



TranPlanMT

Moving Montana Forward. Together.

Volume II Transportation Users

November 2017



MONTANA
MDT★
DEPARTMENT OF TRANSPORTATION

 **DOWL**

FEHR  PEERS

Transportation Users



Prepared by:



For:



CONTENTS

| | |
|---|-----------|
| INTRODUCTION | 1 |
| WHAT WE KNOW | 1 |
| Driving | 2 |
| Miles of Travel | 2 |
| Roadway Operations | 7 |
| Driving Safety | 7 |
| Non-motorized Transportation | 12 |
| Usage and Demand | 13 |
| Pedestrian and Bicycle Safety..... | 14 |
| Public Transportation | 14 |
| Rail | 16 |
| Air | 16 |
| Urban and Rural Bus Systems..... | 18 |
| Public Transportation Safety | 19 |
| Freight | 20 |
| Governing Framework | 20 |
| Freight Commodities..... | 20 |
| Rail Freight | 23 |
| Commercial Vehicles | 26 |
| Trucking Safety | 28 |
| WHAT WE HEARD | 30 |
| MDT Biennial Survey | 30 |
| Public Comments | 33 |
| Stakeholder Feedback | 36 |
| MOVING MONTANA FORWARD | 38 |
| Goals and Strategies | 38 |
| Performance Management | 42 |
| SOURCES | 43 |

Figures

| | |
|---|---|
| Figure 1: Mode to Work..... | 1 |
| Figure 2: Traffic Flow in Montana, All Vehicles | 3 |
| Figure 3: Statewide Annual Vehicle Miles of Travel..... | 4 |
| Figure 4: Historic On-System Urban/Rural AVMT | 4 |
| Figure 5: Historic On-System AVMT by MDT District | 5 |
| Figure 6: Projected On-System DVMT by MDT District | 6 |
| Figure 7: MDT LOS Targets | 7 |
| Figure 8: Montana Vehicular Fatalities and Serious Injuries | 8 |
| Figure 9: Roadway Departure Crashes – Fatalities and Serious Injuries | 9 |

| | |
|---|----|
| Figure 10: Intersection Crashes – Fatalities and Serious Injuries..... | 10 |
| Figure 11: Impaired Driver Involved – Fatalities and Serious Injuries | 11 |
| Figure 12: Unrestrained Occupant – Annual Fatalities and Serious Injuries | 12 |
| Figure 13: Mode to Work by Bicycle | 13 |
| Figure 14: Mode to Work by Walking..... | 14 |
| Figure 15: Bicycle/Pedestrian Crashes – Fatalities and Serious Injuries | 14 |
| Figure 16: Public Transportation in Montana | 15 |
| Figure 17: Montana Enplanements by Percentage | 17 |
| Figure 18: Annual Transit Ridership..... | 18 |
| Figure 19: Annual Transit Mileage | 19 |
| Figure 20: Outbound/Inbound Commodities by Weight | 20 |
| Figure 21: Outbound/Inbound Commodities by Value | 21 |
| Figure 22: Montana Truck Border Crossings | 22 |
| Figure 23: Outbound/Inbound Modes by Weight | 23 |
| Figure 24: Outbound/Inbound Modes by Value..... | 23 |
| Figure 25: Montana Rail System | 24 |
| Figure 26: Coal Mode of Transport | 25 |
| Figure 27: Commercial AVMT | 26 |
| Figure 28: Commercial Vehicle Flows | 27 |
| Figure 29: Fatalities and Serious Injuries - Large Vehicle Involved | 28 |
| Figure 30: Truck Stop Parking Access in Montana..... | 29 |
| Figure 31: Perceived Need for Facilities, Equipment, or Services | 31 |
| Figure 32: Possible Improvements in the Trans. System and Roadways | 32 |

Tables

| | |
|--|----|
| Table 1: Commercial Vehicle Volumes | 28 |
| Table 2: General Public Comments..... | 33 |
| Table 3: Driving Comments..... | 33 |
| Table 4: Driving Safety Public Comments..... | 33 |
| Table 5: Non-Motorized Transportation Comments | 34 |
| Table 6: Public Transportation Public Comments..... | 34 |
| Table 7: Rail Service Public Comments..... | 34 |
| Table 8: Air Service Comments | 35 |
| Table 9: Intermodal Public Comments..... | 35 |
| Table 10: Trucking/Freight Public Comments..... | 35 |
| Table 11: Stakeholder Comments on Users..... | 36 |
| Table 12: Performance Management Measures..... | 42 |

INTRODUCTION

Transportation users access the transportation network by driving passenger and freight vehicles; riding in trains, buses, and airplanes; using wheelchairs; walking; and bicycling. Montana residents and nonresidents alike expect reliable options to facilitate safe travel within the state. A successful transportation network accommodates today’s users and those who will use the network in the future.



Plan Summary

Volume I: Assets

Volume II: Users

Volume III: Context

Volume IV: Management

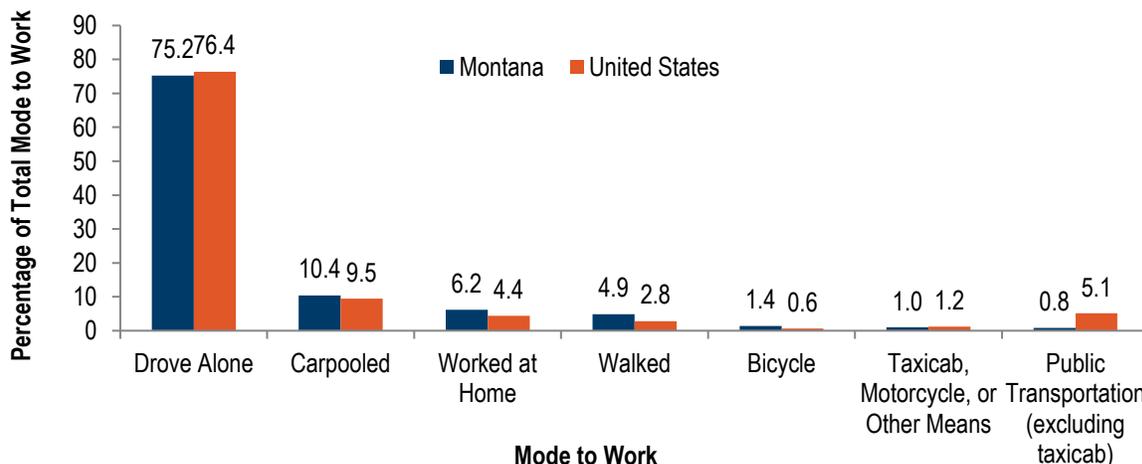
The Montana Department of Transportation (MDT) plans, designs, constructs, and maintains the transportation network to benefit and serve users. Careful consideration and understanding of user trends and characteristics helps to ensure MDT resources target the most critical user demands and needs.

Volume II of TranPlanMT focuses on transportation modes used across Montana, anticipated trends in user demand, and user effects on the transportation network. The base year for data is 2015 unless otherwise noted.

WHAT WE KNOW

The United States Census Bureau conducts surveys on commuting characteristics including means of transportation from home to work. The 2011-2015 journey-to-work data for Montana and the United States is provided in Figure 1. It demonstrates that 86 percent of the population drives alone or carpools via a motorized car, truck, or van. Driving alone and carpooling trends in Montana are similar to the United States as a whole. Non-motorized transportation modes make up approximately six percent of work trips in Montana and public transportation makes up a very small percentage of the commute share, with only 0.8 percent using public transportation for work trips. Montana has slightly higher rates of walking and bicycling than the United States and a lower rate of public transportation use. The following sections discuss Montana’s primary transportation modes.

Figure 1: Mode to Work



Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-year Estimates; DOWL 2017.

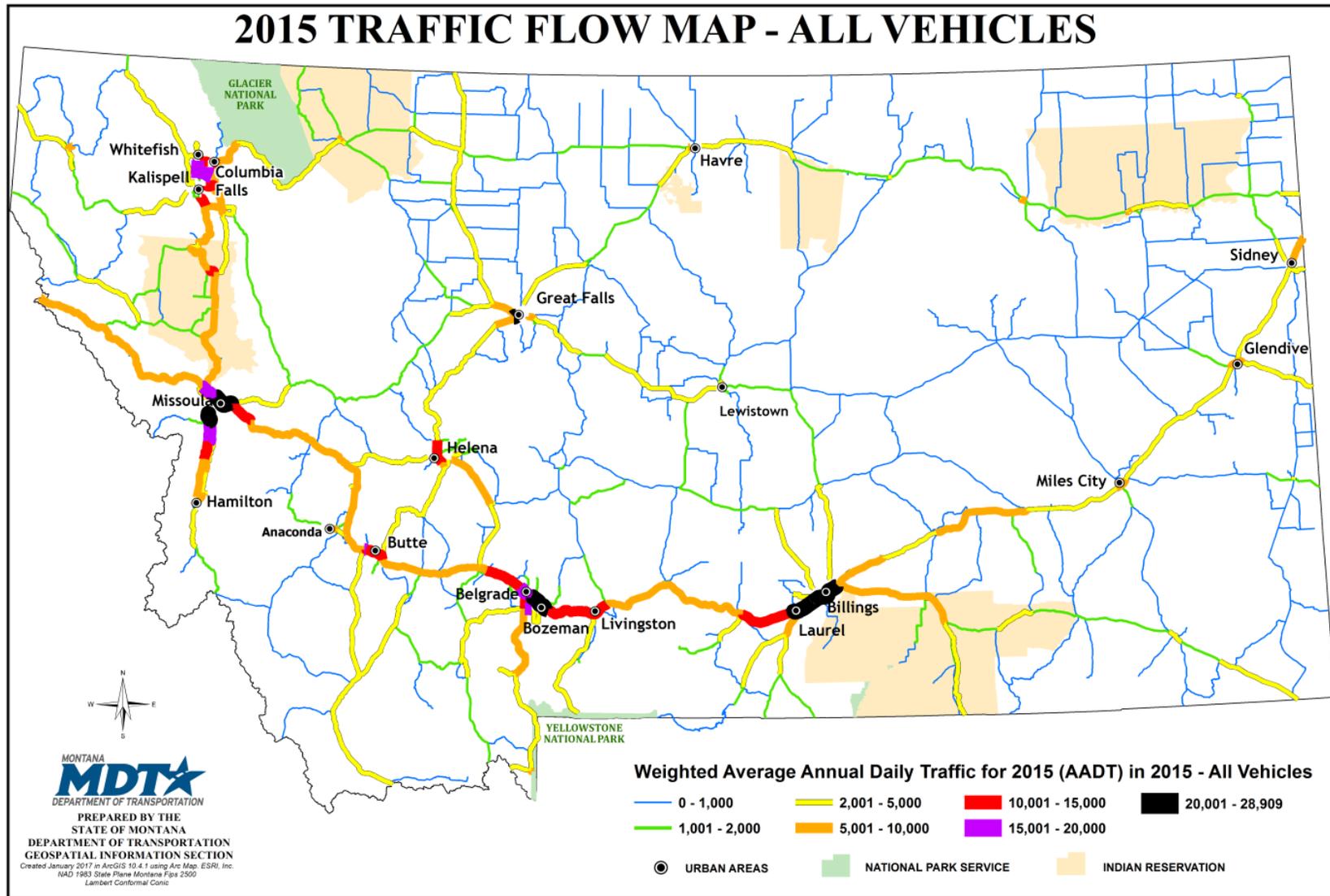
Driving

Transportation users rely heavily on Montana's roadway network to access employment, shopping centers, medical services, and education, as well as to move goods through and within the state. With Montana's low population density and large land mass, driving remains an essential mode of transportation for resident and nonresident users, similar to other rural regions in the western United States.

Miles of Travel

The greatest number of miles traveled by roadway users in Montana occur along Interstate routes including I-90, I-94, and I-15, on National Highway System (NHS) routes such as US 93 and US 2, and in proximity to Montana's largest urban and urbanized areas including Billings, Missoula, Bozeman, Kalispell, Great Falls, Helena, and Butte. Weighted average annual daily traffic (AADT) volumes for 2015 are illustrated in Figure 2.

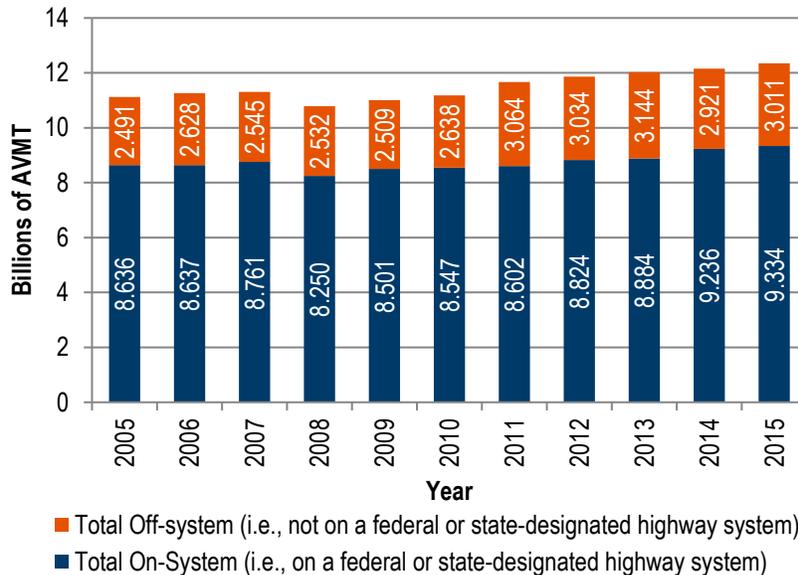
Figure 2: Traffic Flow in Montana, All Vehicles



Source: MDT Data & Statistics Bureau 2015.

Figure 3 illustrates annual vehicle miles traveled (AVMT) from 2005 to 2015 for on-system and off-system roadways. Apart from a slight decrease in 2008 associated with the Great Recession, the number of miles traveled in Montana has generally increased each year.

