



MONTANA

HIGHWAY SAFETY IMPROVEMENT PROGRAM 2017 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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Disclaimer

Protection of Data from Discovery Admission into Evidence

23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section [HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.”

23 U.S.C. 409 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

Executive Summary

In the reporting period, the Montana Department of Transportation (MDT) successfully utilized MDT's allotted Highway Safety Improvement Program (HSIP) funds on public roads in Montana. All 2016 sites were approved by the Transportation Commission within the reporting period (State Fiscal Year) and the remaining projects are being processed for programming from FHWA at this time. MDT identified potential locations using its Safety Performance Functions (SPF's) and diagnostic norms in connection with its Roadway Departure Study. MDT's newer Safety Information Management System (SIMS) continues to provide an effective and efficient tool to identify, analyze and track HSIP projects.

Montana continues to improve the accuracy of the database as new screening options are investigated. This includes tying all intersection data to a intersection specific geonode allowing for easier intersection crash identification as well as working with the Montana Highway Patrol to continue and improve the data being transferred to MDT's crash database (SIMS).

Overall, fatal crashes were down while serious injuries saw an increase in 2016. However, MDT continues efforts to cut fatal and serious injury crashes in half by 2030 by addressing crash clusters on all public roads.

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

The HSIP Program is a centrally administered program through the Safety Engineering Section which is within MDT's Traffic and Safety Bureau.

Each year, the Safety Engineering Section develops criteria to identify potential hot-spot crash locations for review. The Section also identifies potential systemic improvements for longer roadway segments and/or corridors. Sites are then reviewed through an established process which includes reviewing Montana Highway Patrol crash records, completing an office review and usually a field review. The last step is completing a benefit cost for a potential safety countermeasure that addresses the identified crash trend.

The sites that meet the minimum benefit cost threshold established by FHWA and are within the HSIP available funding, are nominated as HSIP Funded Safety Projects.

Where is HSIP staff located within the State DOT?

Engineering

Enter additional comments here to clarify your response for this question or add supporting information.

The Highway Safety Improvement Program is administered centrally by the MDT Traffic and Safety Bureau within the Engineering Division.

How are HSIP funds allocated in a State?

Central Office via Statewide Competitive Application Process

Enter additional comments here to clarify your response for this question or add supporting information.

Describe how local and tribal roads are addressed as part of HSIP.

All crashes investigated by the Montana Highway Patrol (MHP), or submitted to the MHP by a local enforcement agency, are available to MDT. In 2014 MDT implemented a new crash database system. This system allows MDT staff to query local road crash data by route and reference post as well as spatially via GIS tools. Fatal crash data is available for the Tribal reservations; however, other crashes investigated by the Tribal enforcement agencies or Bureau of Indian Affairs are not consistently submitted. MDT solicits participation from local and Tribal agencies, who can submit documentation of sites to be evaluated and prioritized under the Highway Safety Improvement Program. A nomination/application for HSIP projects is included on the MDT internet page at: http://www.mdt.mt.gov/publications/docs/forms/hsip_application.pdf.

Potential HSIP projects on local and Tribal roads are currently evaluated using the same methodologies as are applied to potential projects on the state owned system.

Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

Design
Planning
Maintenance
Operations
Governors Highway Safety Office
Other-District Personnel
Other-Motor Carriers

Enter additional comments here to clarify your response for this question or add supporting information.

Describe coordination with internal partners.

The MDT Planning Division coordinates the safety activities and administers the Comprehensive Highway Safety Plan (CHSP). The CHSP has recently undergone an update. The CHSP update was completed in May 2015. The updated CHSP is available at: http://www.mdt.mt.gov/visionzero/docs/chsp/current_chsp.pdf

The Highway Safety Improvement Program is administered centrally by the MDT Traffic and Safety Bureau. Crash clusters are identified by roadway system and by various criteria. Enforcement agencies identify locations and request site reviews. Local and Tribal agencies can forward potential safety projects or request MDT evaluate areas of interest. MDT District Offices also submit sites for investigation and participate in the engineering study to determine crash trends and countermeasure selection. Project selection is currently based on the benefit/cost ratio method. MDT has advanced some systemic improvements (curve signing and centerline rumble strips - as examples) based on the strategies outlined in the CHSP.

Appropriate entities within MDT are invited to participate in Corridor Safety Audits (CSA's). These entities

2017 Montana Highway Safety Improvement Program include, but may not be limited to, the State Highway Traffic Safety Section, Planning Division, Motor Carrier Services, Road Design, Traffic Operations, Maintenance, and District personnel.

Identify which external partners are involved with HSIP planning.

Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
Local Government Agency
Other-Tribes
Other-Law Enforcement

Enter additional comments here to clarify your response for this question or add supporting information.

Describe coordination with external partners.

MDT routinely receives requests for specific sites identified for review from law enforcement, local government entities and tribal governments. MDT coordinates with these governments during the field review process to gather additional input for addressing the crash trends. MDT coordinates with the MPO's in the same manner; however, the coordination is done through MDT's District and Planning Division Offices rather than the Traffic and Safety Bureau.

Have any program administration practices used to implement the HSIP changed since the last reporting period?

No

Are there any other aspects of HSIP Administration on which the State would like to elaborate?

Yes

Describe other aspects of HSIP Administration on which the State would like to elaborate.

Since 2006 Montana has had a Traffic Records Coordinating Committee (TRCC). The TRCC has representation from State agencies involved with safety records and Federal agencies for oversight and input. They meet regularly and attempt to coordinate and share projected record upgrades, new projects and pertinent records among participants. As the systems mature, the TRCC may include MPO and Tribal representation.

