Top 25 Surface Transportation Projects to Support Economic Growth in Wyoming

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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

Wyoming'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 bridges are the backbone of a transportation system that has helped make Wyoming a leader in the energy, agriculture and tourism sectors. Wyoming's transportation system also provides for a high quality of life and makes the state a desirable place to live and visit. Today, Wyoming must continue to develop its economy to meet the demands of the 21st Century. The condition and quality of its transportation system will play a critical role in Wyoming's ability to continue to rebound from the recession and to capitalize on its economic advantages.

To achieve sustainable economic growth, Wyoming must proceed with numerous projects to improve key roads, highways and bridges in the state to support economic growth, particularly in its booming energy sector. Enhancing critical segments of Wyoming'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 enhance economic competitiveness and improve the quality of life for the state's residents and visitors by reducing travel delays and transportation costs, improving access and mobility, improving safety and stimulating sustained job growth.

In this report, TRIP examines recent transportation and economic trends in Wyoming and provides information on the surface transportation projects in the state that are most needed to support economic growth. Sources of data include the Wyoming Department of Transportation (WYDOT), 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 25 surface transportation projects that are most needed to support Wyoming's economic growth. These projects are located throughout the state.

- The most needed surface transportation improvements in Wyoming include projects to modernize existing roadways, add lanes to existing roadways, improve interchanges and construct some new highway links. These improvements would enhance economic development opportunities in the state's burgeoning energy sector as well as in other critical areas of the state's economy including tourism, agriculture and manufacturing. Addressing these projects would also improve safety on the state's roads, which would lower the financial and economic costs of traffic crashes.
- 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.
- Wyoming's 10 most needed surface transportation projects to support economic development in the state are as follows. Additional details on the 25 most needed projects in Wyoming for economic recovery and growth are included in the report's Appendix.
- 1. Modernization of the entire length of Interstate 80 within the state. Spanning 400 miles across Wyoming, Interstate 80 is the backbone of the state's economy and a critical national east-west link for freight movement and passenger vehicle travel. This \$290 million modernization project would improve traffic flow and reliability on this route, particularly during the winter. The improvements include the construction of variable speed limits, truck climbing lanes, truck parking areas and chain-up areas. This project will also provide significant safety benefits.
- 2. Widening of a 36-mile portion of Wyoming Route 59 in Campbell County to four lanes. This \$97 million project would widen this route from Wright to Gillette to improve access to the Powder River Basin area, the largest producer of low sulfur coal in the nation. This project will also provide significant safety benefits.
- 3. Reconstruction and redesign of the interchange of Interstate 80 and Interstate 25 in Cheyenne. This \$325 million project would modernize the state's busiest interchange and improve safety and traffic flow. The out-dated design of the interchange impedes vehicle traffic, particularly freight shipments, restricting access to nearby distribution centers and other businesses.
- 4. Construction of West Beltway Loop Highway in Casper. The current alignment carries significant traffic, particularly during the winter when large trucks and other traffic must detour around portions of Interstate 80 during extreme weather. The \$58 million construction of a Western Loop Highway in the Casper area would improve freight movement and stimulate economic development along this corridor.
- 5. Construction of a new 1.6 mile connector route in Torrington to replace intersection of US 85 and US 20-26. This \$35 million project would improve access to Niobrara Oil Play and decrease conflicts with Powder River Basin low sulfur coal shipments while improving connections for freight and livestock movement from the Heartland Express to Interstates 80 and 25.
- 6. Modernizing approximately 100 miles of county roads in Campbell County. This \$101 million project would improve traffic flow, particularly for large trucks, to and from coal mines in the Powder River Basin area. It would include the realignment of some routes and would help accommodate continued expansion of coal extraction in this region.