Figure 3: Statewide Annual Vehicle Miles of Travel



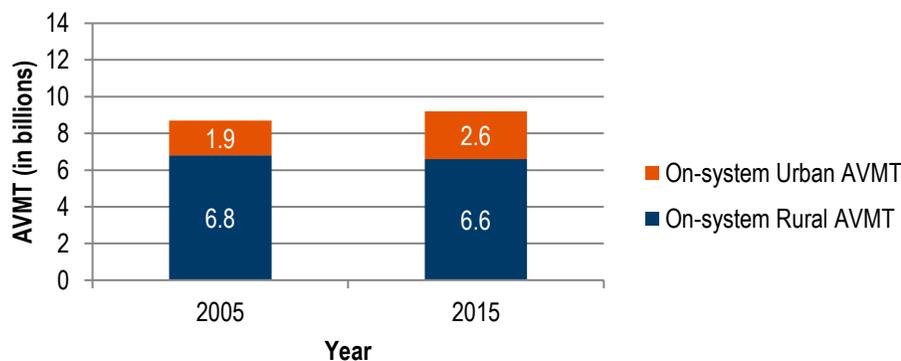
Source: MDT Data & Statistics Bureau 2015; DOWL 2017.

Figure 4 presents AVMT for on-system routes (i.e., on a federal- or state-designated highway system) in 2005 and 2015. Historically, more miles are traveled each year on rural roadways compared to urban roads. From 2005 to 2015, urban miles traveled grew as a percentage of the total miles traveled in the state, from 22 percent in 2005 to 28 percent in 2015. This is due in part to changes from the 2010 census, which resulted in several enlarged and newly designated urban areas.

-  **Urbanized**
Population of at least 50,000
-  **Small Urban**
Population of at least 5,000 but outside the boundaries of urbanized areas
-  **Rural**
Outside the boundaries of small urban and urbanized areas

Source: MDT 2010; DOWL 2017.

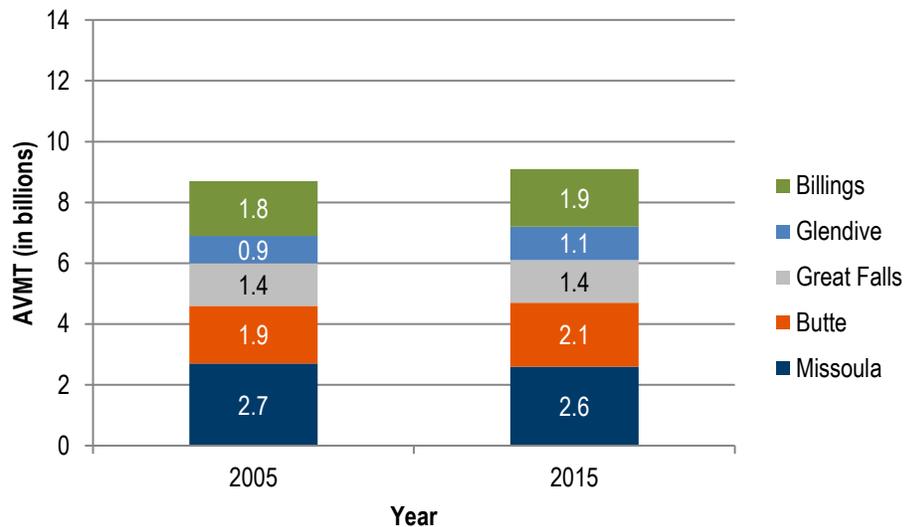
Figure 4: Historic On-System Urban/Rural AVMT



Source: MDT Data & Statistics Bureau 2015; DOWL 2017. Figure illustrates travel only for on-system routes. Part of the increase in urban volumes from 2005 to 2015 is due to changes from the 2010 census, which created larger boundaries for some existing urban areas and defined four new urban areas.

Figure 5 presents AVMT for on-system routes occurring within each MDT administrative district from 2005 to 2015. Historically, the largest number of miles traveled has occurred in the Missoula, Butte, and Billings districts, followed by the Great Falls and Glendive districts. However, the greatest rate of increase from 2005 to 2015 (calculated as a compound annual growth rate) occurred in the Glendive district as a result of oilfield traffic generated during the Bakken boom. During this time period, AVMT actually decreased in the Missoula district.

Figure 5: Historic On-System AVMT by MDT District

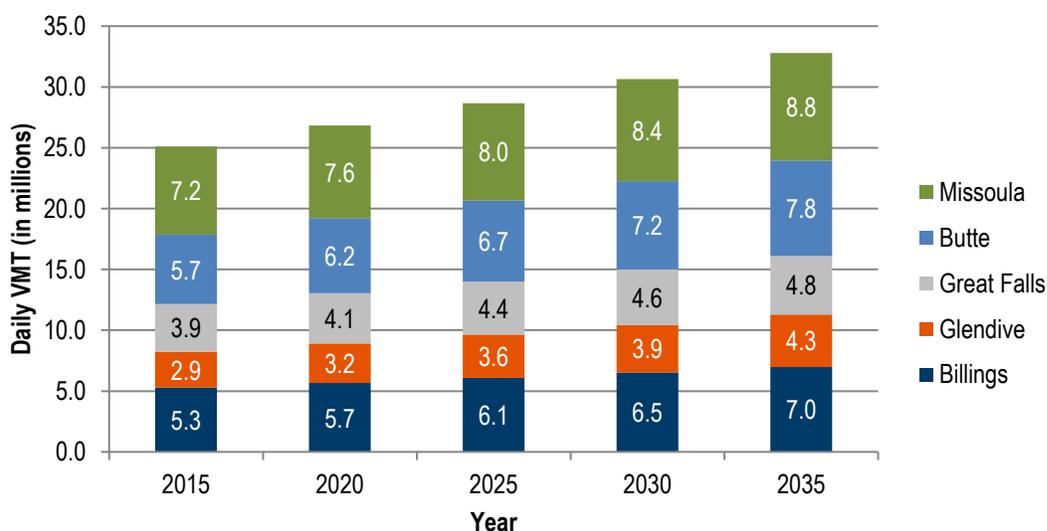


Source: MDT Data & Statistics Bureau 2015; DOWL 2017. Figure illustrates travel only for on-system routes.

Projecting future travel demand is challenging due to a variety of unknown variables such as population growth and aging, demand for goods and services, technologies enabling enhanced communication and flexible work schedules, changing mode choices, changes in land use and housing patterns, driving characteristics such as ridesharing, fuel prices, and other economic influences.

One method to project future traffic volumes uses historic growth rates applied to future years, assuming that future demand may reflect historic demand patterns. Figure 6 presents projected daily vehicle miles traveled (DVMT) for each MDT District through the 20-year planning horizon. These values were calculated by applying a compound annual growth rate derived from historic rates of growth from 1999 to 2015 ranging from 1.00 to 1.95 percent. Using this method, Montana could see travel volumes exceeding 30 million miles per day by 2035.

Figure 6: Projected On-System DVMT by MDT District



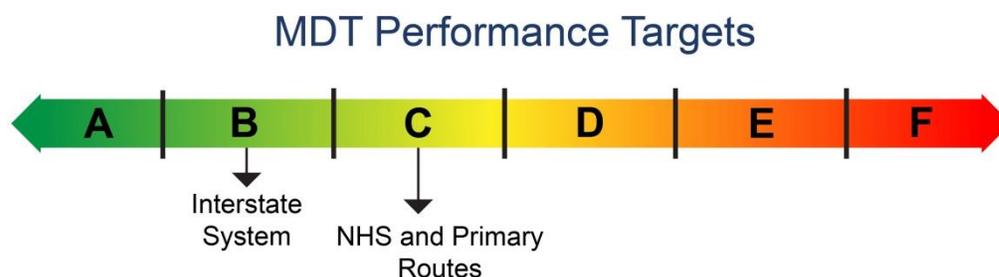
Source: MDT Data & Statistics Bureau 2015; DOWL 2017.

Another method is to model vehicle trips based on assumptions about how population, housing, and employment growth projections will affect travel demand. MDT maintains traffic models for several urban and urbanized areas throughout the state. These models are employed to develop specific traffic volume projections and identify needs for improvement projects.

Roadway Operations

The level of service (LOS) concept is a qualitative measure to describe the operational health of roadways from a driver perspective. Using rankings similar to a report card, LOS A represents the best operating conditions and LOS F represents the worst. The specific definitions for each range of operating conditions vary based on facility type. For a roadway segment, LOS A generally indicates full freedom to maneuver within the traffic stream while LOS F represents breakdown in traffic flow with roadways operating above capacity. Through its P3 process, MDT has defined performance targets for Montana highways (Figure 7). For the Interstate system, MDT has defined LOS B and above as an acceptable level for operations. Acceptable performance for NHS and Primary routes is defined as LOS C. In general, rural highways in Montana operate within desirable ranges.

Figure 7: MDT LOS Targets



Source: MDT Performance Programming Process 2012; DOWL 2017.

By contrast, urban roadways typically experience greater congestion levels. Many Montana communities have prepared long-range transportation plans to evaluate roadway congestion issues and identify potential solutions (see Appendix B). Approaches and reporting methods vary, but communities typically identify operational problems by mapping roadway segments and intersections operating at undesirable levels both in existing and projected future conditions. Some plans present more detailed information such as delay in seconds experienced by drivers at intersections, calculations indicating traffic volumes that have exceeded roadway capacity, or percentages of vehicle miles traveled, vehicle hours traveled, or lane miles considered to be congested.

MDT coordinates with local governments to identify and monitor locations throughout the state that fail to meet acceptable levels of service. This information helps MDT determine where improvements may be warranted based on system need, safety considerations, and available funding. Methods to address roadway operations may include limiting access to minimize conflict points, adjustments to signal timing, intersection improvements such as turn lanes, and capacity expansion by constructing additional roadway lanes.

Driving Safety

Safety is a central part of MDT's guiding mission. The department actively emphasizes safety through its programs and coordinated efforts with partners in education, enforcement, engineering, and emergency medical response. MDT has adopted *Vision Zero*: zero deaths and zero serious injuries for all users of Montana's transportation network.

MDT administers federal grant monies for traffic safety programs aimed at reducing deaths, injuries, and property losses resulting from traffic crashes. MDT collaborates with a number of other Montana agencies and works with a multidisciplinary team of statewide safety partners to improve traveler safety by assessing the most current crash data, evaluating safety priorities, and implementing safety strategies toward reaching *Vision Zero*.

Under Title 23 USC, states are required to complete a Strategic Highway Safety Plan (SHSP) in order to receive federal highway safety funding through the Highway Safety Improvement Program (HSIP). The SHSP should identify statewide highway safety problems and analyze opportunities to address them. In Montana, the SHSP is referred to as the *Montana Comprehensive Highway Safety Plan (CHSP)*. The Montana CHSP was first developed in 2006 and updated in May 2015 with a data-driven approach to meet *Vision Zero*: zero fatalities and serious injuries on Montana's roads. As outlined in the CHSP, Montana has committed to the goal of cutting traffic-related fatalities and serious injuries in half by the year 2030.

Whereas vehicular miles traveled increased steadily from 2006 to 2015, fatalities and serious injuries on Montana roadways decreased during this period, as presented in Figure 8. Despite some variability year to year, the five-year average of total statewide fatalities and serious injuries decreased by approximately one-third from 2006 to 2015. Although this is a positive trend, highway safety remains a challenge given improper driver behavior coupled with travel time to trauma centers, availability of emergency medical response, number of law enforcement officers, and higher travel speeds.

Figure 8: Montana Vehicular Fatalities and Serious Injuries



Source: MDT Grants Bureau 2015; DOWL 2017. Data labels indicate annual values for fatalities and serious injuries (not five-year average).

Each crash, injury, and fatality involves numerous overlapping factors relating to roadway infrastructure, driving populations, driving behaviors, and modes of transport. In developing the 2015 CHSP, MDT conducted a data analysis to determine the most common contributing factors involved in vehicular crashes resulting in serious injuries/fatalities. Based on this analysis, MDT identified the following three emphasis areas to focus safety resources, target safety strategies, and apply implementation steps.

Roadway Departure/Intersection Crashes

Roadway departure crashes historically have been involved in the largest percentage of fatalities and serious injuries in Montana compared to other contributing factors. These crashes are typically more severe because of high speeds and predominantly rural locations. From 2006 to 2015, the total number of fatalities and serious injuries resulting from roadway departure crashes decreased by nearly one-third, as presented in Figure 9. The five-year average decreased steadily from 2006 to 2011 and plateaued from 2012 to 2015.

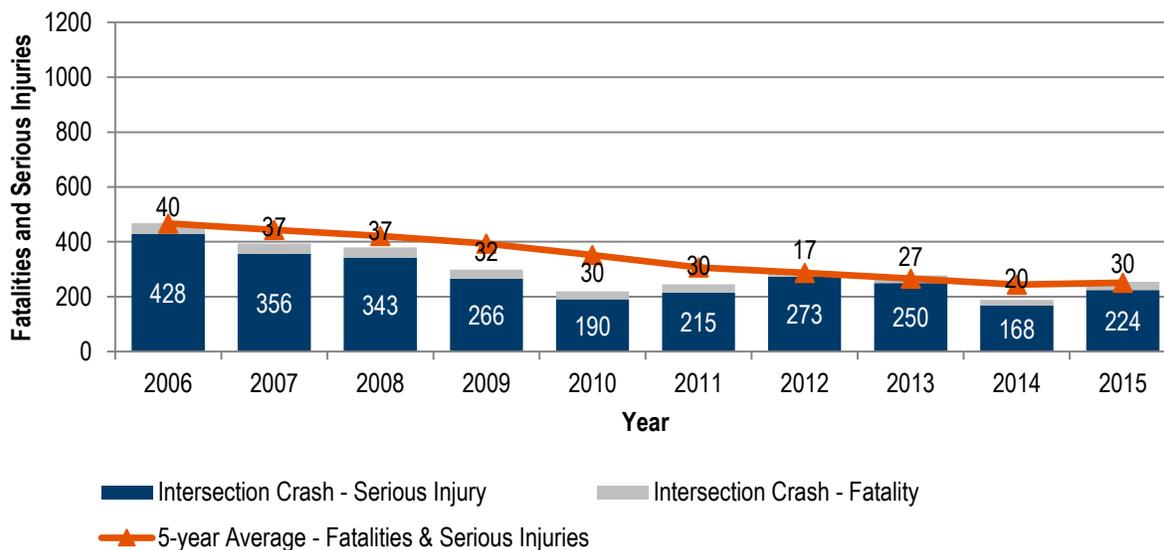
Figure 9: Roadway Departure Crashes – Fatalities and Serious Injuries



Source: MDT Grants Bureau 2015; DOWL 2017. Data labels indicate annual values for fatalities and serious injuries (not five-year average).