Starting September 2008, the Montana Highway Patrol (MHP) implemented the CTS America Public Safety System dispatch-crash-record systems, including a MMUCC based crash reporting form. MHP investigates approximately 50% of all statewide crashes. This CTS America System is presently only used by the MHP via a mobile client in each patrol unit; however, a web-based crash reporting system has been developed and is being used by several local agencies. This web based system allows local enforcement agencies to input crash information via the internet, if they choose to participate. The project is starting with the eight largest local Police Departments. These eight departments report about 80% of all local crashes.

In 2014, MDT implemented an upgrade to the safety database and analysis tools. This new software, referred to

2017 Montana Highway Safety Improvement Program as the Safety Information Management System (SIMS), has been deployed and is now in production at MDT. This new system allows MDT to access the MMUCC compliant crash data being collected by the Montana Highway Patrol. The SIMS system also has access to many roadway data elements including many of the Fundamental Data Elements identified by FHWA. Additionally, MDT has access to the MHP crash investigator's reports, if additional detail on the particular crash is required. The new system also allowed MDT to begin utilizing MHP citation data.

The Traffic and Safety Bureau is actively involved in the implementation of the CHSP. Traffic and Safety is taking the lead in the areas of roadway departure crashes and intersection crashes.

Program Methodology

Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Although MDT has an outdated Safety Manual, MDT has a clearly defined and documented HSIP process in place. The existing MDT Safety Manual is currently being re-written for use by the Traffic and Safety Bureau. This Safety Manual will include formal documentation of the HSIP Process from project selection through implementation and project evaluation.

Select the programs that are administered under the HSIP.

- Intersection
- Horizontal Curve
- Roadway Departure
- Other-Hot Spot

Enter additional comments here to clarify your response for this question or add supporting information.

The Hot Spot Program is MDT's main program; however, MDT does have current focus areas or initiatives as marked (Intersections, Roadway Departure and horizontal curve systemic upgrades).

Program: Horizontal Curve

Date of Program Methodology: 1/1/2015

What is the justification for this program? [Check all that apply]

- Addresses SHSP priority or emphasis area
- Other-Systemic Improvement

What is the funding approach for this program? [Check one]

- Competes with all projects

What data types were used in the program methodology? [Check all that apply]

Crashes

Exposure

Roadway

Horizontal curvature

What project identification methodology was used for this program? [Check all that apply]

Other-Ball Bank Threshold

Other-Road Classification

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program advanced for implementation?

Other-By District

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Enter additional comments here to clarify your response for this question or add supporting information. This is an initiative that MDT has implemented statewide to upgrade and provide consistency in horizontal curve signing. Therefore, a systemic improvement over multi-years to be in compliance with the new MUTCD requirements for curve signing.

Program: Intersection

Date of Program Methodology: 1/1/2015

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area

What is the funding approach for this program? [Check one]

Competes with all projects

What data types were used in the program methodology? [Check all that apply]

Crashes

All crashes
Fatal and serious injury crashes only

Exposure

Traffic
Volume

Roadway

What project identification methodology was used for this program? [Check all that apply]

Level of service of safety (LOSS)

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program advanced for implementation?

Other-Benefit Cost

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Enter additional comments here to clarify your response for this question or add supporting information.

MDT has been utilizing this initiative the past few years to mitigate roadway departure crashes. This method of identifying locations based on its level of service of safety corresponds with MDT's Vision Zero.

Program: Roadway Departure

Date of Program Methodology: 1/1/2015

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area
FHWA focused approach to safety

What is the funding approach for this program? [Check one]

Competes with all projects

What data types were used in the program methodology? [Check all that apply]

Crashes

All crashes
Fatal and serious injury crashes only

Exposure

Volume

Roadway

What project identification methodology was used for this program? [Check all that apply]

Level of service of safety (LOSS)

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program advanced for implementation?

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Enter additional comments here to clarify your response for this question or add supporting information.

MDT has been using this initiative for a few years to mitigate roadway departure crashes. This initiative assists MDT in focusing on locations where the actual total number of crashes and the severity of crashes are higher than predicted.

Program: Other-Hot Spot

Date of Program Methodology: 10/1/1989

What is the justification for this program? [Check all that apply]

Other-All public roads

What is the funding approach for this program? [Check one]

Competes with all projects

What data types were used in the program methodology? [Check all that apply]

Crashes

Exposure

Roadway

All crashes

Fatal and serious injury crashes only

Volume

What project identification methodology was used for this program? [Check all that apply]

Other-Requests - Areas to be investigated as requested by any agency or individual

Other-See additional description provided in question #15.

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

No

Describe the methodology used to identify local road projects as part of this program.

LOSS is not available for local roads. For the 2016 HSIP, local road projects were identified by querying the data for road departure crashes occurring in dark conditions. Other areas were included via request.

How are projects under this program advanced for implementation?

Other-Projects are evaluated and ranked on a benefit/cost system.

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Ranking based on B/C : 1

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Other-MDT has advanced some systemic projects (curve signing as an example) based on the strategies outlined in the CHSP without calculating a benefit/cost. : 1

Enter additional comments here to clarify your response for this question or add supporting information.

What percentage of HSIP funds address systemic improvements?

12

HSIP funds are used to address which of the following systemic improvements? Please check all that apply.

Rumble Strips
Horizontal curve signs

Enter additional comments here to clarify your response for this question or add supporting information.

What process is used to identify potential countermeasures? [Check all that apply]

Engineering Study
Road Safety Assessment
Crash data analysis
Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
Other-Field review of location with personnel knowledgeable of the crash trend as well as personnel (MDT/Local/Tribal) familiar with the roadway.

Enter additional comments here to clarify your response for this question or add supporting information.