- 7. Widening of US Route 20/26 from two to four lanes from Casper to Shoshoni. This \$342 million project would add two additional lanes and renovate the two existing lanes of an 88-mile portion of US Route 20/26. This project would address the lack of connectivity in the central portion of Wyoming to any multilane highways while improving access for energy exploration and development, agriculture, and tourism. This project will also provide significant safety benefits.
- 8. Widening the existing Wind River Canyon tunnels. The \$36 million project would allow large commercial trucks to access the Big Horn Basin without detouring through Billings, Montana. It would greatly improve commercial access to the region, which would positively impact tourism and agriculture.
- 9. New three-mile connector route from Interstate 80 in Laramie County to WY 213 past Burns, Wyoming. This \$9 million project would replace an existing roadway/rail crossing, which causes long delays whenever a train crosses, with a grade-separated route. It would eliminate delays at the intersection of the highway and rail routes and improve access to the Niobrara Oil Play. The project would also increase traffic safety along this corridor.
- 10. Construction of a 16-mile Western Beltway Loop in Sheridan. This \$80 million project would relieve heavy commercial truck travel moving to Interstate 90 and improve access in the western part of this region, which is experiencing significant growth due to continued expansion in oil, gas and coal extraction. The project would also enhance commercial and residential development opportunities in the western part of the region.

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 while reducing fuel consumption.
- 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.
- 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.

While the United States entered a significant economic downturn in 2008, including a large increase in unemployment, Wyoming has fared better economically than most of the nation, buoyed in particular by a strong energy sector, which includes oil, gas and coal extraction.

• In November, 2008, Wyoming's unemployment rate was 3.8 percent, significantly lower than the national 6.9 percent unemployment rate. With demand for energy and other materials declining as a result of the U.S. and global recession, unemployment peaked in Wyoming in January 2010, with an unemployment rate of 7.6 percent, which was still lower than the national 9.7 percent unemployment rate at that time.

- In 2010, Wyoming's economy started to slowly rebound. Led by energy exploration, Wyoming's economy is recovering as the labor market slowly adds jobs, buoyed by increasing prices for energy. However, a faster economic recovery for the state will require a stronger U.S. economic recovery, which will increase the demand for energy. By November 2010, Wyoming's unemployment rate had decreased to 6.6 percent, significantly lower than the national 9.8 percent unemployment rate.
- In 2009, Wyoming experienced the second highest rate of economic growth in the U.S. behind only Oklahoma with a 5.4 percent increase in real gross domestic product (GDP) when adjusted for inflation. Real GDP in the U.S. declined by 2.1 percent in 2009.
- From 1990 to 2009, Wyoming's population increased by 20 percent, from 454,000 to 544,000. Wyoming's population is expected to increase by another 14 percent by 2030 to approximately 621,000.
- From 1990 to 2008, annual vehicle-miles-of-travel (VMT) in the state increased by 62 percent, from approximately 5.8 billion VMT to 9.4 billion VMT. Based on travel and population trends, TRIP estimates that vehicle travel in Wyoming will increase by another 50 percent by 2030, reaching approximately 14.2 billion VMT.

Wyoming'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.

- Wyoming is served by a system of 28,105 miles of roads and 3,054 bridges, maintained by local, state and federal governments, which carry 9.5 billion vehicle miles of travel annually.
- Nearly a fifth of the state's major roads are deficient, with four percent of Wyoming's major roads rated in poor condition in 2008. An additional 14 percent of the state's major roads were rated in mediocre condition in 2008.
- Thirteen percent of Wyoming's bridges were rated structurally deficient in 2009,.
 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, school buses and emergency services vehicles.
- In 2009 nine percent of Wyoming's bridges were rated as functionally obsolete. Bridges that are functionally obsolete no longer meet current highway design standards, often because of narrow lanes, inadequate clearances or poor alignment.

- Every year, \$24 billion in goods are shipped annually from sites in Wyoming and another \$28 billion in goods are shipped annually to sites in Wyoming, mostly by truck.
- Fifty-three percent of the goods shipped annually from sites in Wyoming are carried by trucks and another seven percent are carried by multiple modes of transportation, including trucks.