Intersection involvement is a top contributing factor in total crashes in Montana, although it constitutes a smaller percentage of total statewide fatalities and serious injuries. These crashes typically are more evenly split between rural and urban locations compared to roadway departure crashes. Figure 10 illustrates fatalities and serious injuries associated with intersection crashes, which decreased from 2006 to 2015.

Figure 10: Intersection Crashes – Fatalities and Serious Injuries



Source: MDT Grants Bureau 2015; DOWL 2017. Data labels indicate annual values for fatalities and serious injuries (not five-year average).

The 2015 CHSP identifies several strategies to achieve the objective of reducing fatalities and serious injuries associated with roadway departure/intersection crashes. These include data-driven problem identification, use of best practices, focus on reducing excessive speeds, educational efforts, enforcement in high-crash corridors and locations, focus on behavioral factors, and prosecution/adjudication of user violations.

Impaired Driving

Impaired driving is another leading factor in fatalities and serious injuries in Montana. Alcohol and drug use adversely affect driver judgment, visual function, muscle control, concentration, and reaction time. As a result, drivers are unable to respond to changing driving conditions due to weather events, roadway conditions, obstacles, and other vehicles. Figure 11 illustrates a declining trend in impaired driving fatalities and serious injuries from 2006 to 2011 and a plateau from 2012 to 2015.

Figure 11: Impaired Driver Involved – Fatalities and Serious Injuries



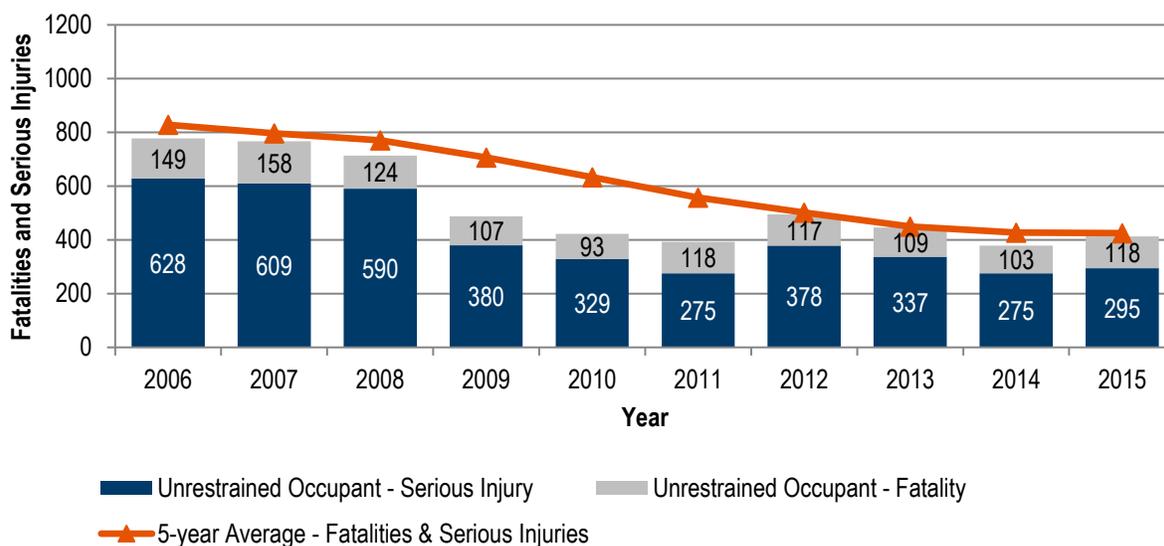
Source: MDT Grants Bureau 2015; DOWL 2017. Data labels indicate annual values for fatalities and serious injuries (not five-year average).

The objective for this emphasis area is to reduce fatalities and serious injuries associated with impaired driver crashes. The 2015 CHSP identifies improved process and regulations, enforcement, prevention education, and collaborative partnership strategies to achieve this objective.

Unrestrained Occupant

Each year, people die or are seriously injured on Montana's roadways due to failure to wear a seatbelt or properly restrain passengers. Wearing a seatbelt is the single most effective measure to keep occupants inside the vehicle and thereby protect against bodily injury. The 2015 CHSP notes that unrestrained occupants are almost six times more likely to die or suffer a serious injury from a vehicular crash compared to people wearing a seatbelt. As illustrated in Figure 12, substantial progress was made in reducing unrestrained occupant fatalities and serious from 2006 to 2013. However, the five-year average plateaued in 2014 and 2015.

Figure 12: Unrestrained Occupant – Annual Fatalities and Serious Injuries



Source: MDT Grants Bureau 2015; DOWL 2017. Data labels indicate annual values for fatalities and serious injuries (not five-year average).

The 2015 CHSP identifies several strategies to achieve the objective of reducing fatalities and serious injuries associated with lack of or improper occupant protection. These include policies, education, training, programs, and activities to increase seat belt and child safety seat use; enforcement of existing laws; collaborative partnerships; and evaluation of the effectiveness of current messaging, campaigns and programs.

Non-motorized Transportation

Bicycling and walking make up approximately six percent of work trips in Montana, according to 2011-2015 mode-to-work census data. MDT recognizes the importance of providing facilities for bicycling and walking to increase mobility and accessibility, enhance safety, as well as to cultivate an environment in which non-motorized transportation modes are recognized as a valuable component of transportation choice for Montana residents and visitors.

Montana has developed multiple policies and follows regulations that relate to bicycle and pedestrian travel. MDT works with local jurisdictions to improve pedestrian and bicycle facilities and assure all modes are considered in the planning and design processes. Through an established state-level bicycle and pedestrian program, MDT offers a variety of informational sources to the public to educate on non-motorized transportation on and adjacent to Montana roadways including safety tips, maps, regulations, applicable laws, and training.

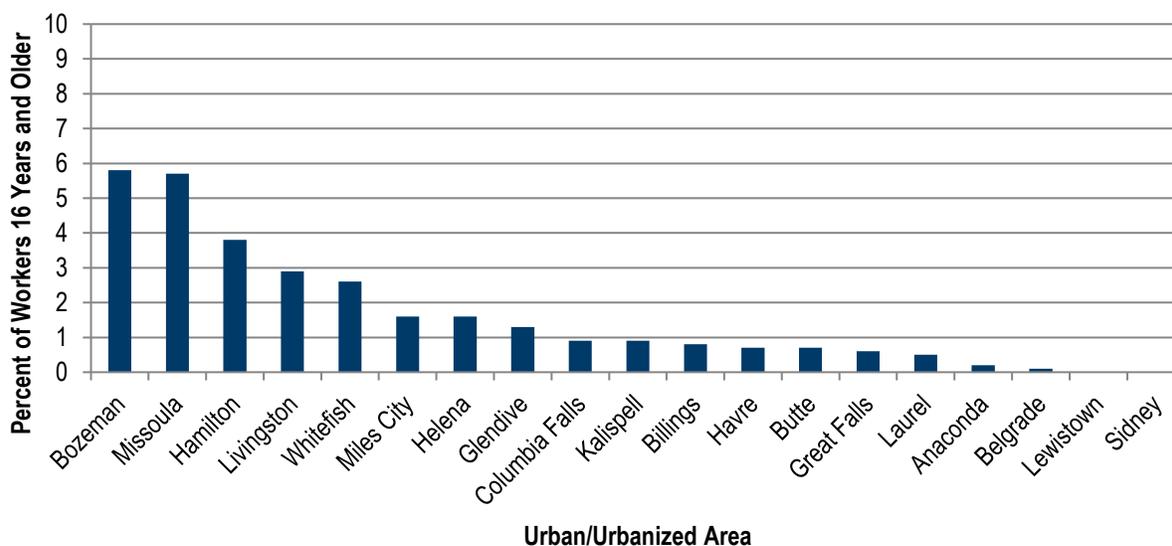
Usage and Demand

MDT does not collect usage data regarding bicycle and pedestrian volumes on Montana’s roadways. Municipalities and local jurisdictions may collect this data as part of non-motorized or urban area transportation planning efforts, but historic and current data is lacking in many locations and not easily obtained.

The journey-to-work data compiled by the Census Bureau provides a statewide overview of modal choice for work trips only. The data presented at the beginning of this chapter suggests bicycle and pedestrian use is relatively low at the statewide level; however, non-motorized transportation rates vary substantially across the state. The United States Census compiles journey-to-work data by urban area. Urban areas as defined by the Census are determined by analysis of census tracts and blocks in conjunction with population density tolerances. The following figures present journey-to-work data by Census-defined urban areas greater than 5,000 people. Figure 13 displays journey-to-work data for Montana urban areas by percentage of workers that bicycle to work. Bozeman, Missoula, and Hamilton have the highest percentages of workers that bicycle to work. The percentages of workers that walk to work are depicted in Figure 14. The communities of Lewistown, Bozeman, and Whitefish reflect the highest percentages of workers walking to work among Montana urban areas.

Many factors can influence non-motorized transportation rates such as the size of the community, traffic volumes and the adequacy of existing facilities. For example, some communities have more developed non-motorized transportation networks than others, making walking and biking more feasible and safe. Additionally, walking to work may be more achievable in cities with college campuses and in smaller communities where employment centers are within walking distance. Socioeconomic factors such as age, ability, and income also influence mode choice. MDT considers a wide range of local factors when planning for bicycle and pedestrian improvements and works with local jurisdictions following a Context Sensitive Solutions approach in project development.

Figure 13: Mode to Work by Bicycle



Source: U.S. Census Bureau 2011-2015 American Community Survey 5-year Estimates; DOWL 2017.

Figure 14: Mode to Work by Walking

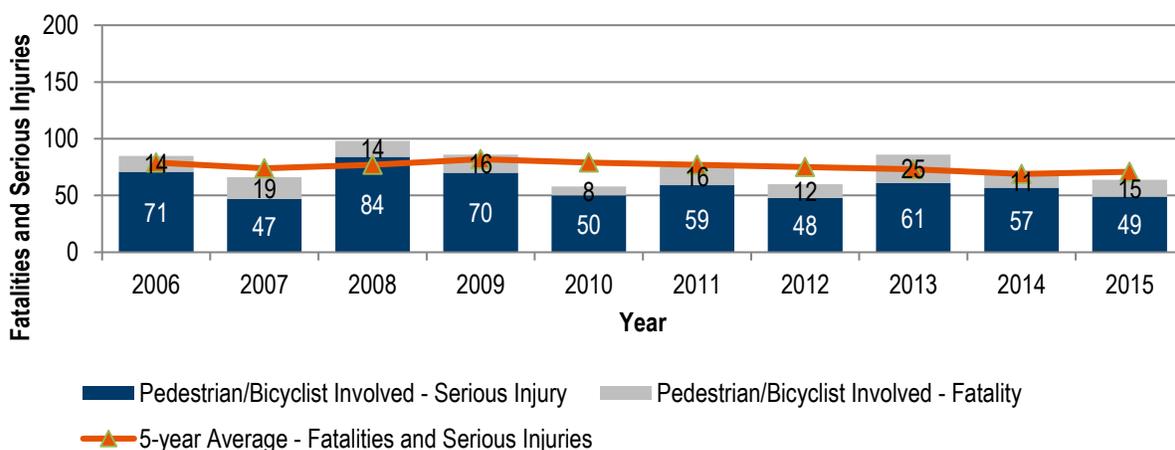


Source: U.S. Census Bureau 2011-2015 American Community Survey 5-year Estimates; DOWL 2017.

Pedestrian and Bicycle Safety

Collision data collected by the Montana Highway Patrol includes statistics on bicycle and pedestrian crashes by severity. Figure 15 indicates the total number of fatalities and serious injuries involving cyclists or pedestrians between 2006 and 2015. As shown in the figure, the average number of pedestrian and bicyclist fatalities and serious injuries has remained roughly between 70 and 80 during this time.

Figure 15: Bicycle/Pedestrian Crashes – Fatalities and Serious Injuries

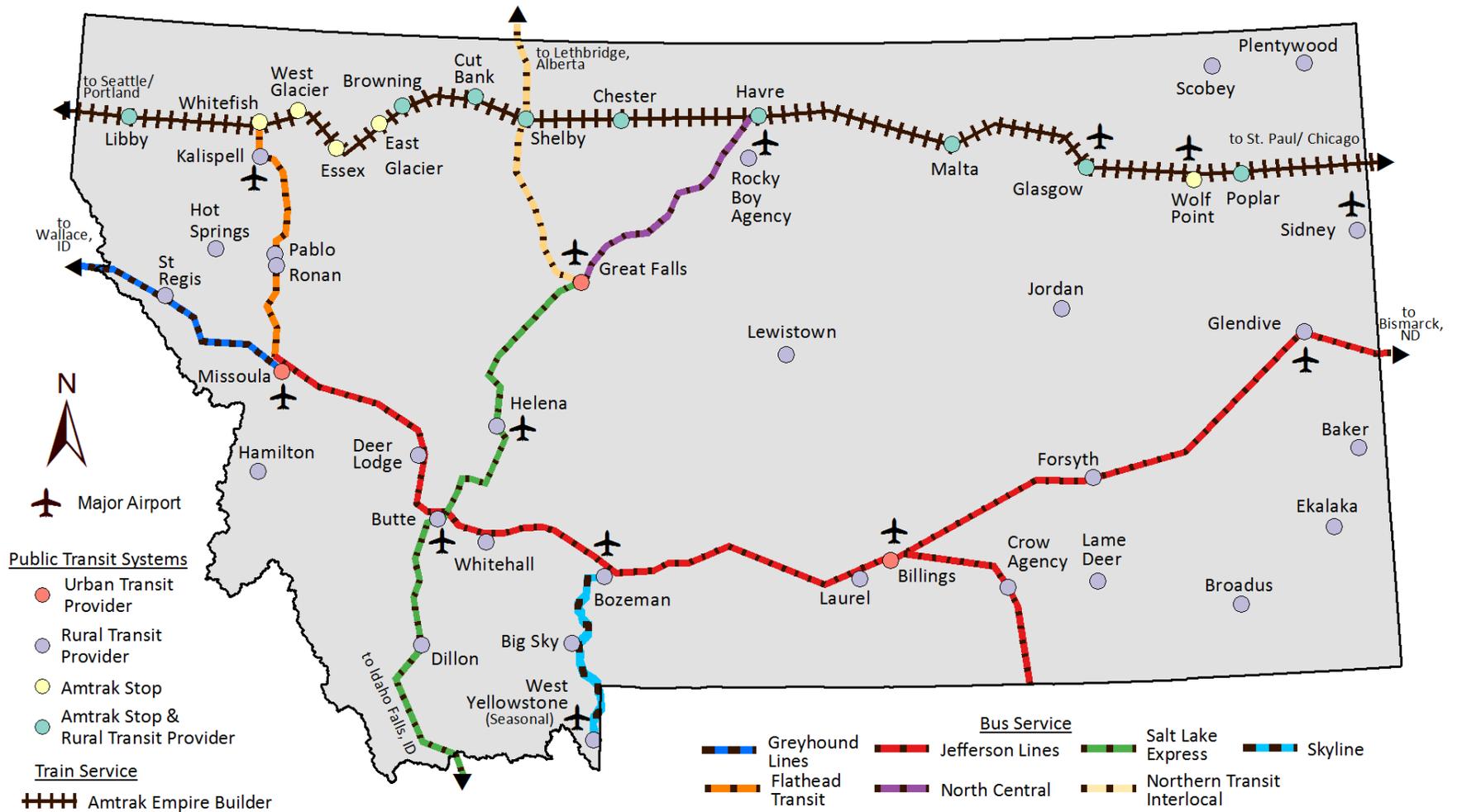


Source: MDT Grants Bureau 2015; DOWL 2017. Data labels indicate annual values for fatalities and serious injuries (not five-year average).