Does the State HSIP consider connected vehicles and ITS technologies?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

MDT developed its Roadway Departure Study using Montana specific Safety Performance Functions (SPF) and Levels of Service of Safety (LOSS). These SPF's and LOSS's were developed based on methodologies in

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the Highway Safety Manual. The Intersection Safety Study is also being developed based on similar methodology.

Have any program methodology practices used to implement the HSIP changed since the last reporting period?

Yes

Describe program methodology practices that have changed since the last reporting period.

MDT has been developing Intersection SPF's to improve safety at intersections. These tools are initially being utilized at spot locations for the 2017 HSIP List.

Are there any other aspects of the HSIP methodology on which the State would like to elaborate?

Yes

Describe other aspects of the HSIP methodology on which the State would like to elaborate.

To identify potential locations for development of the 2017 HSIP, MDT has elected to screen the network using the following initial criteria: 1) Road departure crashes occurring for head-on and/or side-swipe opposite directional crashes; 2) Road departure crashes occurring for injury and fatal crashes; 3) Intersections identified by the Bureau and/or District where new analysis models were available to use; 4) Pattern Maps for rear end crashes or light pole crashes; and 5) Bighorn Sheep related crashes and 6) Requested Sites (By an Agency, District, Public Citizen, Safety Section).

Once the sites are identified, a preliminary office review identifies the sites where there are near-term reconstruction projects, currently programmed safety projects, or sites that were recently field reviewed. After the preliminary office review, further review establishes the sites that need on-site field reviews. The sites showing no crash trend are not field reviewed. The field review team establishes crash causations and contributing factors. The team members debate potential countermeasures. Conceptual designs are developed with cost estimates.

The project prioritization process is based on a benefit-cost analysis. The costs are the annualized cost of construction over the service life of the proposed improvement plus the annual increase in operation and maintenance costs due to the improvement. The benefits are the anticipated annualized cost reductions due to a lower number of crashes and lower crash severity. The projects with the highest benefit-cost ratios are nominated for improvements.

MDT has initiated several district wide horizontal curve signing upgrade projects. The goal of the projects is to complete a proactive improvement to upgrade all the curve warning signs to a consistent standard. The intent is to meet the compliance date of 2019. MDT also completed a systemic wrong way signing upgrade to all interstate ramps in 2015. The intent of the wrong way signing project was to bring the signing for all off-ramps to a consistent standard as shown in the 2009 MUTCD. MDT has also completed a large scale centerline rumble strip installation based on roadway segments and/or corridors meeting a previously established addressable crash threshold. This systemic project is on-going.

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MDT has also completed development of a Roadway Departure Study. This study included development of Safety Performance Functions (SPFs), Level of Service of Safety (LOSS), and diagnostic norms for rural on-system routes. MDT is using these tools and methodologies for evaluation of the HSIP as well as analysis of other agency projects. As part of the Study, MDT begun nominating centerline rumble strip projects as a proactive effort to address head-on, sideswipe opposite direction, and run off the road left crashes. MDT is currently developing SPF's and diagnostic norms for intersections. These intersection tools will be utilized in the development of the 2017 HSIP List and used in future years as well.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

Enter additional comments here to clarify your response for this question or add supporting information.

Montana's State Fiscal Year 2017 is the reporting period (July 1, 2016 through June 30, 2017)

Enter the programmed and obligated funding for each applicable funding category.

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$18,946,648	\$18,946,648	100%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$660,743	\$660,743	100%
Penalty Funds (23 U.S.C. 154)	\$0	\$0	0%
Penalty Funds (23 U.S.C. 164)	\$12,317,885	\$12,317,885	100%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	\$0	\$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	\$65,665,479	\$65,665,479	100%
State and Local Funds	\$5,477,808	\$5,477,808	100%
Totals	\$103,068,563	\$103,068,563	100%

Enter additional comments here to clarify your response for this question or add supporting information.

How much funding is programmed to local (non-state owned and operated) or tribal safety projects?

\$1,431,862

How much funding is obligated to local or tribal safety projects?

\$1,431,862

Enter additional comments here to clarify your response for this question or add supporting information.

How much funding is programmed to non-infrastructure safety projects?

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\$1,198,476

How much funding is obligated to non-infrastructure safety projects?

\$1,198,476

Enter additional comments here to clarify your response for this question or add supporting information.

The HSIP Administration Project (HSIP STWD(546)) is a yearly project that funds the HSIP Planning Process for MDT. The funds identified above are for the FY 2018 HSIP Program (July 1, 2017-June 30, 2018).

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

\$0

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

\$0

Enter additional comments here to clarify your response for this question or add supporting information.

Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.

The inability to utilize HSIP funding for non-infrastructure projects impedes MDT's HSIP Program. NHTSA has determined that 94% of crashes can be tied back to human error or bad decisions. By only focusing on infrastructure improvements, we are focusing on mitigating the result of the crash but not necessarily the contributing human factor cause to the crash (drinking, cell-phone usage, inattentiveness, distraction, occupant protection, etc). In order to move towards Vision Zero, drivers need continued awareness of their actions and how these actions are contributing to vehicular crashes.

In addition, MDT is required to participate in fall and spring media campaigns for occupant protection and seat belts. There is no additional funding available to provide media at other times of the year. However, Montana experiences its highest number of fatalities during the summer months and MDT has no active campaign during that time period.

MDT intends to improve public outreach to assist in this process. A new program has been implemented to increase public awareness during our construction projects. The intent is to send a consistent message of what is being constructed and in many cases how that benefits the traveling public's safety (for example, promoting the benefits of centerline rumble strips during the actual construction of those safety improvements).

Does the State want to elaborate on any other aspects of it's progress in implementing HSIP projects?