Sources of data for this report include the Wyoming Department of Transportation (WYDOT), 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

Wyoming's transportation system has served as the backbone of the Equality
State's economy, providing mobility to the state's residents, visitors and businesses.
Wyoming'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 allowed the state's industries to access customers, suppliers and
employees. This has been especially critical for Wyoming's booming energy sector, as
well as the state's tourism, agriculture and manufacturing industries.

But Wyoming's highway system has significant deficiencies that could prevent the state from reaching its full economic potential as a leader in energy, tourism, agriculture and manufacturing. In order to insure that the state's economy recovers from its recent downturn and returns to significant and sustained growth, Wyoming must improve and expand key highways in the state, which will improve traffic safety and advance access throughout the state.

Over the last decade, Wyoming has experienced significant economic growth, largely as a result as expansion of oil, gas and coal extraction in the state. But Wyoming has not been immune to the national economic downturn, and must make infrastructure investments that will stimulate job growth and support the state's long-term economic growth by improving access for the state's key economic sectors: energy, tourism and agriculture. 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 plays a significant role in 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 25 surface transportation projects in Wyoming that are most needed to spur economic growth in the state and assist in Wyoming's economic recovery. Information on these projects, such as location, 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 Wyoming's economy can be found in the report with additional details available in the Appendix.

Transportation Projects Impact the Economy

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 Wyoming Department of Transportation (WYDOT). TRIP asked the agency to identify the surface transportation projects that would provide the greatest contribution to Wyoming's economic recovery and future growth. The projects include the reconstruction, expansion, or improvement of existing transportation facilities or the construction of new transportation facilities.

WYDOT 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 provided by the project.

The 25 Surface Transportation Projects Most Needed to Stimulate Wyoming's Economy

TRIP has identified the 25 surface transportation projects that are most needed to support Wyoming's economic recovery and growth. These projects are located throughout the state and include improvements to roads, highways and interchanges.

To rank the projects submitted by WYDOT, 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.

Wyoming's 25 most needed surface transportation projects for economic recovery are as follows. Additional detail, including the status of each project, is included in the report's Appendix.

- 1. Modernization of the entire length of Interstate 80 within the state. Spanning 400 miles across Wyoming, Interstate 80 is the backbone of the state's economy and a critical national east-west link for freight movement and passenger vehicle travel. This \$290 million modernization project would improve traffic flow and reliability on this route, particularly during the winter. The improvements include the construction of variable speed limits, truck climbing lanes, truck parking areas and chain-up areas. This project will also provide significant safety benefits.
- 2. Widening of a 36-mile portion of Wyoming Route 59 in Campbell County to four lanes. This \$97 million project would widen this route from Wright to Gillette to improve access to the Powder River Basin area, the largest producer of low sulfur coal in the nation. This project will also provide significant safety benefits.
- 3. Reconstruction and redesign of the interchange of Interstate 80 and Interstate 25 in Cheyenne. This \$325 million project would modernize the state's busiest interchange and improve safety and traffic flow. The out-dated design of the interchange impedes

vehicle traffic, particularly freight shipments, restricting access to nearby distribution centers and other businesses.

- **4.** Construction of West Beltway Loop Highway in Casper. The current alignment carries significant traffic, particularly during the winter when large trucks and other traffic detour around portions of Interstate 80 during extreme weather. The \$58 million construction of a Western Loop Highway in the Casper area would improve freight movement and stimulate economic development along this corridor.
- **5.** Construction of a new 1.6 mile connector route in Torrington to replace intersection of US 85 and US 20-26. This \$35 million project would relieve congestion at this intersection and improve access to the Niobrara Oil Play and decrease conflicts with Powder River Basin low sulfur coal shipments while improving freight connections for freight and livestock movement from the Heartland Express to Interstates 80 and 25.
- **6. Modernizing approximately 100 miles of county roads in Campbell County**. This \$101 million project would include the realignment of some routes and would help accommodate continued expansion of coal extraction in this region. It would improve traffic flow, particularly for large trucks to and from coal mines in the Powder River Basin area.
- **7.** Widening of US Route 20/26 from two to four lanes from Casper to Shoshoni.