Public Transportation

Public transportation users in Montana access transit services through rural and urban bus systems, passenger rail, demand response vehicles, vanpools, carpools, and passenger air service. Figure 16 provides an overview of the passenger transit system in Montana.

Figure 16: Public Transportation in Montana



Source: MDT Data & Statistics Bureau 2015.

Rail

MDT plays a limited role in passenger rail with no dedicated funding or authority over the railroad provider (Amtrak). However, MDT does facilitate rail preservation and crossing safety improvements and incorporates passenger rail into the statewide rail plan.

Passenger rail is limited to the Empire Builder operated by Amtrak. This primarily east-west rail corridor operates daily long-distance service through the northern portion of the state and includes service to 12 stations within Montana. With limited public transportation options across Montana's Hi-Line, Amtrak's intercity passenger rail service provides a critical transport function. The Empire Builder line also provides connections outside of the state including direct service to St. Paul and Chicago to the east and Seattle and Portland to the west.

Passenger Rail Ridership

In 2015, Amtrak's Empire Builder recorded 115,950 boardings and alightings in Montana, with the Whitefish station accounting for 43 percent of those passengers.

The *Montana State Rail Plan* (2010) summarizes efforts to fund and expand passenger rail service. Amtrak conducted a study of potential Montana rail service expansion in 2010



that analyzed two routes in southern Montana connecting Billings and Missoula or a longer corridor that extends from Williston, North Dakota, to Sandpoint, Idaho. If a southern route were pursued and federal funding were available, non-federal funding would likely be required for planning and capital development in addition to ongoing operational costs of any new service.

Air

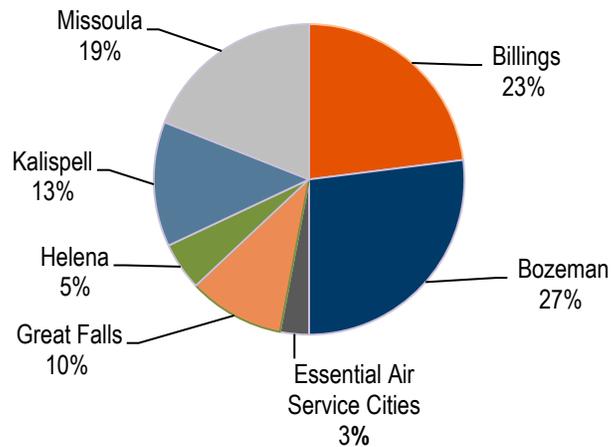
The MDT Aeronautics Division is responsible for the protection and promotion of safety in aeronautics and facilitates the maintenance of airports and airport infrastructure.

The state's aviation system includes 124 public-use airports. Thirteen of these public-use airports provide scheduled commercial service and are dispersed throughout the state; seven of these are subsidized by the Essential Air Service Program, which provides scheduled air service to communities that would otherwise have limited access to the nation's passenger air system.

Airport Enplanements and Boarding

As illustrated in Figure 17, Bozeman Yellowstone International Airport had the highest percentage of enplanements in 2015, followed by Billings Logan International, Missoula International, Kalispell Glacier Park International, and Great Falls International. Enplanements at these top five airports accounted for over 90 percent of all enplanements.

Figure 17: Montana Enplanements by Percentage



Source: MDT Airport/Airways Bureau 2015; DOWL 2017.

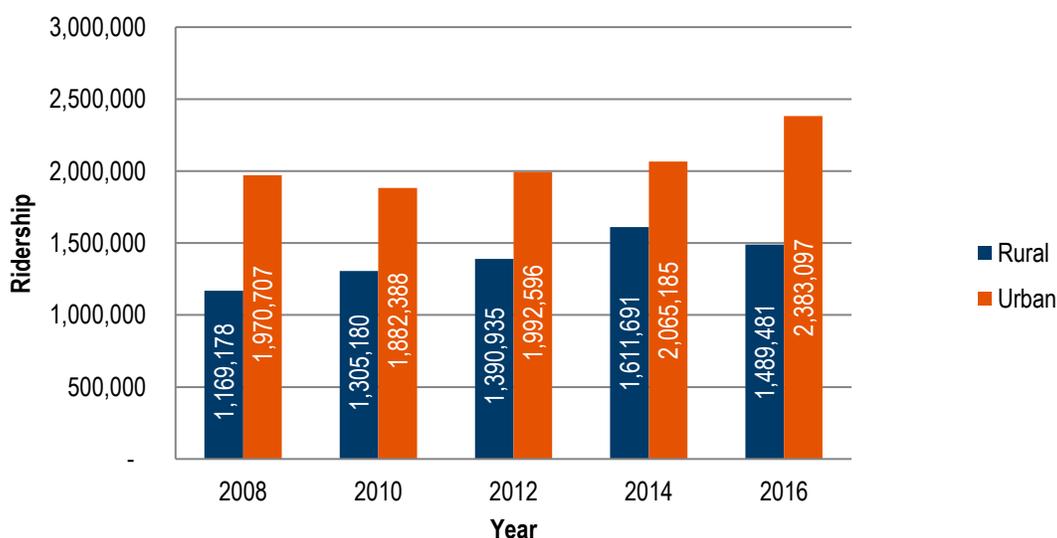
Urban and Rural Bus Systems

Bus Ridership

MDT provides funding and support to transit systems across the state by administering federal and state grants to help provide transit to rural areas and to make capital investments. Funding levels are based on ridership levels, mileage, and prior year expenditures of federal funds.

Urban and rural transit systems have increased in ridership over the past several years, with the urban transit system ridership surpassing two million in 2012 and continuing an upward trend through 2016. Rural system ridership increased steadily between 2008 and 2014, with a decline in overall ridership to approximately 1.5 million in 2016, as shown in Figure 18.

Figure 18: Annual Transit Ridership

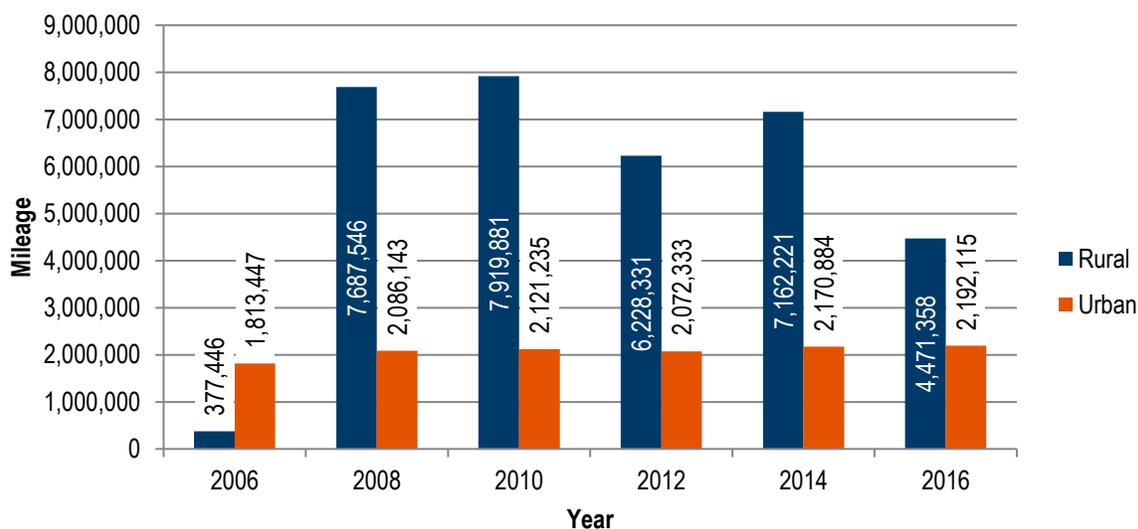


Source: MDT Grants Bureau 2016; DOWL 2017. Data reflect only general public transport (not transport provided by elderly and disabled agencies). Small urban for transit purposes is described by the Federal Transit Administration as having a population between 50,000 and 200,000.

Service Miles

In terms of service provided, the urban transit system has remained relatively flat over the last several years at approximately two million miles. The rural system has experienced more variability, decreasing from just less than 8 million miles in 2010 to just over four million miles in 2016 as illustrated in Figure 19. Rural routes operate on a demand/response basis, resulting in more variability than urban fixed routes.

Figure 19: Annual Transit Mileage



Source: MDT Grants Bureau 2016; DOWL 2017. Small urban for transit purposes is described by the Federal Transit Administration as having a population between 50,000 and 200,000. Note methodology change: Data for 2006-2014 reflect general public transport in addition to transport provided by specialized elderly and disabled agencies; 2016 data reflect only general public transportation systems (accounting for the decrease in rural mileage).

Public Transportation Safety

MDT has minimal authority over public transportation providers including passenger rail, commercial air service, or rural transit and intercity bus services. Public transportation providers are governed by federal agencies that oversee and implement a variety of applicable safety programs. MDT's level of involvement varies by provider but generally involves oversight to assure compliance with federal safety regulations and administering federal funding. The MDT Aeronautics and Rail, Transit and Planning Divisions offer a variety of training and educational programs to providers in an effort to enhance public transportation safety. MDT monitors incident occurrences and works with providers to minimize or eliminate known safety concerns.

Freight

The ability to move goods safely and efficiently across the state of Montana is a critical component of the transportation network. Effective freight movement is key to economic prosperity both for the state and for the nation. Pipelines, air travel, and rail facilities reduce the volume of freight moved on Montana's highways. MDT recognizes that each of the major freight modes - rail, truck, pipeline, and air - need to be properly accommodated, including connections to intermodal facilities that allow goods to move from one mode to another.

Governing Framework

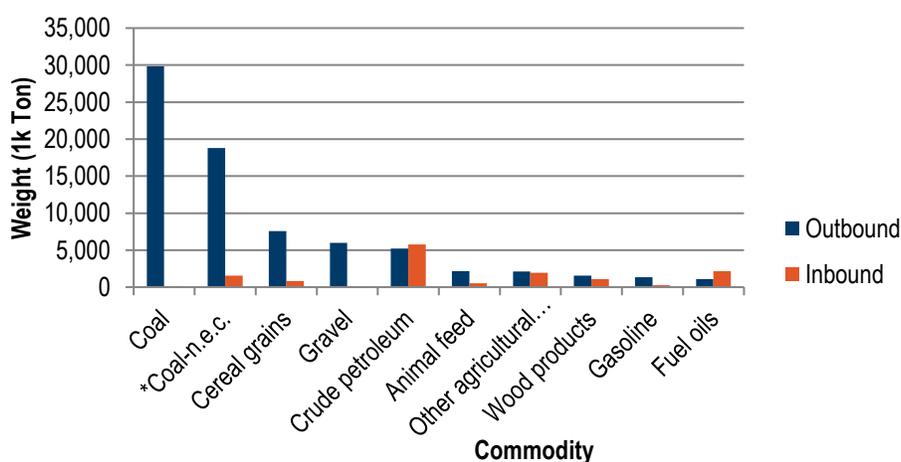
The Fixing America's Surface Transportation (FAST) Act established a new National Highway Freight Network (NHFN). The Act also created a new program to improve freight movement on the NHFN. National Highway Freight Program (NHFP) funds must be used to contribute to the efficient movement of freight on the NHFN and be identified in a freight investment plan included in the State's freight plan, which is required to be completed by each state by the end of 2017.

MDT's Motor Carrier Services (MCS) Division is charged with protecting the highway network and ensuring safety for users through uniform regulation of the commercial motor carrier industry. The division also enforces all state and federal commercial motor carrier laws, rules, and regulations; is responsible for the state's commercial motor vehicle and driver safety, licensing, registration, and oversize/overweight permit program, including managing the automated web-based permitting system. Chapter 18.8 of the *Administrative Rules of Montana* sets regulations and policies for the MCS, including safety permitting, and credentialing of commercial motor vehicles.

Freight Commodities

Montana's top commodity exports and imports are summarized in Figure 20 and Figure 21 by weight and value, respectively. Coal and other natural resource goods like petroleum and oil are among the biggest exports by weight and value, along with cereal grains. The largest import commodities by value include machinery, crude petroleum, manufacturing products, and field oils.

