michigan begins to rebuild its faltering economy, it is likely that the state will need to adopt an economic model that is less reliant on manufacturing jobs and more reliant on higher-paying, knowledge-based employment, such as tourism, education, healthcare, entertainment, engineering and information technology.
- While nearly half of Michigan's jobs were manufacturing-related in the early 1960s, today approximately 18 percent of the state's employment is in the manufacturing sector, which is still a share approximately 50 percent higher than the national average.

Michigan's economy is served by an extensive surface transportation system that has significant deficiencies. The state's roadways carry the majority of freight shipped in the state.

- Michigan is served by a system of 121,595 miles of roads and 10,921 bridges, maintained by local, state and federal governments, which carry 100 billion vehicle miles of travel annually. The state's surface transportation system also includes 79 public transit agencies, including 20 urban public transit agencies.
- More than a third of the state's major roads are deficient, with 18 percent of Michigan's major roads rated in poor condition in 2008 and another 17 percent rated in mediocre condition.
- In 2008, fourteen percent of the state's bridges were rated structurally deficient and another 12 percent were rated as functionally obsolete.

- Many of Michigan's largest urban areas experience significant traffic congestion on key routes, with 39 percent of the state's urban highways rated as congested in 2007.
- Every year, \$389 billion in goods are shipped annually from sites in Michigan and another \$407 billion in goods are shipped annually to sites in Michigan, mostly by truck.
- Seventy-eight percent of the goods shipped annually from sites in Michigan are carried by trucks and another seven percent are carried by courier services, which use trucks for part of the deliveries. Similarly, 83 percent of the goods shipped to sites in Michigan are carried by trucks and another nine percent are carried by courier services.

Sources of data for this report include the Michigan Department of Transportation (MDOT), the Southeast Michigan Council of Governments (SEMCOG), the Grand Valley Metro Council (GVMC), the Tri-County Regional Planning Commission (TCRPC), the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA), the U.S. Bureau of Transportation Statistics (BTS), and the U.S. Census Bureau. All data used in the report is the latest available.

Introduction

Michigan's transportation system has served as the backbone of the state's economy, providing mobility to the state's residents, visitors and businesses. Michigan's surface transportation system has allowed the state's residents to travel to work and school and to access recreation, healthcare, social and commercial activities. The system has also provided the state's industries and businesses with access to customers, suppliers and employees.

But Michigan's transportation system has significant deficiencies that could prevent the state from being economically viable and competitive in the 21st Century. In order to boost the state's faltering economy and enhance long-term economic competitiveness, Michigan must improve road and bridge conditions, expand highway and transit capacity, enhance traffic safety and provide improved access throughout the state and across its borders.

Over the last decade, Michigan has experienced a significant economic downturn, which has led to the highest unemployment rate in the nation, a decrease in economic activity and a slight decline in population. As part of implementing a statewide plan to reverse job losses and promote strong economic growth in the future, Michigan must make significant improvements to its surface transportation system. The completion of needed transportation improvements is a key component of any region's ability to induce sustained economic growth.

Because it impacts the time it takes to transport people and goods, as well as the cost of travel, the reliability and physical condition of a region's surface transportation system has a significant impact on long-term economic growth, productivity and

competitiveness. Numerous studies have concluded that investment in expanding the capacity or improving the condition of existing transportation facilities is critical to a region's ability to stimulate short-term and long-term economic growth.

This report identifies the 50 surface transportation projects in Michigan that are most needed to spur economic growth in the state and assist in Michigan's economic recovery. The report includes information on these projects, such as location, the current level of travel or ridership, the estimated cost of the project, the current status of the project and an explanation of the importance of the project and how it would improve Michigan's economy.

The Impact of Transportation Projects on Economic Recovery

When a state or region's surface transportation system lacks adequate capacity, is deteriorated or lacks some desirable safety features, it impedes economic performance by slowing commerce and commuting, increasing transport costs and burdening an economy with future transportation investment needs.

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.

To prepare this report, TRIP analyzed data provided by the Michigan Department of Transportation (MDOT) and the state's three largest regional governments: the Southeast Michigan Council of Governments (SEMCOG) in the Detroit area, the Grand

Valley Metro Council (GVMC) in the Grand Rapids area and the Tri-County Regional Planning Commission (TCRPC) in the Lansing area. TRIP asked each agency to identify the surface transportation projects that would provide the greatest contribution to Michigan's economic recovery. The projects could include the reconstruction, expansion, or improvement of existing transportation facilities or the construction of new transportation facilities.