 This \$342 million project would add two additional lanes and renovate the two existing

lanes of an 88-mile portion of US Route 20/26. This project would address the lack of connectivity in the central portion of Wyoming to any multi-lane highways while improving access for energy exploration and development, agriculture and tourism. This project will also provide significant safety benefits.

- 8. Widening the Wind River Canyon tunnels to accommodate the access of oversized commercial trucks to the Big Horn Basin. This \$36 million project would allow large commercial trucks to access the Big Horn Basin without detouring through Billings, Montana. It would greatly improve commercial access to the region, which would positively impact tourism and agriculture.
- 9. New three-mile connector route from Interstate 80 in Laramie County to WY 213 past Burns, Wyoming. This \$9 million project would replace an existing roadway/rail crossing, which causes long-delays whenever a train crosses, with a grade-separated route. It would eliminate delays at the intersection of the highway and rail routes and improve access to the Niobrara Oil Play. The project would also increase traffic safety along this corridor.
- **10.** Construction of a 16-mile Western Beltway Loop in Sheridan. This \$80 million project would help move commercial truck travel to Interstate 90 and improve access in the western part of this region, which is experiencing significant growth due to continued expansion in oil, gas and coal extraction. The project would also enhance commercial and residential development opportunities in the western part of the region.

11. The construction of a 14-mile Southern Beltway Loop in Southwest Gillette.

This \$70 million project would alleviate traffic in town, particularly large commercial vehicles. It would improve access to the Southwestern portion of Gillette, the fourth largest city in Wyoming, which is also seeing some of the largest population growth in the state. This project would facilitate the movement of heavy equipment to and from the region's mining, oil and gas facilities and improve regional traffic safety.

12. Widening and relocating a 16-mile portion of Wyoming 51 in Campbell County.

This \$27 million project would improve access to coal mines in the Powder River Basin area and allow recovery of additional coal in the area and will improve regional traffic safety.

13. Modernizing a nine-mile portion of US 14 in Campbell County. This project would allow US 14 to accommodate large-vehicles serving oil and gas development in the region while improving traffic safety. The \$17 million project will include widening and resurfacing of the route.

14. Modernization of Wyoming 451 from Big Piney to Pinedale in southwest

Wyoming. This region is home to some of the largest gas fields in the nation. The \$45 million project, which will include widening, bridge reconstruction and resurfacing, will allow the road to better accommodate large commercial trucks and will improve traffic safety.

- 15. Widening to multi-lanes of 12 miles of US 287 from Laramie to the Colorado state line. The \$56 million project will widen a route that is often used as a cut-off by I-80 travelers headed to Colorado, particularly during inclement weather. Widening this route will improve access for large trucks and will improve traffic safety.
- **16.** Construction of passing lanes on 32-mile section of US 85 from Cheyenne towards Torrington. Freight traffic, particularly oil rigs, continues to increase on this route as a result of oil production in the Niobrara Oil Play. This \$8.6 million project will help accommodate increased oil production in the area and improve traffic safety.
- 17. Widening and modernizing a 22-mile portion of Wyoming 450 from Newcastle to Wright in Campbell County. This project will improve access to coal mines in the Powder River Basin area and allow recovery of additional coal. This \$40 million project will also improve regional traffic safety.
- **18.** Widening a 10.5-mile portion of Wyoming 59 north of Douglas in Converse County. The \$28 million project will ease growing commuter and freight traffic congestion headed into the Wyoming Powder River Basin low sulfur coal fields. The modernization of this roadway will also improve traffic safety.
- **19. Modernizing a 7-mile portion of Wyoming 132 in Fremont County.** This \$14 million project would reconstruct and replace a bridge on a section of roadway in the Ethete area, which serves the Wind River Indian Reservation. The improvement of this

route will enhance economic development opportunities in this area and improve traffic safety.