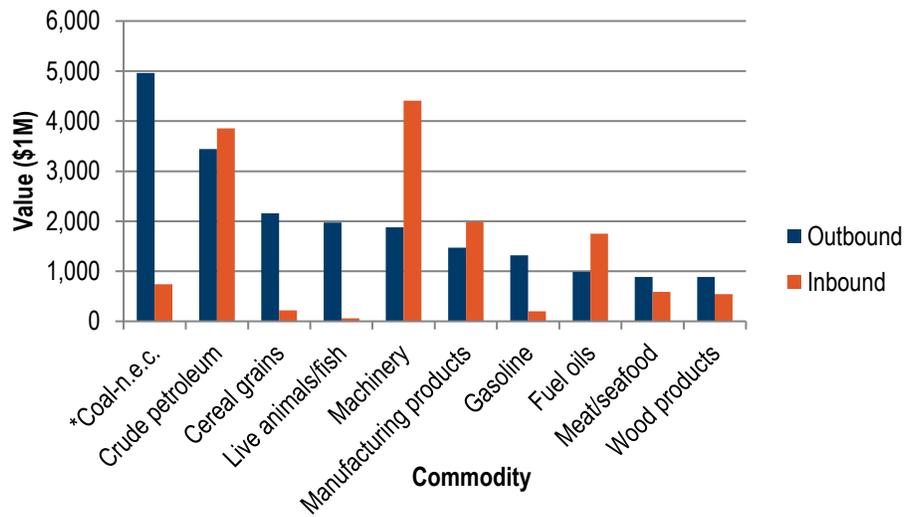
Figure 20: Outbound/Inbound Commodities by Weight



*In Standard Classification of Transported Goods (SCTG), **Coal-n.e.c.** stands for "Other Coal and Petroleum Products, not elsewhere classified." This category includes lubricating oils and greases and other refined petroleum oils and oils obtained from bituminous minerals, not elsewhere classified.

Source: Freight Analysis Framework Data Tabulation Tool (FAF4) 2015; Fehr & Peers 2017; DOWL 2017.

Figure 21: Outbound/Inbound Commodities by Value



*In Standard Classification of Transported Goods (SCTG), **Coal-n.e.c.** stands for “Other Coal and Petroleum Products, not elsewhere classified.” This category includes lubricating oils and greases and other refined petroleum oils and oils obtained from bituminous minerals, not elsewhere classified.

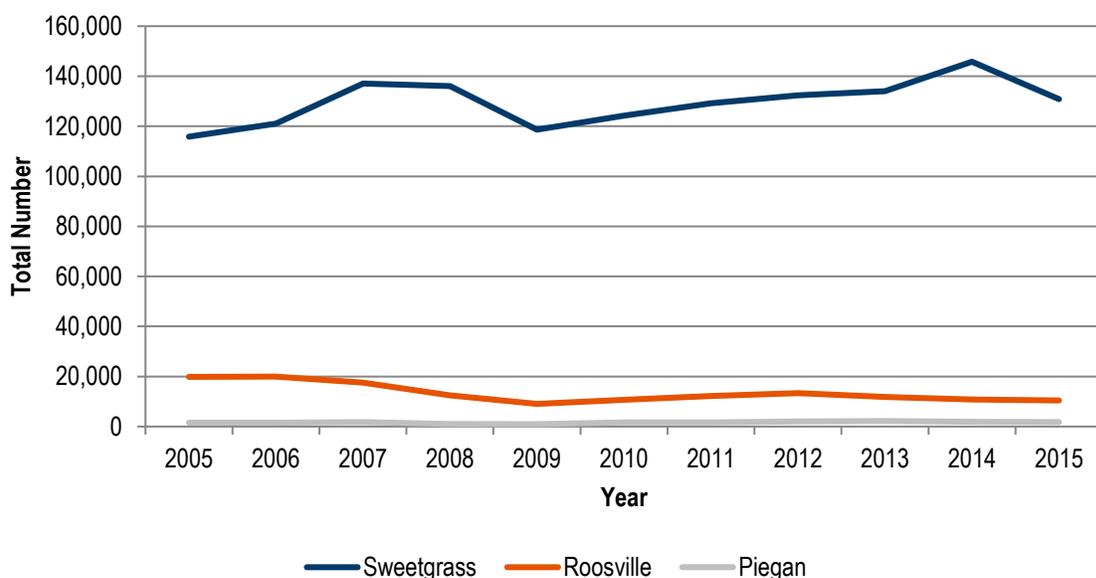
Source: Freight Analysis Framework Data Tabulation Tool (FAF4) 2015; Fehr & Peers 2017; DOWL 2017.

Domestic freight exports leaving Montana are primarily destined for North Dakota, Washington, Minnesota, Idaho, and Wyoming. Domestic freight coming into Montana primarily originates in Idaho, Colorado, Utah, and Florida.

In addition to domestic trading partners, Montana has thirteen border crossings with Canada. The Sweetgrass (I-15), Roosville (US-93), and Piegan (US-89) crossings are major freight connections, providing import/export links to the international market. The border crossings with Canada are an important component of Montana’s freight network and international trade for the nation.

Of the major freight truck border crossings, the Sweetgrass crossing has continually had the highest number of crossings, as shown in Figure 22.

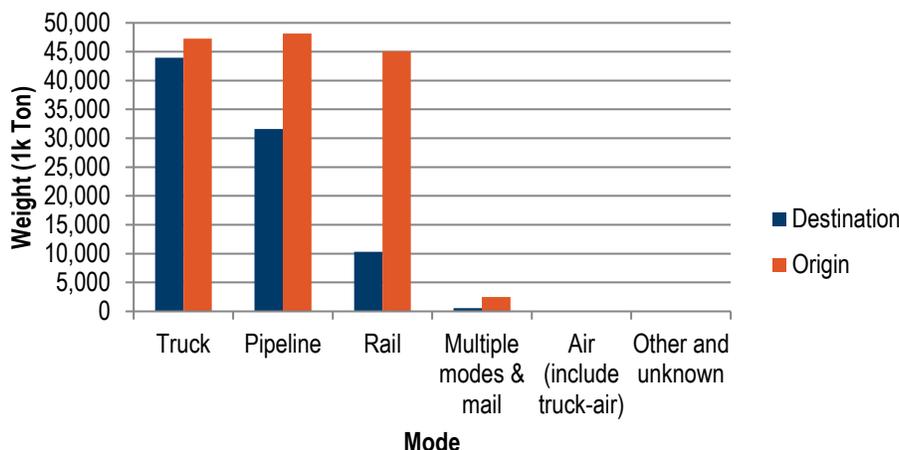
Figure 22: Montana Truck Border Crossings



Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, based on data from the Department of Homeland Security, U.S. Customs and Border Protection, Office of Field Operations, Fehr & Peers 2016; DOWL 2017.

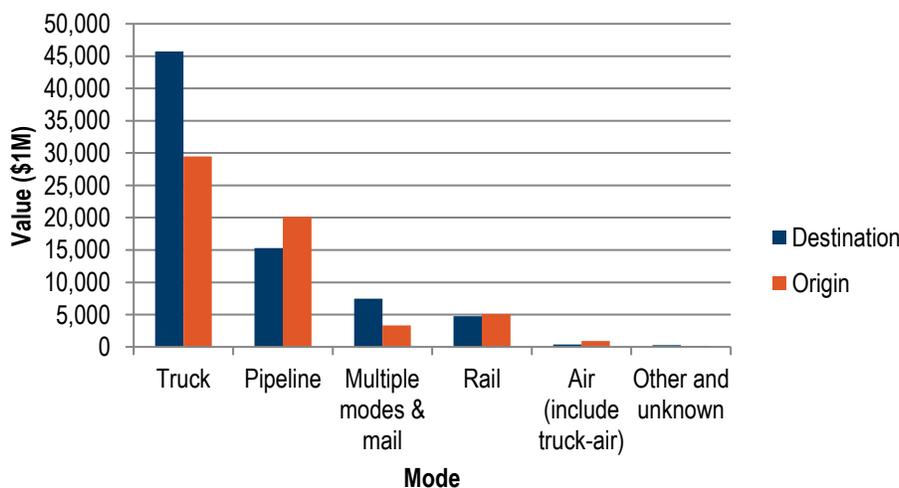
Figure 23 and Figure 24 show a comparison of the tonnage and value of shipments originating and terminating in Montana by different modes. While pipelines carry a substantial component of the commodities originating in Montana by weight, trucks carry the most non-pipeline commodities, both in terms of weight and value.

Figure 23: Outbound/Inbound Modes by Weight



Source: Freight Analysis Framework Data Tabulation Tool (FAF4) 2015; Fehr & Peers 2016; DOWL 2017. Note: Multiple modes and mail category includes shipments by multiple modes and by parcel delivery services, U.S. Postal Service, or couriers. This category is not limited to containerized or trailer-on-flatcar shipments.

Figure 24: Outbound/Inbound Modes by Value

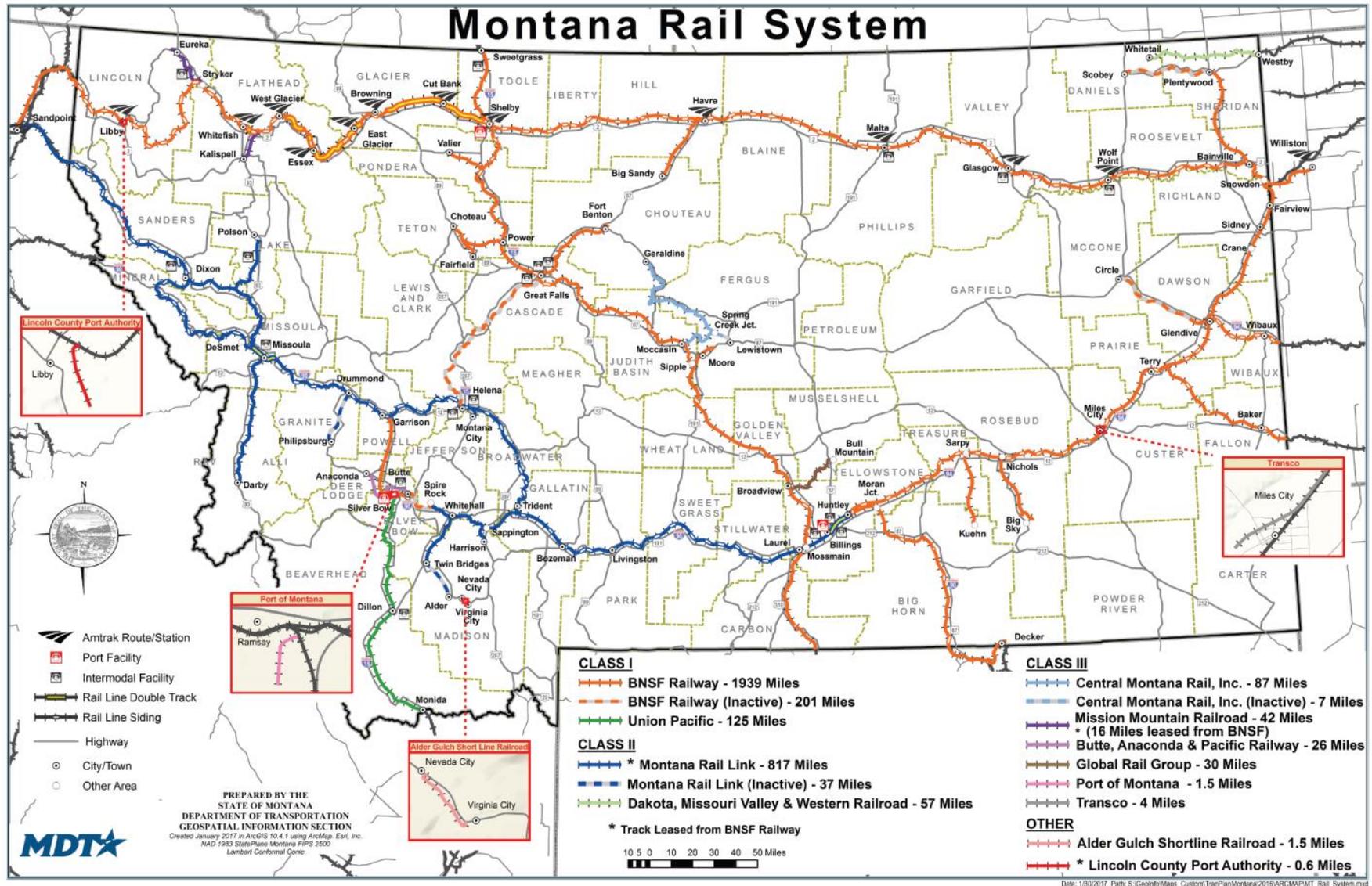


Source: Freight Analysis Framework Data Tabulation Tool (FAF4) 2015; Fehr & Peers 2016; DOWL 2017. Note: Multiple modes and mail category includes shipments by multiple modes and by parcel delivery services, U.S. Postal Service, or couriers. This category is not limited to containerized or trailer-on-flatcar shipments.

Rail Freight

Montana has a mix of Class I, II, and III railroads that operate on approximately 3,130 miles of active mainline rail track, as illustrated in Figure 25.

Figure 25: Montana Rail System

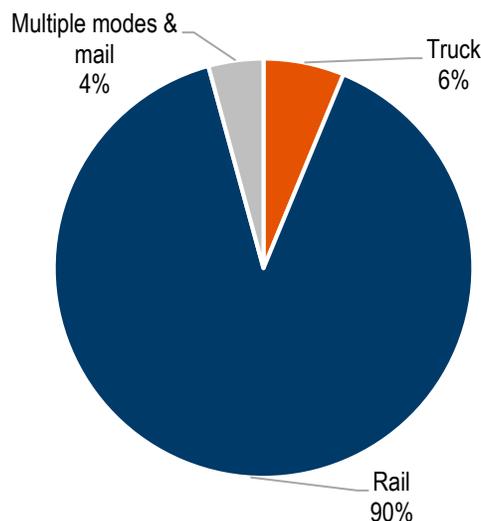


Source: MDT Data & Statistics Bureau 2015.

Currently, there are two major rail ports in the state - the Port of Montana located outside of Butte and the Port of Northern Montana in Shelby.

While trucks carry the majority of non-pipeline commodities, as shown in Figure 26, rail is a key freight mode for coal shipments.