Yes

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Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

Historically, MDT has been very successful in utilizing HSIP Funds and has strong support for the program from MDT Management.

MDT is currently developing a Safety Manual to (1) evaluate and document MDT's current process for development of HSIP projects; (2) evaluate and document the current Fundamental Data Elements (FDE) contained in MDT's Safety Information Management System (SIMS); (3) review and update, if necessary, MDT's current process guidelines for completion of Road (Corridor) Safety Audits; (4) review, enhance, and consolidate current analytical processes, practices, and procedures for incorporation of safety enhancements into non-HSIP projects; (5) develop documentation and processes which combines documentation from the recently completed SIMS project, with the analytical tools developed as part of the Road Departure Study and the Intersection Study; and (6) prepare one chapter containing guidelines for inclusion of pedestrian safety countermeasures. The anticipated completion date for this manual is December 2018.

MDT recently completed Phase I of its Intersection Safety Study. This study included development of Safety Performance Functions (SPF's), Level of Service of Safety (LOSS), and diagnostic norms for urban and rural 3 or 4 legged intersections. MDT is currently using these new tools in the development of the 2017 HSIP List. Phase II is anticipated to be complete in December 2017 and at that time, MDT will begin using these tools and methodologies in both the development of the HSIP and other agency projects.

2017 Montana Highway Safety Improvement Program

General Listing of Projects

List the projects obligated using HSIP funds for the reporting period.