Each transportation agency provided information on projects including route, location, current level of use, the type of improvement needed, the estimated cost of the improvement, a description of the importance of the facility to regional mobility and an explanation of the economic benefits the project would provide.

To rank the projects submitted by each agency, TRIP assigned each transportation segment or facility an overall score, based on a scale that provided points for the following categories:

- ✓ Short-term economic benefits, including job creation.
- ✓ Improvement in the condition of transportation facility, including safety improvements.
- ✓ Improved access and mobility.
- ✓ Long-term improvement in regional or state economic performance and competitiveness.

Michigan's 50 Surface Transportation Projects

Most Needed for Economic Recovery

TRIP has identified the state's 50 surface transportation projects that are most needed to support Michigan's economic recovery. These projects are located throughout the state and include improvements to roads, highways, rail, transit systems and border crossings. The needed projects are geographically diverse, including numerous urban projects in the Detroit, Lansing and Grand Rapids areas and projects as far north as the Upper Peninsula.

TRIP ranked each transportation project based on a rating system that considered short-term economic benefits, including job creation; the level of improvement in the condition of the transportation facility, including safety improvements; the amount of improvement in access and mobility; and, the long-term improvement provided in regional or state economic performance and competitiveness.

Michigan's 25 most needed surface transportation projects for economic recovery are as follows. A full list of the 50 needed projects for economic recovery is included in Appendix A of the report.

1. Detroit – Windsor International Crossing. This international bridge crossing would span from I-75 in Wayne County to Canada 401 in Windsor, Ontario. It would provide freeway to freeway border connection and ease congestion while making significant improvements to the efficiency, reliability and cost-competitiveness of international traffic in the Detroit-Windsor trade corridor. The construction of a new border crossing in the Detroit-Windsor trade corridor is expected to preserve or attract up to 25,000 jobs in Michigan and up to 97,000 jobs in the U.S.

2. Widening I-94 from six to eight lanes in Wayne County. Spanning from I-96 to Connor Avenue, this project would widen a 6.7 mile section of I-94, to include new bridges and service drives. This congested section of I-94 interconnects three U.S.-Canada border crossings and five major freeways and provides access to downtown Detroit, the Detroit Cultural Center, Wayne State University, Detroit City Airport and

Detroit Metro Airport. The I-94 corridor project is estimated to create 15,200 jobs during the multi-year construction phases while easing congestion and enhancing the region's economic competitiveness.

3. Improvements to I-75 in Oakland County from 8 Mile Road to M-59. This 18 mile corridor would see the addition of HOV lanes during peak hours, a new ramp configuration and geometric changes to the I-75/I-696 Interchange, the 12 Mile Road and 14 Mile Road interchanges, improvements to the M-102 ramps, a new drainage system to accommodate the lane addition, Intelligent Transportation Systems (ITS) improvements for effective traffic management, bridge replacements and the reconstruction of the existing three lanes of freeway. The project will provide better access to residential, commercial and recreational destinations and serve as an important gateway to Michigan's manufacturing sector. The I-75 corridor project is estimated to create 7,200 jobs during the multi-year construction phases.

4. Construction of the Woodward Avenue light rail line in the Detroit area. The Woodward Avenue light rail route would provide additional travel option for residents, students, and workers traveling along the corridor and connect to other proposed rapid transit lines. The project would generate temporary construction jobs and some long-term operational jobs, and would generate economic stimulus in the form of transit oriented development.

5. Widening I-94 in Jackson County and interchange replacement. This project would widen eight miles of I-94 from four-to six-lanes between M-60 and Sargent Road in Jackson and replace several functionally obsolete interchanges. It would ease congestion and enhance mobility in the corridor from Detroit to Chicago and is estimated to create 5,150 jobs during the multi-year construction phases.

6. Reconstruction and widening of I-196 in the Grand Rapids area. This section of I-196 from US-131 easterly to I-96 would be widened from four to six lanes, adding capacity, correcting existing geometric deficiencies and improving deteriorating pavement conditions. The major commuting route from suburban Grand Rapids into the city would be enhanced while creating 4,630 jobs during the multi-year construction phase.