Figure 26: Coal Mode of Transport



Source: Freight Analysis Framework Data Tabulation Tool (FAF4) 2015; Fehr & Peers 2016; DOWL 2017. Note: Multiple modes and mail category includes shipments by multiple modes and by parcel delivery services, U.S. Postal Service, or couriers. This category is not limited to containerized or trailer-on-flatcar shipments.

The *Montana State Rail Plan (2010)* provides the most recent data available describing freight trends in the state and operating/system characteristics of the existing freight rail system. The plan also provides an analysis of impacts of grain car consolidation facilities. Potential funding programs are addressed to improve intermodal rail facilities and equipment. The plan identifies the following trends.

- Through trips make up the largest share of rail freight moved through Montana both by tonnage and revenue.
- By 2035 total freight tonnage in Montana is projected to increase by 101 percent to 216.8 million tons.
- Truck shipments will continue to account for the largest share of within-state tonnage, followed by rail shipments.
- Rail is expected to account for 81 percent of exports from the state in 2035.
- Forecast population growth (greater than 60 percent from 2005 to 2030 in some counties) will increase the size of local consuming markets in Montana.
- Between 2000 and 2006 the size of the rail network reduced from 3,344 to 3,270 miles.
- Grain shuttle facilities are increasingly important in the distribution of Montana grain. Larger, more centralized shuttle facilities are shifting demand. This has led to a reduction in the number of grain elevators available to grain producers from 189 in 1984 to 121 in 2006.

There is limited rail competition in Montana due to industry consolidation and mergers over the years. As such, shippers have few options to moderate rail rates, car availability, and services.

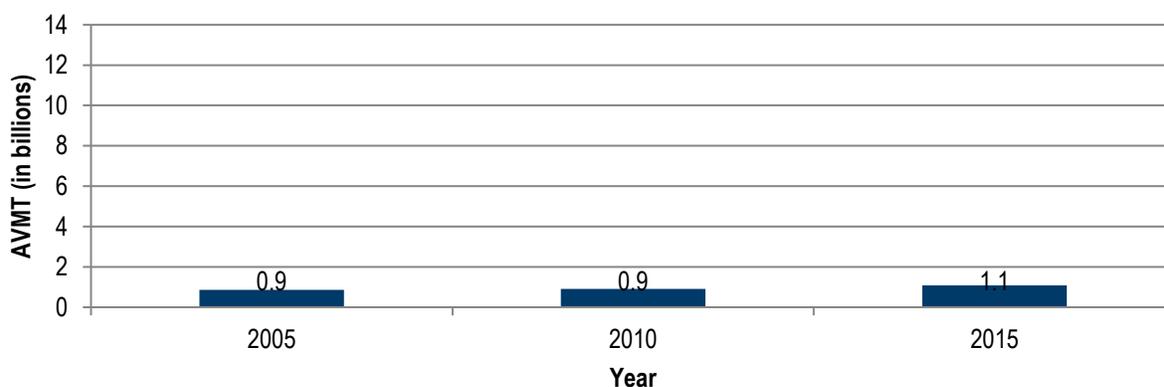
Legislative efforts have worked to analyze possibilities to improve rail freight competition; however, other factors contribute to limited rail service in Montana such as the relatively small transportation market, distance from West Coast and Midwest markets, and limited freight transportation options other than rail. Trucking distances in Montana are long, and there are no waterway barge options. Laws have attempted to modify economic regulation procedures in an effort to reduce rates or increase competition. Federal rail studies recognize that additional attention may be needed to offer reasonable rates in states such as Montana with limited modal alternatives and geographic limitations.

Montana could experience potential capacity concerns by the year 2035 without rail infrastructure improvements on several of Montana's primary rail lines. Federal issues and policies that continue to emerge and have the potential to affect rail freight in Montana include expanded funding programs for freight rail improvements and changes in energy policies or in fuel prices.

Commercial Vehicles

Commercial travel has steadily increased since 2005, reaching nearly 1.1 billion miles traveled annually in 2015 (Figure 27).

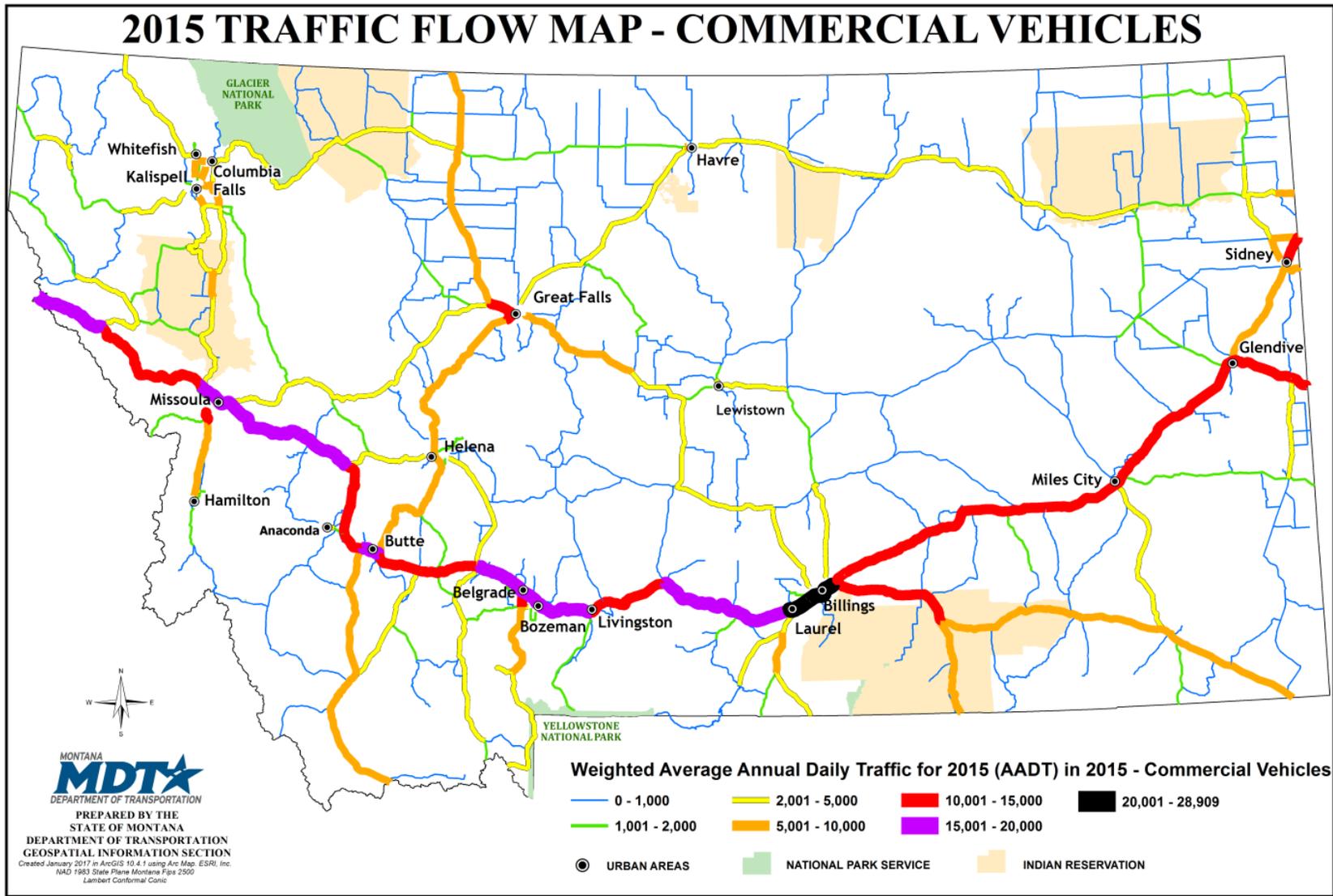
Figure 27: Commercial AVMT



Source: MDT Data & Statistics Bureau 2015; DOWL 2017. Figure illustrates commercial travel only for Primary, NHS, and Interstate routes.

Figure 28 illustrates commercial truck volumes on Montana roadways. The interstate routes of I-90, I-94, and I-15 carry the largest number of commercial vehicles.

Figure 28: Commercial Vehicle Flows



Source: MDT Data & Statistics Bureau 2015.

Table 1 provides all-vehicle and commercial vehicle traffic volumes, stratified by system.

Table 1: Commercial Vehicle Volumes

| System Type | All Vehicles (AADT) | Commercial Vehicles (AADT) | % Commercial Vehicles |
|-------------|---------------------|----------------------------|-----------------------|
| Interstate | 7,055 | 1,491 | 21% |
| NHS | 3,179 | 297 | 9% |
| Primary | 1,070 | 110 | 10% |
| Secondary | 407 | 29 | 7% |
| Urban | 5,529 | 136 | 2% |

Source: MDT Traffic by Sections Report 2015, accessed at http://mdt.mt.gov/publications/datastats/traffic_reports.shtml; Fehr & Peers 2016; DOWL 2017.

Trucking Safety

In 2015, crashes involving large vehicles comprised approximately six percent of all statewide crashes, 10 percent of statewide fatalities, and seven percent of statewide injuries. The combined number of fatalities and serious injuries resulting from crashes involving large vehicles trended downward from 2006 to 2015, as illustrated in Figure 29.

Figure 29: Fatalities and Serious Injuries - Large Vehicle Involved

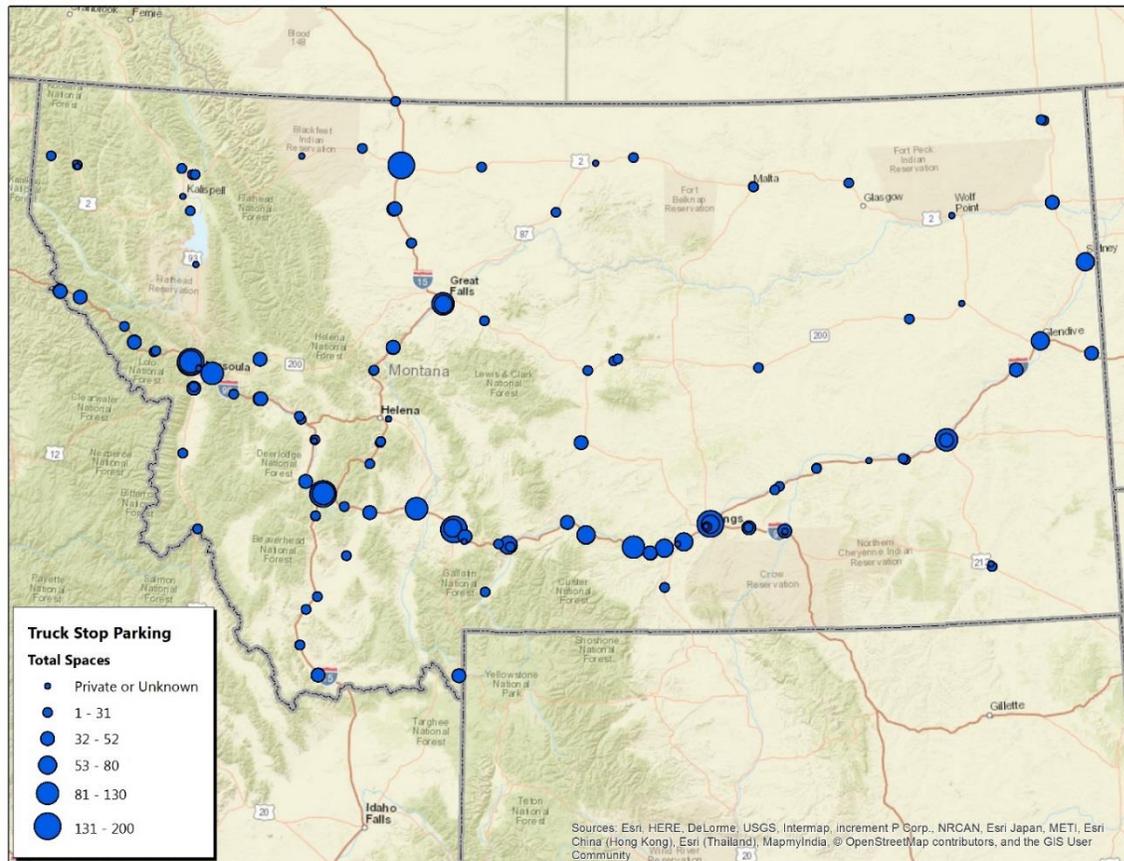


Source: MDT Traffic Safety Problem Identification Data, <http://www.mdt.mt.gov/publications/datastats/crashdata.shtml> 2015; DOWL 2017. Orange line indicates linear trend. Crash data includes semis, heavy trucks up to 10,000 pounds, and buses.

The Motor Carrier Safety Assistance Program (MCSAP) is a federal grant program that provides financial assistance to states to reduce the number and severity of crashes and hazardous materials incidents involving commercial motor vehicles (CMV). The MCSAP is administered as a cooperative effort between MDT's Motor Carrier Services Division, Montana Highway Patrol and the Federal Motor Carrier Safety Administration.

One of the national safety concerns related to freight is the lack of availability of truck parking. This poses two primary safety challenges. One, it can lead to fatigued drivers because they are not able to find a place to rest, and two, it may also lead drivers to pull-off in undesignated areas for rest. Moving Ahead for Progress in the 21st Century (MAP-21) legislation began to address this issue through incorporating “Jason’s Law,” which surveyed truck parking availability and developed metrics to understand shortages. Figure 30 provides an overview of available spaces in Montana. Based on the survey, Montana has the highest number of truck parking spaces per 100,000 miles of daily combination VMT in the nation.

Figure 30: Truck Stop Parking Access in Montana



Source: US DOT, FHWA, Freight Management and Operations. Truck Parking. Jason’s Law Shapefile; Fehr & Peers 2016.

WHAT WE HEARD

Stakeholder and public involvement are crucial elements of TranPlanMT. Communication and collaboration with members of the public and transportation partners provide important feedback to help MDT develop goals and strategies for the plan. To understand the needs and priorities of Montana's transportation network from the perspective of daily users, MDT used multiple methods of outreach including a three-month online survey tool, stakeholder workshops and interviews, a project-specific website, and an open comment period throughout the entire planning process.