													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
SAFETY MANAGEMENT PROGRAM	Non-infrastructure				\$1198476	\$1331640	HSIP (23 U.S.C. 148)	Non-Infrastructure	0		State Highway Agency			
2017 SFTY UTILITY FAST PROCESS	Roadway	Roadway - other			\$49937	\$55485.5555555556	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
BELGRADE-SOUTH	Roadway	Roadway - other	5.7	Miles	\$621000	\$621000	Penalty Funds (23 U.S.C. 164)	Urban Minor Arterial	16,014	70	State Highway Agency	Other	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
FRENCHTOWN - E & W	Roadside	Barrier - cable	10.2	Miles	\$1363411	\$1363411	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial - Interstate	10,604	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
RAINBOW BEND	Roadway	Rumble strips - center	1.5	Miles	\$92573	\$92573	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	4,539	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
ROCKVALE-LAUREL (2 LANES)	Roadway	Roadway - other	8.7	Miles	\$7222557	\$7222557	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial - Other	7,611	70	State Highway Agency	Other	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 119-INT IMP - N GRASS RANGE	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$158354	\$158354	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	1,245	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
SF 119-JCT S-279/S-231	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$2725340	\$2725340	HSIP (23 U.S.C. 148)	Rural Major Collector	1,589	55	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 129 - GUARDRAIL JCT 324	Roadside	Barrier- metal	0.5	Miles	\$168483	\$168483	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	3,715	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 129 - SFTY IMPR E BONNER	Roadside	Roadside grading	1	Miles	\$616743	\$685270	HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural Major Collector	1,609	55	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 129 - SFTY IMPR E BONNER	Roadside	Roadside grading	1	Miles	\$44000	\$44000	HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural Major Collector	1,609	55	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 129-LFT TURN LN EMIGRANT RA	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Locations	\$540653	\$600725.555555556	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	2,068	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 129-LFT TURN LN EMIGRANT RA	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Locations	\$64838	\$64838	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	2,068	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 129- ROUNDABOUT LAME DEER	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersections	\$53248	\$53248	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	3,875	55	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														the use of best practices.
SF 129- ROUNDAABOUT LAME DEER	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersections	\$1249900	\$1249900	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	3,875	55	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 129-SFTY IMPRV BRDGR CANYON	Roadway signs and traffic control	Curve-related warning signs and flashers	1	Locations	\$190902	\$190902	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,027	45	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - ARMINGTON SLOPE FLT	Roadside	Roadside grading	4.6	Miles	\$70190	\$77988.888888889	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	2,390	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - ARMINGTON SLOPE FLT	Roadside	Roadside grading	4.6	Miles	\$6459.02	\$6459.02	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial - Other	2,390	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - ARMINGTON SLOPE FLT	Roadside	Roadside grading	4.6	Miles	\$975840.98	\$975840.98	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial - Other	2,390	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - BOZEMAN SFTY IMPRV	Roadway signs and traffic control	Curve-related warning signs and flashers	5	Locations	\$96374	\$96374	HSIP (23 U.S.C. 148)	Various Roads	0	0	City of Municipal Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - BOZEMAN SIGNAL SFTY	Intersection traffic control	Systemic improvements - signal-controlled	57	Intersections	\$746818	\$746818	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Systemic	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	RELATIONSHIP TO SHSP	
													EMPHASIS AREA	STRATEGY
														the use of best practices.
SF 139 - BUTTE ADV SGNL FLSHER	Intersection traffic control	Intersection flashers - modify existing	4	Locations	\$46852	\$46852	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Systemic	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139 - FORSYTH SKID TRTMENT	Roadway	Pavement surface - high friction surface	1	Locations	\$375770	\$417522.222222222	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	4,757	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - FORSYTH SKID TRTMENT	Roadway	Pavement surface - high friction surface	1	Locations	\$122237	\$122237	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	4,757	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - GREGSON BRDG REMOVAL	Roadway	Roadway - other	1	Locations	\$18000	\$20000	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	10,874	80	State Highway Agency	Other	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 139 - HLN FLTS INTERSECTION	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$129967	\$129967	HSIP (23 U.S.C. 148)	Rural Minor Arterial	12,961	45	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139 - SUN PRAIRIE TURN LANE	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersections	\$22500	\$25000	HSIP (23 U.S.C. 148)	Rural Major Collector	3,250	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139 - US 212 SAFETY IMPRV	Roadside	Roadside - other	39.2	Miles	\$1813911	\$1813911	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	2,000	70	State Highway Agency	Other	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														identification and the use of best practices.
SF 139-CENTRAL & 56TH RNDABOUT	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$230000	\$230000	HSIP (23 U.S.C. 148)	Rural Minor Collector	3,104	60	County Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139-ROUNDABOUT S OF SIDNEY	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$250000	\$250000	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	6,792	65	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139-ROUNDABOUT S OF SIDNEY	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$2066822	\$2066822	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	6,792	65	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139-ROUNDABOUT S OF SIDNEY	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$50000	\$50000	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	6,792	65	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139-ROUNDABOUT S OF SIDNEY	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$12556	\$12556	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	6,792	65	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139-SIGNAL 13TH & PARKHILL	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$235488	\$235488	HSIP (23 U.S.C. 148)	Urban Major Collector	8,732	25	City of Municipal Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