7. Detroit Intermodal Freight Terminal. The construction of an intermodal freight terminal, including the improvement of rail lines and local roads would allow for more efficient transfer of freight from rail to truck, which would attract business and industry freight shipping originating from and destined for Michigan; and would improve the economic viability of the surrounding community. Upon project completion, the DIFT project is projected to generate 4,500 permanent new jobs in Michigan with 1,500 of those jobs in the terminal area, and 2,300 jobs in the city of Detroit.

8. Blue Water Bridge Plaza at U.S./Canadian border. Located at the fourth-busiest crossing between the U.S. and Canada, the plaza project would provide additional space for inspection booths, offices, docks to inspect and unload cargo, new security measures,

and parking for cars and trucks needing inspection. It would also improve the connecting roadways, reduce congestion and reduce delay for vehicles crossing the bridge. The Blue Water Bridge Plaza project is estimated to create 6,350 jobs during the multi-year construction phases.

9. Mackinac Bridge deck replacement. The project would include the design and construction of a new deck system on the suspended portion of the Mackinac Bridge and would allow this economic pathway to remain open for commerce to pass freely between the two peninsulas of Michigan. During the construction phase, an estimated 1,630 jobs would be created.

10. US-23 widening and bridge replacement in Ann Arbor. The project would widen US-23 from four to six lanes and replace several obsolete and deteriorated interchanges and structures over the freeway. This project is estimated to create 4,400 jobs during the construction phase and would provide access to Ann Arbor from the north and provide north south access from the state line to I-75 north of metro Detroit. This corridor is also on the US Strategic Highway Network (STRAHNET) and serves as a national defense route.

11. Ambassador Bridge Enhancements. The replacement of the Ambassador Bridge would support more efficient cross-border travel by freight shippers originating from and destined for Michigan businesses and industries, and by employees destined for regional jobs.

12. I-94 widening in Kalamazoo. Widening six miles of I-94 from four to six lanes between Westnedge Ave. and Sprinkle Road in Kalamazoo would increase roadway capacity, address existing geometric deficiencies and improve deteriorated road and bridge conditions. In addition to facilitating mobility and commerce, the I-94 project is estimated to create 590 jobs during the multi-year construction phases.

13. Replacement of the Detroit River Rail tunnel from Detroit to Windsor. Construction of a replacement tunnel would replace aging infrastructure and allow for double-stack cargo trains for freight movement. The project would enhance economic growth by supporting additional cross-border capacity for rail freight shippers originating from and destined for Michigan businesses and industries.

14. Woodward Avenue Rapid Transit Service. The construction of a rapid transit service on Woodward Avenue from 8 Mile to M-59 would provide additional travel option for residents, students, and workers traveling along the corridor and connect to other proposed rapid transit lines. In addition to initial creation of construction jobs, the project is expected to spur transit-oriented development in the area.

15. US-23 Widening in Washtenaw and Livingston Counties. Widening US-23 to six lanes from M-14 to the Washtenaw County Line would increase capacity and safety along the corridor, while facilitating more efficient travel. These improvements would

serve to attract and retain business and industry and better address the personal mobility needs of Michigan workers.

16. US-127 improvements in Clinton County. Replacing the existing four lane cross section with access controlled freeway would reduce crash rates and provide a modern facility.

17. Construction of the US 131/I-196 Interchange in Kent County. The construction of the interchange would increase capacity and safety at the crossroads of two of the most major highways in West Michigan. The improvements would create initial construction jobs in addition to increasing personal and commercial mobility in the area, which would stimulate economic growth.

18. Gratiot Avenue Rapid Transit. Spanning from Woodward Avenue to M-59 in the Detroit area, the transit route would provide additional travel option for residents, students, and workers traveling along the corridor and connect to other proposed rapid transit lines. In addition to initial creation of construction jobs, the project is expected to spur transit-oriented development in the area.

19. M-59 Rapid Transit Route. Spanning from Telegraph Road to Gratiot Avenue in the Detroit area, the transit route would provide additional travel option for residents, students, and workers traveling along the corridor and connect to other proposed rapid transit lines. In addition to initial creation of construction jobs, the project is expected to spur transit-oriented development in the area.