- 20. Widening and resurfacing US 189 between LeBarge and Big Piney in Sublette County. This \$10 million project will improve access to the region's oil and gas fields, and will improve traffic safety.
- 21. Reconstructing a 7.5-mile portion of US 287 through the Wind River Indian Reservation in Fremont County. The \$18 million improvement to this route will improve access to the Reservation as well as to Teton and Yellowstone national parks. This project will improve traffic safety and benefit tourism and agriculture.
- **22.** Adding an interchange and reconstructing a portion of Blairtown Road in Rock Springs. This \$15 million project will improve access to Interstate 80 in a region that is experiencing significant growth because of its proximity to nearby gas and oil fields. This project will open new areas for commercial and industrial growth and improve traffic safety.
- **23.** Widening a portion of US 191 in Pinedale from two lanes to five lanes. The \$3.7 million project in Sublette County would improve access to nearby oil and gas fields and improve traffic safety on this route.

- 24. Widening and adding turn lanes to eight miles of Big Piney Road in Sublette County. The \$3 million project would improve access to nearby oil and gas fields and improve traffic safety on this route.
- **25.** Construction of Speedway Road to connect I-25 to US 85 in Cheyenne. This \$4.5 million project would construct a 1.5 mile connector road between two major highways in the region. The project will improve access to a new industrial park in the area and enhance commercial and residential development opportunities along this corridor.

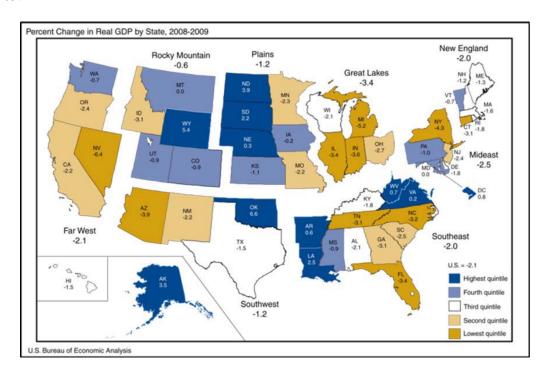
Population, Travel and Economic Trends in Wyoming

While the United States entered a significant economic downturn in 2008, including a large increase in unemployment, Wyoming has fared better than most of the nation, buoyed in particular by a strong energy sector, which includes oil, gas and coal extraction. Other significant sectors of Wyoming's economy include tourism, agriculture and manufacturing.

Wyoming's economic recession did not start until the end of 2008, lagging the U.S. recession by about one year. ¹ In November, 2008, Wyoming's unemployment rate was 3.8 percent, significantly lower than the national 6.9 percent unemployment rate. ² With demand for energy and other materials declining as a result of the U.S. and global recession, unemployment peaked in Wyoming in January 2010, with an unemployment rate of 7.6 percent, which was still lower than the national 9.7 percent unemployment rate.³

In 2010, Wyoming's economy started to slowly rebound. Led by energy exploration, Wyoming's economy is recovering as the labor market slowly adds jobs, buoyed by increasing prices for energy. However, a faster economic recovery for the state will require a stronger U.S. economic recovery, which will increase the demand for energy. By November, 2010, Wyoming's unemployment rate had decreased to 6.6 percent, significantly lower than the national 9.8 percent unemployment rate. 5

In 2009, Wyoming experienced the second highest rate of economic growth in the U.S.- behind only Oklahoma - with a 5.4 percent increase in real gross domestic product (GDP) when adjusted for inflation.⁶ Real GDP in the U.S. declined by 2.1 percent in 2009.⁷



Wyoming continues to experience population growth, largely as a result of an expanding economy. From 1990 to 2009, Wyoming's population increased by 20 percent, from 454,000 to 544,000. Wyoming's population is expected to increase by another 14 percent by 2030 to approximately 621,000.