MDT Biennial Survey

Every two years, MDT contracts with a third party to conduct a public involvement survey and a stakeholder survey to examine:

- perceptions of the current condition of the transportation network;
- views about possible actions that could improve the transportation network in Montana; and
- opinions about the quality of service MDT provides to its customers.

In 2015, the survey interviewed 1,039 households and published the results on MDT's website (http://www.mdt.mt.gov/publications/docs/surveys/2015_tranplan21_public_involvement.pdf). The long-term nature of the surveys allows MDT to track progress and changes in customer expectations over time. In addition to surveying public opinion, MDT conducts a similar survey of transportation stakeholders to assess perceived transportation needs, improvements, and services in Montana.

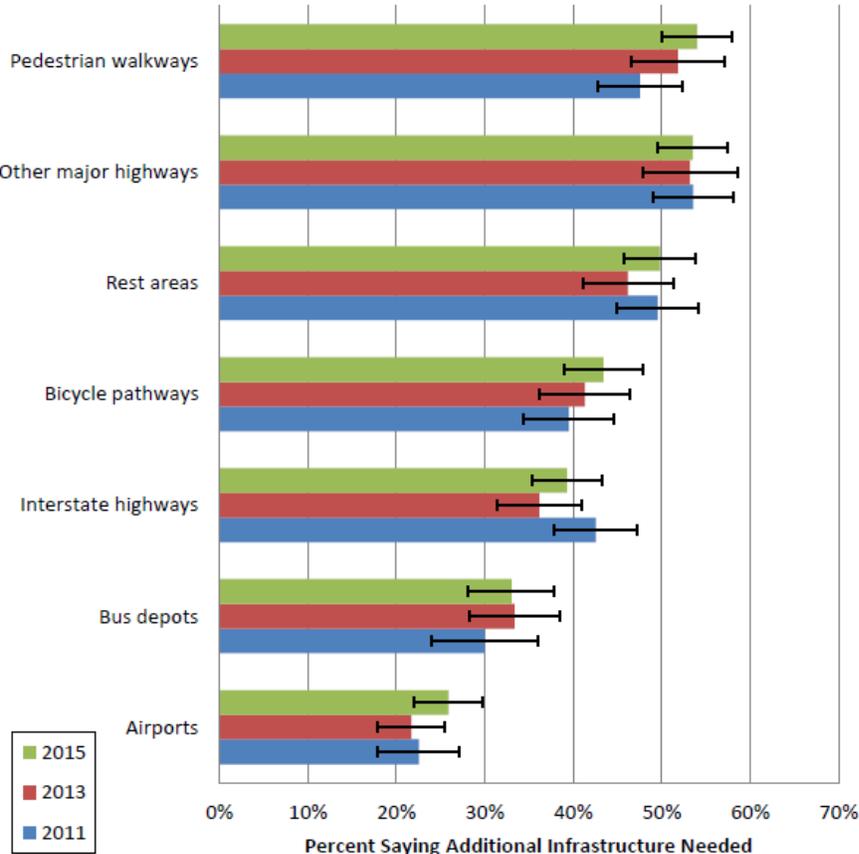
With respect to transportation users, the biennial survey showed that respondents are generally satisfied with the state of the transportation network. While satisfied with the availability of transportation options, they do wish to see an increase in passenger rail service, intercity bus services, and pedestrian walkways. They also showed an emphasis on increasing traveler safety on Montana's highways and walkways. Figure 31 presents the perceived need for facilities, equipment, or services.

Figure 32 presents respondent recommendations for improvements to the transportation system. Top priorities include:

- maintaining road pavement condition;
- keeping the public informed;
- including wildlife crossings and barriers;
- maintaining roadside vegetation; and
- improving transportation safety.

These priority areas align with public comments received through the TranPlanMT survey.

Figure 31: Perceived Need for Facilities, Equipment, or Services

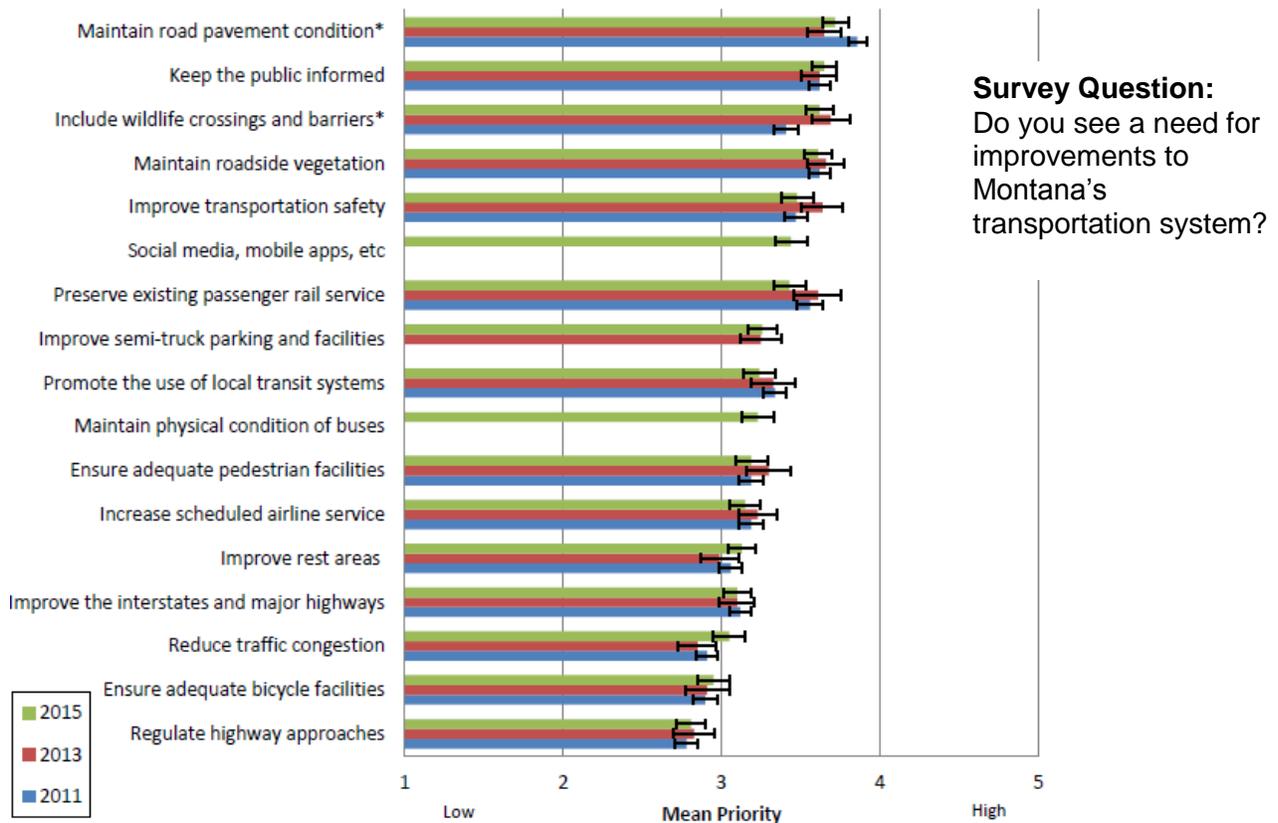


Survey Question:
Do you see a need for additional facilities, equipment, or services?

Note: Survey data are ranges. Error bars (—) represent the upper and lower bounds of the estimate. Differences are significant when error bars do not overlap and are denoted by *.

Source: TranPlan 21 Public Involvement Survey Volume 1 2015.

Figure 32: Possible Improvements in the Trans. System and Roadways



Note: Survey data are ranges. Error bars (—) represent the upper and lower bounds of the estimate. Differences are significant when error bars do not overlap and are denoted by *.

Source: TranPlan 21 Public Involvement Survey Volume 1 2015.

Public Comments

MDT received 24 written comments through email and traditional mail and more than 650 individual comments through the TranPlanMT online survey tool. Comments relating to transportation users are grouped and summarized in the following sections.

General

Overall, respondents remain supportive of current MDT efforts but desire increased transparency in the public involvement process.

Table 2: General Public Comments

| Topic Area | Comment/Suggestion |
|------------|--|
| General | <ul style="list-style-type: none"> Support increased alternatives to driving (i.e., public transportation, air travel, active transportation). Increase transparency of the planning process to ensure quality public involvement and comment. |

Driving

Preservation and maintenance of state infrastructure remains a high priority for respondents with increased emphasis on ensuring improvements are appropriate for the intersections, corridors, and areas for which they are being considered. In addition, respondents strongly support increasing safety efforts on roads through review of geometric standards, traffic volumes, and speed limits as they relate to crashes and serious injuries.

Table 3: Driving Comments

| Topic Area | Comment/Suggestion |
|------------|---|
| Driving | <ul style="list-style-type: none"> Continue focus on roadway maintenance and preservation (especially in high-mileage corridors). Reassess roundabouts to ensure appropriate usage. Increase safety signage on high-mileage roadways and intersections. Decrease speed limits statewide. Improve roadway geometrics to ensure safety and environmental consideration. Increase signalization improvements in areas with high collision rates. |

Driving Safety

One of the largest sections to receive public comment, Montana's highway safety remains a top priority for respondents. They generally support current MDT safety efforts, but requested additional focus on creation of a primary seatbelt law, increased enforcement of DUI regulations, and development of partnerships with law enforcement organizations to increase efficiency of efforts.

Table 4: Driving Safety Public Comments

| Topic Area | Comment/Suggestion |
|------------|--|
| Safety | <ul style="list-style-type: none"> Increase and enforce drunken driving penalties. Create a primary offense seatbelt law. Decrease speed limits statewide. Provide distracted driving education opportunities in schools. Make emergency management plans transparent and up-to-date. Increase enforcement measures and partnerships. Decrease the complexity of intersections and related signals and signage. Increase informational and safety related signage on major roadways. |

Non-motorized Transportation

Overall, respondents support increased development and support of non-motorized transportation options. As Montana continues to grow and diversify, respondents believe that transportation options for bicycles and pedestrians, increased safety considerations, and integrated services for the disabled will help Montana's transportation network stay current and accessible by all users. Several members of the public cautioned against using highway funding for these improvements and considerations.

Table 5: Non-Motorized Transportation Comments

| Topic Area | Comment/Suggestion |
|------------------------------|---|
| Non-motorized transportation | <ul style="list-style-type: none"> • Consider non-motorized users during placement of rumble strips. • Widen shoulders to increase safety and utility for non-motorized users. • Integrate of up-to-date demographic figures during priority selection. • Decrease the use of highway funds for non-highway uses. • Integrate increased multimodal services into active transportation plans. • Ensure ADA accessibility during every project / study. • Integrate public transportation partners and options with active transportation plans. • Ensure safety concerns of non-motorized users are addressed. • Increase education opportunities for non-motorized users regarding rules and regulations. • Support increased alternatives to driving (i.e., public transportation, air travel, active transportation). • Balance motorized and non-motorized priorities. • Focus on street dieting and other minimizing strategies. |

Public Transportation

Increased public transportation options and service providers were widely supported by respondents with direct requests for increased partnership with local transit providers and consideration of disabled riders needs and challenges.

Table 6: Public Transportation Public Comments

| Topic Area | Comment/Suggestion |
|-----------------------|---|
| Public Transportation | <ul style="list-style-type: none"> • Increase support for local and statewide public transportation options and efforts. • Support local transit partnerships. • Create inter- and intra-city public transportation opportunities and partners. • Ensure support for disabled users on public transportation. |

Rail Service

There is public support for a statewide, southern passenger rail service serving Montana's larger cities and towns. However, stakeholders cautioned that without increased ridership, the option remains unlikely due to high cost.

Table 7: Rail Service Public Comments

| Topic Area | Comment/Suggestion |
|--------------|--|
| Rail Service | <ul style="list-style-type: none"> • Create and support a southern Montana passenger rail service. • Support passenger rail service to major Montana towns/cities. |

Air Service

Respondents generally believe that air service in Montana is adequate, but understand the value of continuing to support a diversified and affordable system for both in- and out-of-state users. Air service providers and stakeholders rank Montana's air service as one of the best served compared to other surrounding rural states and see value in continuing to support tourism and visitation-related expansion efforts.

Table 8: Air Service Comments

| Topic Area | Comment/Suggestion |
|-------------|---|
| Air Service | <ul style="list-style-type: none"> • Increase air service both within and out of the state. • Increase focus on general aviation airports. • Provide support of increased tourism and travel efforts. • Support small, in-state commuter flights. • Support efforts to decrease airline prices and increase the number of air partners in-state. |

Intermodal

Respondents support increased multimodal options in Montana, specifically interconnectivity between Montana's larger cities and towns. Stakeholders recognize the importance of multimodal hubs to increase freight development in Montana and improving economic competitiveness of Montana products abroad.

Table 9: Intermodal Public Comments

| Topic Area | Comment/Suggestion |
|------------|---|
| Intermodal | <ul style="list-style-type: none"> • Increase intercity connectivity. • Support connection of multimodal hubs to existing network assets. • Prioritize intermodal connectivity over congestion delay and relief efforts. |

Trucking/Freight

Stakeholders believe that Montana's freight system remains a vital part of the state's economic development plans and generally see the system as meeting the needs of both providers and customers. They continue to emphasize the maintenance of identified freight corridors. Survey respondents noted a concern regarding the number of trucks and large freight movements through smaller communities.

Table 10: Trucking/Freight Public Comments

| Topic Area | Comment/Suggestion |
|------------------|--|
| Trucking/Freight | <ul style="list-style-type: none"> • Improve and maintaining critical, high-traffic freight corridors. • Decrease truck traffic through smaller communities. • Ensure regulations and maintenance continue to support increased freight traffic and economic expansion. |

Stakeholder Feedback

Transportation stakeholders gathered on June 15, 2016, to discuss the long-range transportation planning process and goals and priorities for Montana. Stakeholders also participated in an interactive voting exercise to assess transportation trends in Montana and predict if these trends would increase, decrease, or remain unchanged during the next twenty years.