20. Reynolds Road extension and Kalamo Road upgrades in Eaton County. The construction of an extension of Reynolds Road to Kalamo Highway and the upgrading of Kalamo Highway from Reynolds Road to Cochran Ave. (M-50) would support the expansion of the industrial/ business park. The addition of infrastructure to serve this area would benefit expansion plans of Spartan Chassis, one of the county's major employers, and make it marketable for other job-generating business developments. The proposed road would create an additional ingress/egress that improves safety, traffic flow and emergency services, and assists existing businesses in the industrial park. It is estimated that 400 new jobs would be created, and 1,000 other jobs retained at Spartan Chassis and its subsidiaries alone.

21. East Beltline Bus Rapid Transit in Grand Rapids. This route would provide transit access from 68th Street to 10 Mile Road, one of the busiest north-south corridors in the Grand Rapids metropolitan area. This project is needed to expand useful transit, reduce congestion, increase mobility, reduce emissions, reduce travel time and improve the transportation of the second largest metropolitan area in the state.

22. I-75 partial widening and reconstruction in Saginaw. This project would reconstruct and add lanes to I-75 from north of Dixie Highway to the south junction of I-675, the primary route for accessing the northern Lower Peninsula from Flint, Saginaw

and Metro Detroit. It would improve conditions on this heavily traveled route and is estimated to create 1,600 jobs during the multi-year construction phases.

23. Reconstructing the US-131 corridor from the Kent County Line to Wealthy Street. US-131 is an important link for West Michigan residents and businesses and preserving this asset is important to the local economy. Reconstructing the corridor would create more than 1,400 jobs during the multi-year construction phase and improve access from Kalamazoo and Battle Creek to Grand Rapids and the tourist areas of northern Michigan.

24. Reconstruction of 11 miles of I-96 in Kent County. Stretching from the Grand River to M-11, this reconstruction project would improve the primary connection between Grand Rapids, Lansing and Metro Detroit. The project would create 2,326 jobs and provide improved access to the Grand Rapids industrial and service employment centers, including the Life Sciences Corridor and the office furniture manufacturers located within the city.

25. I-69/I-94 Interchange Reconstruction in St. Clair County. Reconstructing this interchange at the U.S./Canada border would improve deteriorated road conditions and is estimated to create 261 jobs during the multi-year construction phases.

Population, Travel and Economic Trends in Michigan

While the United States entered a significant economic downturn in 2008, including a large increase in unemployment, Michigan has experienced severe economic distress for a decade. Over the last 10 years, the state's inflation-adjusted gross domestic product has decreased and unemployment rates more than quadrupled.

From 2000 to 2008, Michigan's gross domestic product (GDP), when adjusted for inflation, decreased by nine percent while the national average GDP increased by 52 percent.¹ Michigan's unemployment rate increased from 3.4 percent in January 2000 to 14.1 percent in February 2010, the highest unemployment rate in the nation.² During this period, the number of jobs in the state dropped 16 percent, from approximately 4.97

million to 4.16 million, and the number of unemployed increased from 175,000 to 684,000.³

The loss of employment in Michigan has contributed to a loss of population in the state as residents seek employment elsewhere. From 2000 to 2007, Michigan's population increased slightly, from 9,950,000 to 10,050,000. However, it decreased to 10,000,000 in 2008 and fell to 9,970,000 in 2009.⁴ A recent analysis of U.S. Census Bureau and Internal Revenue Service data found that Michigan is becoming less populated, less educated and poorer because those leaving Michigan tend to be the people that the state can least afford to lose – the young and college-educated.⁵

As a result of the state's economic woes, the rate of vehicle travel growth in Michigan has slowed significantly since 2000. From 1990 to 2000, vehicle miles of travel in Michigan increased by 21 percent, but from 2000 to 2008 vehicle travel in the state increased by just two percent.⁶

Michigan's Surface Transportation System

Today Michigan is served by a system of 121,595 miles of roads and 10,921 bridges. This system is maintained by local, state and federal governments and carries 100 billion vehicle miles of travel each year. Seventy-nine public transit agencies also operate in the state, including 20 urban public transit agencies.⁷