SF 139-TURN LANES NW OF POLSON	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Locations	\$50000	\$50000	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	8,661	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 139-TURN LANES NW OF POLSON	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Locations	\$39252	\$39252	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	8,661	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 149 - BAXTER/LOVE SFTY IMPR	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersections	\$870000	\$870000	HSIP (23 U.S.C. 148)	Rural Minor Collector	3,970	45	County Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 149 - BUTTE INTERSTATE SFTY	Roadway signs and traffic control	Curve-related warning signs and flashers	3	Locations	\$25761	\$25761	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	3,887	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 - MANHATTAN SFTY IMPRV	Roadway signs and traffic control	Curve-related warning signs and flashers	1	Locations	\$10678	\$10678	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 - MSLA DIST SFTY IMPRV	Roadway signs and traffic control	Curve-related warning signs and flashers	3	Locations	\$59400	\$59400	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 BOZEMAN SFTY IMPRV	Roadway signs and traffic control	Curve-related warning signs and flashers	2	Locations	\$43745	\$43745	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
SF 149 BUTTE SFTY IMPRV	Roadside	Barrier- metal	0.3	Miles	\$56270	\$56270	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 DUCK LK FENCING	Roadside	Fencing	1.5	Miles	\$45000	\$45000	HSIP (23 U.S.C. 148)	Rural Major Collector	975	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 E OF BIGFORK SFTY IMPRV	Roadway delineation	Delineators post-mounted or on barrier	5	Miles	\$32592	\$32592	HSIP (23 U.S.C. 148)	Rural Major Collector	3,978	60	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 E OF SOMERS CLRS	Roadway	Rumble strips - center	7.4	Miles	\$53911	\$53911	HSIP (23 U.S.C. 148)	Rural Minor Arterial	6,972	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 HELENA SFTY IMPRV	Roadway signs and traffic control	Curve-related warning signs and flashers	3	Locations	\$27852	\$27852	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 LAKE FIVE LT TURN	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersections	\$189813	\$189813	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial - Other	6,670	60	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 149 ROCKY CLIFF ITS	Advanced technology and ITS	Advanced technology and ITS - other	1	Intersections	\$105065	\$105065	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	19,369	65	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
SF 149 SFTY IMPRV N-24	Roadside	Barrier- metal	2	Locations	\$138804	\$138804	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial - Other	4,539	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 149 SOMERS SFTY IMPRV	Pedestrians and bicyclists	Pedestrian beacons	1	Locations	\$59400	\$59400	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 159 GREAT FALLS DIST CLRS	Roadway	Rumble strips - center	855	Miles	\$2813233	\$2813233	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 CLEARING SFTY IMPRV	Roadside	Removal of roadside objects (trees, poles, etc.)	4	Miles	\$22068	\$24520	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	6,882	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 FAIRFIELD CURVE IMPRV	Alignment	Horizontal curve realignment	3	Curves	\$431712	\$479680	HSIP (23 U.S.C. 148)	Rural Major Collector	337	70	State Highway Agency	Other	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 FRNTG RD WISE LN INTX	Advanced technology and ITS	Advanced technology and ITS - other	1	Intersections	\$15797	\$15797	HSIP (23 U.S.C. 148)	Urban Minor Arterial	4,980	70	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 169 GLENDIVE NORTH CLRS	Roadway	Rumble strips - center	323	Miles	\$38261	\$38261	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
SF 169 GLENDIVE SOUTH SFTY	Roadway	Rumble strips - center	205	Miles	\$42941	\$42941	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 GRANITE POWELL SFTY	Roadway signs and traffic control	Curve-related warning signs and flashers	5.4	Miles	\$21697	\$21697	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 169 I-15 HT CABLE RAIL	Roadside	Barrier - cable	10	Miles	\$268548	\$268548	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	10,470	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 KALISPELL SFTY IMPRV	Roadway signs and traffic control	Curve-related warning signs and flashers	3	Miles	\$24303	\$24303	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 KOOTENAI CR RD SFTY	Advanced technology and ITS	Advanced technology and ITS - other	1	Intersections	\$23574	\$23574	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	7,712	70	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 169 LOLO E MSLA SFTY IMPRV	Roadway	Rumble strips - center	3	Locations	\$23836	\$23836	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 169 MINERAL CNTY SFTY IMPRV	Roadway signs and traffic control	Curve-related warning signs and flashers	5.6	Miles	\$20000	\$20000	HSIP (23 U.S.C. 148)	Rural Local Road or Street	0	70	State Highway Agency	Other	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
SF 169 N11 MURPHY INTX	Advanced technology and ITS	Advanced technology and ITS - other	1	Intersections	\$18054	\$18054	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	2,508	70	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 169 RAVALLI CNTY SFTY	Roadway signs and traffic control	Curve-related warning signs and flashers	1.5	Miles	\$9794	\$9794	HSIP (23 U.S.C. 148)	Various Roads	0	0	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 S OF PABLO SFTY IMPRV	Roadside	Barrier - removal	0.5	Miles	\$129088	\$129088	HSIP (23 U.S.C. 148)	Urban Principal Arterial - Other	11,525	70	State Highway Agency	Other	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices.
SF 169 S ROCKER HT CABLE RAIL	Roadside	Barrier - cable	4.3	Miles	\$110480	\$110480	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	4,368	80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 S288 CURVES	Alignment	Horizontal curve realignment	2	Curves	\$136896.84	\$152107.6	HSIP (23 U.S.C. 148)	Rural Major Collector	1,475	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 S288 CURVES	Alignment	Horizontal curve realignment	2	Curves	\$529072.56	\$587858.4	HSIP (23 U.S.C. 148)	Rural Major Collector	1,475	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.
SF 169 TWIN BRIDGES SFTY	Roadway	Rumble strips - edge or shoulder	3	Miles	\$8178	\$8178	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	1,991	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
WEST LAUREL INTCH-WEST PHASE 1	Roadway	Roadway widening - curve	1	Locations	\$1800000	\$1800000	Penalty Funds (23 U.S.C. 164)	Urban Principal Arterial - Interstate	15,198	80	State Highway Agency	Other	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices.