Trend areas included: driving age population, vehicle ownership, suburban migration, licensing regulations, congestion and time use, non-auto modes, fuel costs, labor force participation, GDP & real income growth, goods & services delivery, telecommuting/teleconferencing, social networking, shared mobility services, autonomous cars, and driverless vehicles.

Following the forecasting exercise, stakeholders were asked to participate in small group discussions in one of six policy areas: Montana's Economy, Montana's Environment, Montana Highway Safety, Preservation and Maintenance, Congestion and Delay Relief, and Transportation Options. For stakeholders unable to attend the workshop, interviews were conducted to provide an opportunity for feedback on transportation priorities, goals, and other suggestions or concerns. Stakeholder comments are summarized in Table 11 according to workshop topic areas.

Table 11: Stakeholder Comments on Users

| Topic Area | Comment/Suggestion |
|--------------------------------------|--|
| <p>Montana Highway Safety</p> | <ul style="list-style-type: none"> • Convert undivided two lane facilities to five lane facilities • Provide more bike lanes and sidewalks in urban areas. • Conduct winter maintenance (i.e., sand sooner) to increase safety. • Expand shoulders in rural areas. • Add turn lanes to increase safety. • Expedite project delivery. • Investigate/require a seat belt/helmet law. • Increase safety education, especially for teen drivers. • Increase law enforcement. Current law enforcement practices are reactionary versus proactive. • Continue to improve cooperative/collaborative efforts with regard to safety education and improvements. • Investigate options to decrease speed limits around the state. |

| Topic Area | Comment/Suggestion |
|-------------------------------------|--|
| Preservation and Maintenance | <ul style="list-style-type: none"> • Repair potholes in a timely manner. • Add additional lanes to improve safety. • Conduct winter maintenance of roads but assure snow does not pile up on the adjacent sidewalks. • Mow ditches in rural areas more frequently. • Sweep streets in the spring to keep roads clear of debris. • Assure construction projects are completed in a timely manner. • Provide more clarification to local jurisdictions regarding MDT fund distributions and justification. • Provide additional clarification to the public and stakeholders regarding the P3 process. • Recognize funding issues faced by tribal, city, and county governments. • Investigate increasing Montana’s fuel tax to support maintenance efforts. • Provide additional clarification to stakeholders and the public with regard to access of MDT/FHWA funds. • Increase coordination with the public and local stakeholders regarding planning of improvements and fund distributions. |
| Transportation Options | <ul style="list-style-type: none"> • Examine additional funding sources for non-motorized and transit projects. • Examine funding sources to ensure that highway funds are used for highway projects • Consider construction of additional infrastructure for transportation options. • Consider partnerships with organizations to maintain bike paths. • Construct infrastructure to provide access to disabled users. • Increase/improve data collection efforts regarding walking, biking and transit use. • Develop tools to understand how future uses will lead to increased demand for transportation options, including watching demographic trends since youth and elderly rely more heavily on non-auto facilities. • Consider shifting mindset in planning projects from moving cars to moving people. • Revise current design standards to allow innovative, low-cost solutions. Current design standards for projects, in particular transit, may be excessive. • Explore ways to provide transit in non-traditional formats, like vanpools. • Leverage partners such as schools, cities, and Metropolitan Planning Organizations (MPOs) to create a more robust, connected system, regardless of the provider. • Address continuing insurance barriers for UBER/LYFT to operate in Montana. • Develop a statewide bike/ped plan. |
| Montana’s Economy | <ul style="list-style-type: none"> • Simplify and streamline the permitting process. • Examine additional funding sources to add capacity to the network, including interchanges and stretches of highway. • Increase institutionalized higher level coordination between MDT leadership and other agencies such as the Montana Department of Commerce. • Give higher prioritization to capacity enhancements. • Increase permanent (institutionalized) engagement with the private sector. • Provide a transportation advisory board. • Improve air transportation. • Balance support of over-the-road and over-the-rail freight corridors. • Increase support and facilitation of intermodal hubs around Montana. • Support tourism efforts related to air travel and airport improvements. |

MOVING MONTANA FORWARD

Goals and Strategies

MDT has developed a set of goals and strategies reflecting public and stakeholder feedback and analysis of available data.

- **Goals** are statements of desired results for the transportation network.
- **Strategies** are methods and business practices to achieve stated goals.

Goals and strategies provide broad policy guidance to inform and direct MDT decision making during the 20-year planning horizon.

- **Safety** is an overarching goal and is applied in nearly every MDT decision making process for all projects and programs.
- MDT makes roadway investment decisions by prioritizing (1) **system preservation and maintenance**, (2) **mobility and economic vitality**, and (3) **accessibility and connectivity**.
- Sensitivity to the **environment** and cost-effective **management** are underlying goals that inform decisions on a broad, department-wide basis.



Goals and strategies relevant to transportation users are listed below in order of priority. Strategy numbering reflects the complete set of goals and strategies, which can be viewed in their entirety in the *TranPlanMT Plan Summary*.



Safety (S): Improve safety for all transportation users to achieve Vision Zero: zero fatalities and zero serious injuries.

[Strategy S3: Target safety improvement projects to address crash pattern locations.](#)

An effective method to reduce fatalities and serious injuries is to focus prevention efforts in locations with the highest and most severe occurrences. MDT has developed models that estimate normal expected crash frequency and severity for a range of traffic volumes among similar facilities. Using these models, MDT can compare actual safety performance against anticipated performance to identify locations with the highest degree of deviation. These spots typically represent the highest potential for crash reduction. MDT also uses pattern recognition techniques to identify abnormal crash patterns and target crash factors associated with severe injuries. MDT uses this information to identify cost-effective transportation improvements in support of Montana's Comprehensive Highway Safety Plan.

[Strategy S4: Incorporate technology advancements in project development to improve safety.](#)

New technologies have the potential to improve safety performance on Montana roadways. MDT encourages innovation in design projects to deliver safety benefits to roadway users. Improvements in roadside safety hardware, pavement technology, vehicle to vehicle (V2V) and vehicle to infrastructure (V2I) communication, and traffic control measures can help combat driver distraction, roadway departure, and other common crash factors.

[Strategy S5: Leverage relationships with education, enforcement, emergency medical services, and engineering partners to foster a culture of safety on Montana roadways.](#)

Behavioral factors significantly contribute to roadway safety issues in Montana. We know that crashes occur even on roadways designed to the most current safety standards and guidelines. With the understanding that engineering alone is not sufficient to eliminate severe crashes, MDT works with safety partners representing education, enforcement, and emergency medical services groups throughout the state. These partnerships enable a comprehensive approach to align goals and leverage resources in the common pursuit to save lives and prevent injuries.

[Strategy S6: Reduce unsafe driving behavior through targeted focus on transportation safety emphasis areas identified in Montana's Comprehensive Highway Safety Plan.](#)

The CHSP provides a framework to engage Montana road users and traffic safety advocates to eliminate fatalities and zero serious injuries on Montana's roads. Through the CHSP development process, MDT reviewed crash data to identify critical crash factors that may have the biggest influence on reducing crash frequency or severity. In implementing the CHSP, MDT and safety partners throughout the state will focus on key transportation safety emphasis areas to address the most significant safety problems on Montana roadways.

[Strategy S7: Enhance crash data integration and analysis to support decision making and data-driven problem identification.](#)

MDT recognizes that accurate, complete information is key to making sound decisions. MDT works with local, state, and federal partners to gather safety data to better understand crash trends. Focusing on data collection and analysis enables MDT to identify the top safety issues in Montana and cost-effectively target resources to save lives.

Strategy S8: Provide leadership in air traveler safety through promotion of flight safety, accident prevention, and air search and rescue programs.

MDT oversees all public airports and airways in Montana and assures adherence to federal safety regulations developed by the FAA. MDT provides local supervision, education, and technical assistance to the aviation community in an effort to promote safety in aeronautics.



Mobility and Economic Vitality (MEV): Facilitate the movement of people and goods recognizing the importance of economic vitality.

Strategy MEV2: Enhance the freight network with targeted improvements to freight corridors.

Trucking and rail modes carry the largest percentage of freight commodities within the state of Montana. These modes are critical to ensuring freight is adequately and efficiently moved throughout the state and the nation. MDT regularly monitors and studies freight commodities and travel patterns throughout the state and considers effects to freight modes as investments are made to the transportation network. The Montana Freight Plan addresses performance management related to freight movement and guides MDT decisions regarding investments in infrastructure and operational improvements to highways such as congestion reduction, improved safety, and improved reliability. The Montana Rail Freight Loan Program is a low-interest revolving loan program that helps preserve and enhance freight railroad service in Montana.

Strategy MEV3: Consider the influence of user characteristics and technology advancements on travel demand patterns.

Understanding transportation user preferences is important to determine how these needs may inform transportation management and investment decisions. Population, household, and socioeconomic factors can influence mode choice and frequency and vary significantly across the state. Additionally, technology advancements such as autonomous cars and driverless vehicles have the potential to impact how users travel in the future. MDT evaluates historic and future modal, demographic, and technology trends to understand the implications on travel patterns that ultimately influence the transportation network.

Strategy MEV4: Promote efficient traffic management and operations by implementing practices that manage travel demand, reduce delay, and enhance mobility.

With Montana's population and economy anticipated to continue growing over the next 20 years, MDT is focused on working with transportation partners across the state to adequately meet transportation demands. In particular, MDT works closely with local governments and MPOs to monitor traffic conditions and identify cost-effective solutions to enhance roadway and intersection operations.

Strategy MEV5: Preserve the federal Essential Air Service program and continue support for Montana communities and airport operators through education and funding opportunities.

Essential Air Service (EAS) airports provide a level of scheduled air service to smaller communities through United States Department of Transportation air carrier subsidies. The future of the EAS program is uncertain due to changes in federal legislation and financial concerns, however, removal of EAS airports in Montana will likely have detrimental effects to the corresponding communities. MDT continues to promote and advocate for the EAS program through active participation in advocacy groups and related legislation.

Strategy MEV6: Preserve existing Amtrak service and continue support for Montana communities served by Amtrak.

Amtrak's Empire Builder passenger rail services fulfill a critical transportation function across northern Montana. With limited public transportation options serving Montana's Hi-Line, Amtrak passenger rail facilitates transport of users to medical, shopping, education, and other important needs. Although MDT does not own or operate passenger rail, MDT continues to promote the Amtrak program through rail preservation activities, rail-highway crossing safety improvements, national conversations, and collaboration with Amtrak during the statewide rail planning process.



Accessibility and Connectivity (AC): Improve access to the transportation network and connectivity between modes.

Strategy AC4: Identify and consider accessibility and connectivity needs on improvement projects.

MDT's *ADA Transition Plan* guides the department's efforts to provide an accessible transportation network within the state of Montana and provide equitable access to all transportation users. MDT complies with ADA regulations through a variety of methods used in project identification, design and construction, and operation and maintenance. Accessibility improvements are considered and implemented through bridge and roadway projects or stand-alone ADA improvement projects. MDT maintains an inventory of ADA curb ramps and continues to refine and expand upon reporting mechanisms that can aid in project development.

Strategy AC5: Coordinate use of public transportation systems through integrated planning with providers.

MDT is required to develop a group transit asset management plan on behalf of subrecipients of federal funding. Coordinated planning assists MDT and transit providers throughout Montana to prioritize rehabilitation and replacement efforts to keep capital transit assets in a state of good repair and provide a consistent level of service for transit passengers. Collaboration enables identification of common objectives and mutually agreeable performance measures.

Strategy AC6: Maximize efficiency of transportation options available to disadvantaged populations.

Low-income, elderly, and minority populations depend on public transportation to access employment, shopping centers, medical services, and education. MDT provides funding and support to transit providers to ensure efficient, reliable transportation services and enable disadvantaged populations to fully participate in society.

Performance Management

In support of MDT goals and strategies, MDT conducts performance-based planning in several key areas mandated through federal regulations. Performance-based planning is a process focused on data analysis to ensure investment decisions meet established goals.

In April 2016, FHWA issued final rulemaking addressing safety on public roads. FHWA also issued final rulemaking in January 2017 addressing system reliability, freight movement, and economic vitality. FHWA has defined the following performance measures for each performance management area.

Table 12: Performance Management Measures

| Area | Performance Measure ¹ |
|--------------------------------------|--|
| Safety | <ul style="list-style-type: none"> • Number of fatalities. • Rate of fatalities per 100 million VMT. • Number of serious injuries. • Rate of serious injuries per 100 million VMT. • Number of non-motorized fatalities and non-motorized serious injuries. |
| System Reliability | <ul style="list-style-type: none"> • Percent of person-miles traveled on the Interstate that are reliable. • Percent of person-miles traveled on the non- Interstate NHS that are reliable. • Level of travel time reliability (LOTTTR) defined by 80th percentile travel time divided by the 50th percentile travel time. A segment with value of less than 1.50 would be considered reliable. |
| Freight Movement & Economic Vitality | <ul style="list-style-type: none"> • Truck travel time reliability. Level of truck travel time reliability (TTTR) defined by the 95th percentile truck travel time divided by the 50th percentile truck travel time. |

Source: Final Rules, Highway Safety Improvement Program (HSIP) and Safety Performance Management Measures (Safety PM), 23 CFR 490 and 23 CFR 924, FHWA, April 2016; 23 U.S.C. 150. Final Rule, National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program, 23 CFR 490, FHWA, January 2017; 23 U.S.C. 167. ¹Only performance measures applicable to MDT and Montana population thresholds are listed in the table.

The proposed and final rules require transportation authorities to establish statewide targets for each of the performance measures listed in Table 12 within one year of the final rule issued by FHWA. MDT must coordinate with MPOs to ensure consistency in selecting targets.

FHWA will regularly assess progress in achieving defined performance targets. For safety targets, significant progress is demonstrated when at least four of the five targets are met or the outcome for the performance measure is better than the baseline performance the year prior to the target year. For the remaining targets, significant progress will be demonstrated if condition is equal to or better than the established target or better than the baseline condition.

If MDT cannot demonstrate significant progress toward achieving safety targets, it must obligate specific funds for safety projects and develop an implementation plan. MDT would be required to include a description of actions the State will undertake to achieve system reliability and freight targets in its next biennial performance report.

Performance Target

“a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by FHWA”



SOURCE: 23 CFR 490.101

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