The continued increase in population has resulted in significant increases in vehicle travel in Wyoming. From 1990 to 2008, annual vehicle-miles-of-travel (VMT) in the state increased by 62 percent, from approximately 5.8 billion VMT to 9.4 billion VMT. Based on travel and population trends, TRIP estimates that vehicle travel in Wyoming will increase by another 50 percent by 2030, reaching approximately 14.2 billion VMT.

Wyoming's Surface Transportation System

Wyoming is served by a system of 28,105 miles of roads and 3,054 bridges. This system is maintained by local, state and federal governments and carries 9.5 billion vehicle miles of travel each year. Wyoming's roads, highways and bridges have some deficiencies. Nearly a fifth of the state's major roads are deficient, with four percent of the Wyoming's major roads rated in poor condition in 2008 and another 14 percent rated in mediocre condition. In 2009, thirteen percent of Wyoming's bridges were rated structurally deficient because they are in need of repair or replacement, and another nine percent of the state's bridges were rated as functionally obsolete, because they do not meet modern design standards.

The Importance of Transportation to Wyoming's Economy

Supporting Wyoming'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 Wyoming. 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, \$24 billion in goods are shipped from sites in Wyoming and another \$28 billion in goods are shipped to sites in Wyoming, mostly by trucks. ¹⁴ Fifty-three percent of the goods shipped annually from sites in Wyoming are carried by trucks and another seven percent are carried by multiple modes of transportation, including trucks. 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.

Wyoming's businesses are dependent on an efficient, safe, and modern transportation system. Today's business culture 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. 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. Provides the manufacturing and increase in the size of labor markets has been found to increase productivity by an average of 2.9 percent.

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

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. ²² 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. ²³ 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. ²⁴

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. ²⁵

Conclusion

Wyoming'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 Wyoming looks to rebound from a recent economic downturn, the improvement of its system of roads, highways and bridges will allow the state to support further economic growth, particularly in its key energy, tourism, agriculture and manufacturing sectors. These needed surface transportation improvements will provide Wyoming's residents with a high quality of life and afford its businesses and industries a high level of economic competitiveness.

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

Making needed improvements to Wyoming's transportation system will support continued economic growth and competitiveness and help ensure that Wyoming remain an attractive place to live, work and do business.

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Endnotes

¹ Economic Analysis Division, State of Wyoming (September 2010). Economic Summary 2Q2010.

² Bureau of Labor Statistics, United States Department of Labor (2010). Local Area Unemployment Statistics.

³ Ibid.

⁴ Economic Analysis Division, State of Wyoming (September 2010). Economic Summary 2Q2010.

⁵ Bureau of Labor Statistics, United States Department of Labor (2010). Local Area Unemployment

⁶ Bureau of Economic Analysis (2010). Regional Economic Accounts. GDP by State. http://www.bea.gov/newsreleases/regional/gdp_state/gsp_newsrelease.htm

⁸ TRIP analysis of U.S. Census Bureau data.

⁹ Wyoming Department of Administration and Information, Economic Analysis Division (2010). Wyoming and County Population Projections by age: 2008 to 2030.

¹⁰ TRIP analysis of Federal Highway Administration statistics.

¹¹ Federal Highway Administration (2010). Highway Statistics 2008.

¹² TRIP analysis of Federal Highway Administration data (2008). Highway Statistics 2008, HM-63, HM-

¹³ National Bridge Inventory (2009), Federal Highway Administration.

¹⁴ 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/

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 <u>Ibid.</u>

¹⁹ Ibid.

²¹ Federal Highway Administration, 2008. Employment Impacts of Highway Infrastructure Investment.

²²The Transportation Challenge: Moving the U.S. Economy (2008). National Chamber Foundation. p. 5.

²³ Ib<u>id</u>.

 $[\]frac{\overline{1}}{\underline{1}\underline{b}\underline{i}\underline{d}}$.

²⁵ 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.