Enter additional comments here to clarify your response for this question or add supporting information.

There are several projects which are listed with one or more lines. This is due to multiple agreements that were obligated during the State's Fiscal Year 2017. These agreements may represent different phases including (PE, CE, Other, IC, etc).

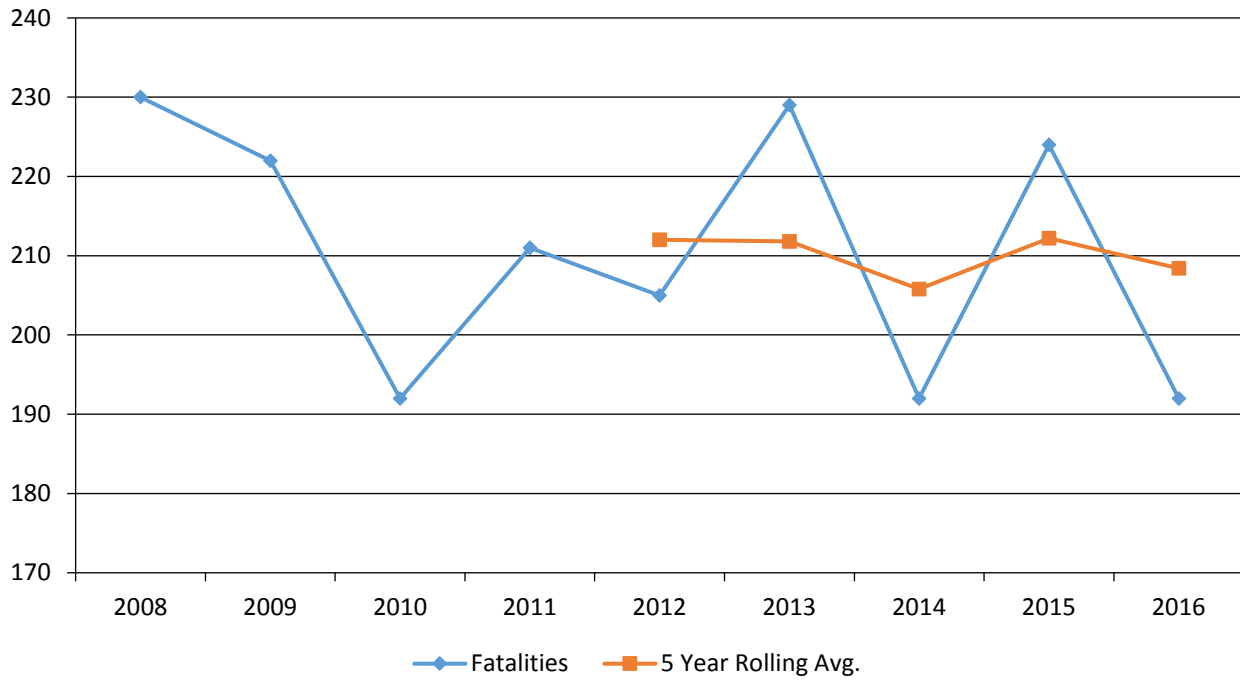
Safety Performance

General Highway Safety Trends

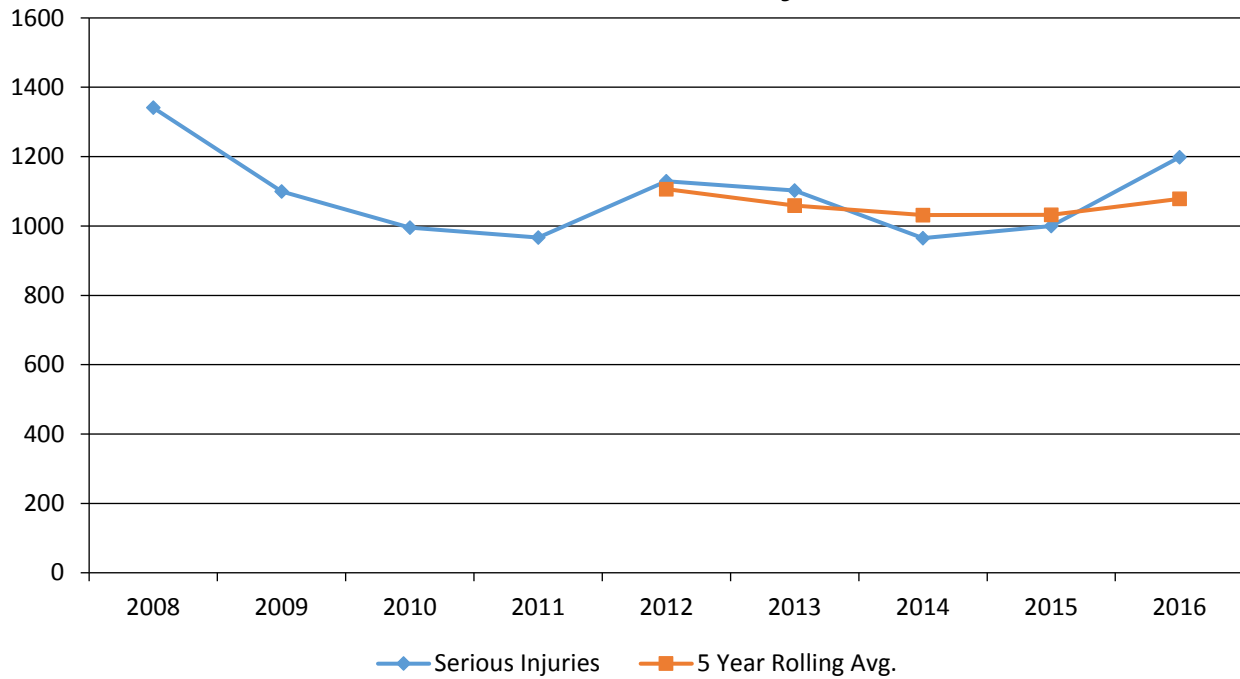
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2008	2009	2010	2011	2012	2013	2014	2015	2016
Fatalities	230	222	192	211	205	229	192	224	192
Serious Injuries	1,341	1,100	995	967	1,129	1,102	965	1,000	1,198
Fatality rate (per HMVMT)	2.120	2.010	1.690	1.790	1.740	1.910	1.580	1.840	1.520
Serious injury rate (per HMVMT)	12.400	10.100	8.900	8.200	9.600	9.200	8.000	8.200	9.530
Number non-motorized fatalities	14	16	10	16	9	24	12	15	14
Number of non-motorized serious injuries	84	70	50	58	48	61	57	49	63