Michigan's surface transportation system has significant deficiencies and many key routes are congested. More than a third of the state's major roads are deficient, with 18 percent of the Michigan's major roads rated in poor condition in 2008 and another 17

percent rated in mediocre condition.⁸ In 2008, fourteen percent of the state's bridges were rated structurally deficient because they are in need of repair or replacement, and another 12 percent were rated as functionally obsolete, because they do not meet modern design standards.⁹ And, many of Michigan's largest urban areas experience significant traffic congestion on key routes, with 39 percent of the state's urban highways rated as congested in 2008.¹⁰

The Importance of Transportation to Michigan's Economy

As Michigan begins to rebuild its faltering economy, it is likely that the state will need to adopt an economic model that is less reliant on manufacturing jobs and more reliant on higher-paying, knowledge-based employment. This approach is consistent with national trends, where the economy is increasingly service-based, less dependent on natural resource production and manufacturing and more dependent on information, technology and creativity.¹¹ While nearly half of Michigan's jobs were manufacturing-related in the early 1960s, today approximately 18 percent of the state's employment is in the manufacturing sector, which is still a share approximately 50 percent higher than the national average.¹²

Although manufacturing will continue to play a significant role in Michigan's future, it is likely that most of the state's employment growth will come in other sectors, including tourism, education, healthcare, entertainment, engineering and information technology. While employment in most sectors of the state's economy has decreased

since 2000, total employment in the education, health services, leisure and hospitality fields has actually increased.¹³

Supporting Michigan's economic recovery will require that the state build and maintain a transportation system that provides reliable and safe mobility to enhance business competitiveness.

Highways are vitally important to fostering economic development in Michigan. 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, \$389 billion in goods are shipped from sites in Michigan and another \$407 billion in goods are shipped to sites in Michigan, mostly by trucks.¹⁴ Seventy-eight percent of the goods shipped annually from sites in Michigan are carried by trucks and another seven percent are carried by courier services, which use trucks for part of their deliveries. Similarly, 83 percent of the goods shipped to sites in Michigan are carried by trucks and another nine percent are carried by courier services.¹⁵

How Transportation Improvements Support Economic Growth

Because it impacts the time it takes to transport people and goods, as well as the cost of travel, the level of mobility provided by a transportation system and its physical condition play a significant role in determining a region's economic effectiveness.

Michigan's businesses are dependent on an efficient, safe, and modern transportation system. The new culture of business demands that an area have a well-maintained and efficient system of roads, highways, bridges and public transportation if it is to be economically competitive. The advent of modern national and global communications and the impact of free trade in North America and elsewhere have resulted in a significant increase in freight movement. Consequently, the quality of a region's transportation system has become 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 by accepting customer orders through the Internet. 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.

The economic benefits of a well-maintained, efficient and safe transportation system can be divided into several categories, including the following.

Improved competitiveness of industry An improved transportation system reduces costs of production and distribution by lowering barriers to mobility and increasing travel speeds. Improved mobility provides the manufacturing, retail and service sectors improved and more reliable access to increased and often lower-cost sources of labor, inventory, materials and customers.¹⁶ An increase in travel speeds of 10

percent has been found to increase labor markets by 15 to 18 percent and a 10 percent increase in the size of labor markets has been found to increase productivity by an average of 2.9 percent.¹⁷

Improved household welfare An improved transportation system gives households better access to higher-paying jobs, a wider selection of competitively priced consumer goods, and additional housing and healthcare options. A good regional transportation system can also provide mobility for people without access to private vehicles, including the elderly, disabled and people with lower incomes.¹⁸

Improved local, regional and state economies By boosting regional economic competitiveness, which stimulates population and job growth, and by lowering transport costs for businesses and individuals, transportation improvements can bolster local, regional and state economies. Improved transportation also stimulates urban and regional redevelopment and reduces the isolation of rural areas.¹⁹

Increased leisure/tourism and business travel The condition and reliability of a region's transportation system impacts the accessibility of activities and destinations such as conferences, trade shows, sporting and entertainment events, parks, resort areas, social events and everyday business meetings. An improved transportation system increases the accessibility of leisure/tourism and business travel destinations, which stimulates economic activity.²⁰

Reduced economic losses associated with vehicle crashes, traffic congestion and driving on deficient roads When a region's transportation system lacks some desirable safety features, is congested or is deteriorated, it increases costs to the public and businesses in the form of traffic delays, increased costs associated with traffic

crashes, increased fuel consumption and increased vehicle operating costs.

Transportation investments that improve roadway safety, reduce congestion and improve roadway conditions benefit businesses and households by saving time, lives and money.

Transportation investment creates and supports both short-term and long-term 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.²¹ In addition to the numerous jobs provided by industries that rely on a reliable transportation network, there are 284,000 jobs – seven percent of state employment – in Michigan in the for-hire transportation and transportation-related industries.²²

Needed transportation projects that expand capacity and preserve the existing transportation system generate significant economic benefits. Transportation projects that provide additional roadway lanes, expand the efficiency of a current roadway (through improved signalization, driver information or other Intelligent Transportation Systems), or provide additional transit capacity, produce significant economic benefits by reducing congestion and improving access, thus speeding the flow of people and goods.²³ Similarly, transportation projects that maintain and preserve existing transportation infrastructure also provide significant economic benefits. The preservation of transportation facilities improves travel speed, capacity, load-carry abilities and safety, while reducing operating costs for people and businesses.²⁴ Projects that preserve existing transportation infrastructure also extend the service life of a road, bridge or

transit vehicle and save money by postponing or eliminating the need for more expensive future repairs.²⁵

Conclusion

Michigan's surface transportation system has played a critical role as the backbone of the state's economy by providing mobility to residents, visitors and businesses. But as Michigan looks to recover from a significant economic downturn, the improvement of its system of roads, bridges and public transit will allow the state to transition to a modern economic model. These needed surface transportation improvements will provide Michigan's residents with a high quality of life and afford its businesses a high level of economic competitiveness.

In order to realize Michigan's potential for economic growth, the state will need to improve the condition of its roads, highways, bridges and transit systems and expand the capacity of its surface transportation system.

Making needed improvements to Michigan's transportation system will foster economic resurgence and competitiveness and re-establish Michigan as an attractive place to live, work and do business.

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Endnotes

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- ¹ TRIP analysis of Bureau of Economic Analysis gross domestic product estimates for Michigan all industry total, adjusted by consumer price index.
- ² Bureau of Labor Statistics, Local Area Unemployment Statistics. 2010.
- ³ Ibid.
- ⁴ U.S. Census Bureau estimate.
- ⁵ “Leaving Michigan Behind: Eight-year population exodus staggers state.” Detroit News. April 2, 2009.
- ⁶ U.S. Department of Transportation - Federal Highway Administration: Highway Statistics 1990, 2000 and 2008. VM-2.
- ⁷ TRIP analysis of Federal Highway Administration and Michigan Public Transit Association data.
- ⁸ TRIP analysis of Federal Highway Administration data (2008). Highway Statistics 2008, HM-63, HM-64.
- ⁹ National Bridge Inventory (2009), Federal Highway Administration.
- ¹⁰ TRIP analysis of Federal Highway Administration data (2007). Highway Statistics 2007, HM-61.
- ¹¹ The Transportation Challenge: Moving the U.S. Economy (2008). National Chamber Foundation. p. 6.
- ¹² Ballard, Charles (2008) Michigan Economic Outlook.
- ¹³ Ibid.
- ¹⁴ Bureau of Transportation Statistics, U.S. Department of Transportation. 2002 Commodity Flow Survey, State Summaries.
- ¹⁵ Ibid.
- ¹⁶ National Cooperative Highway Research Program. Economic Benefits of Transportation Investment (2002). p. 4.
- ¹⁷ The Transportation Challenge: Moving the U.S. Economy (2008). National Chamber Foundation. p. 10.
- ¹⁸ Ibid.
- ¹⁹ Ibid.
- ²⁰ Ibid.
- ²¹ Federal Highway Administration (2008). Employment Impacts of Highway and Infrastructure Investment.
- ²² Bureau of Labor Statistics (2009). Occupation Employment Statistics. Transportation and Material Moving Occupations.
- ²³ The Transportation Challenge: Moving the U.S. Economy (2008). National Chamber Foundation. p. 5.
- ²⁴ Ibid.
- ²⁵ Ibid.