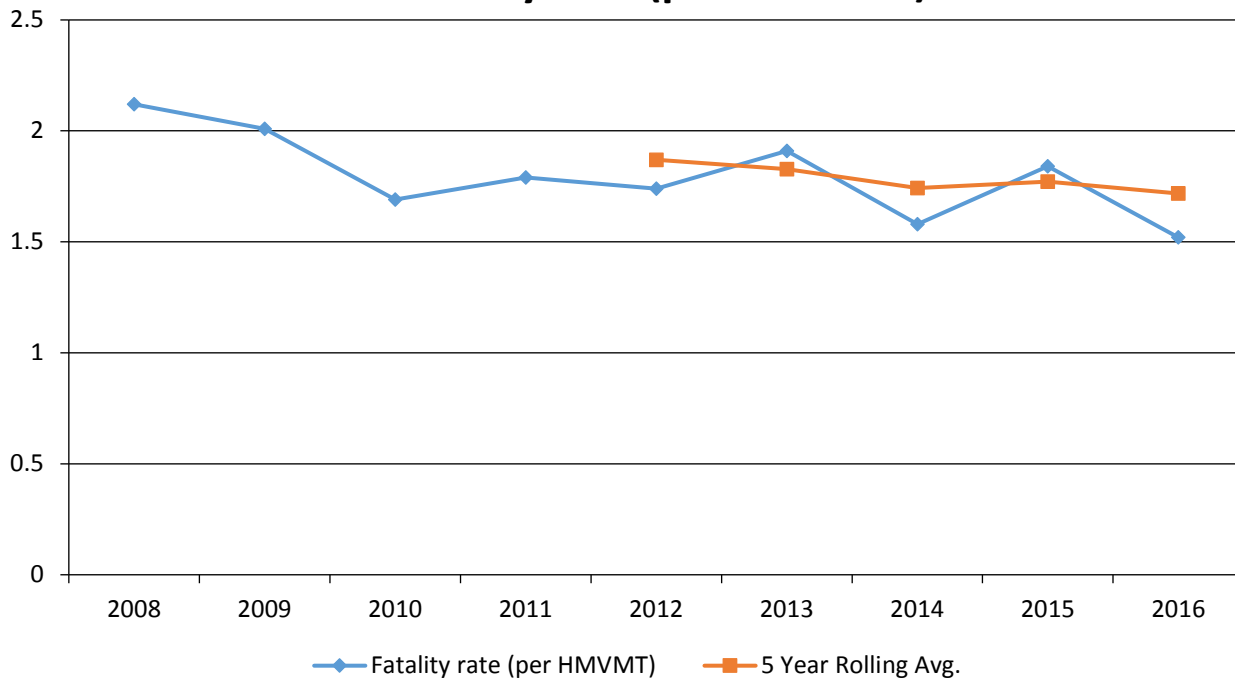
Annual Fatalities



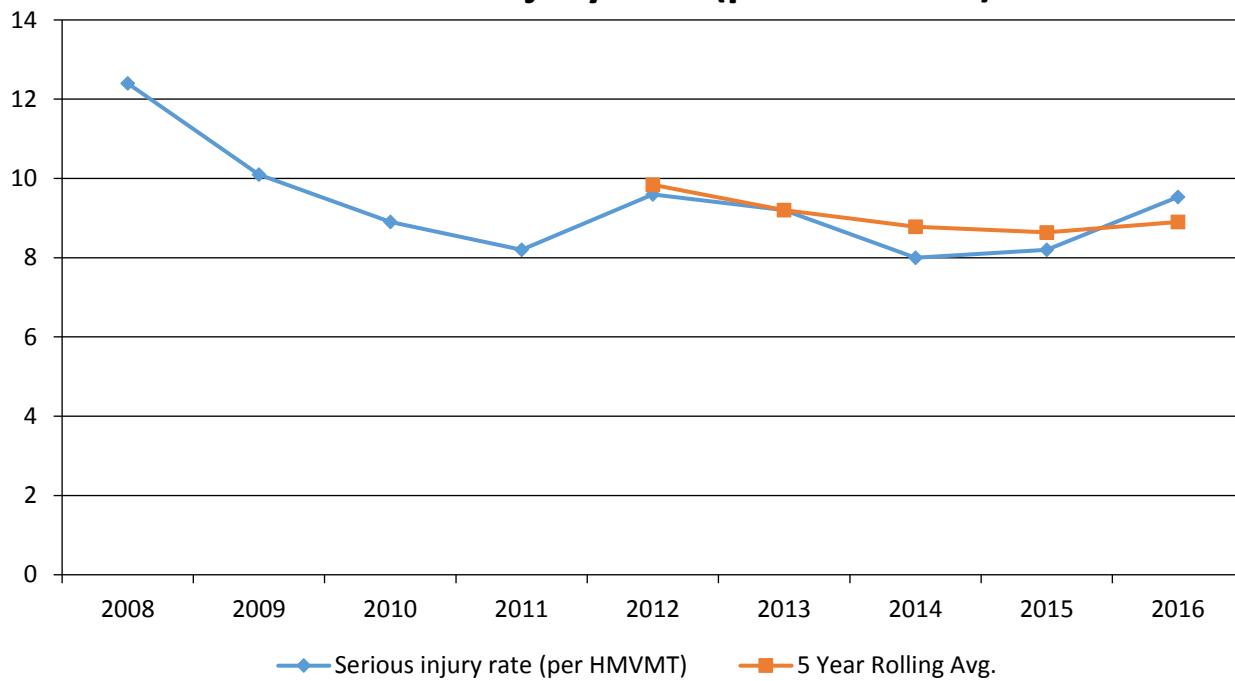
Annual Serious Injuries



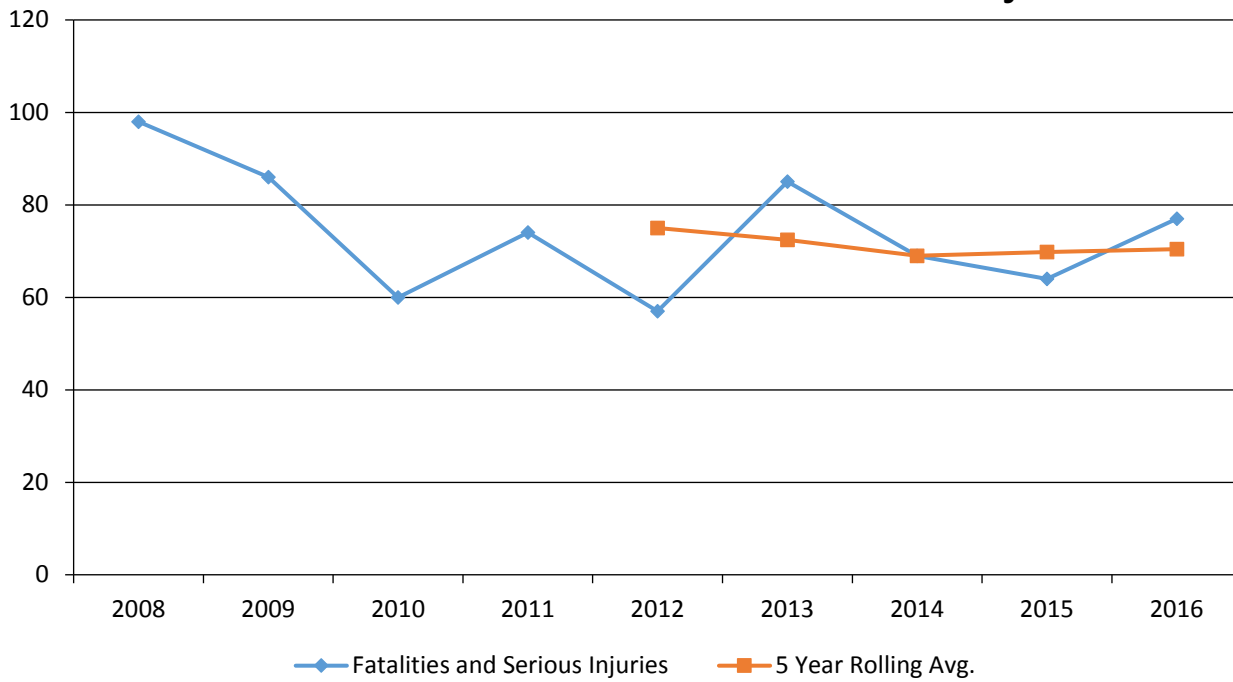
Fatality rate (per HMVMT)



Serious injury rate (per HMVMT)



Non Motorized Fatalities and Serious Injuries



Enter additional comments here to clarify your response for this question or add supporting information.

Describe fatality data source.

FARS

Enter additional comments here to clarify your response for this question or add supporting information.

To the maximum extent possible, present this data by functional classification and ownership.

Year 2016

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial - Interstate	29.6	141.6	1.19	5.68
Rural Principal Arterial - Other Freeways and Expressways				
Rural Principal Arterial - Other	44.4	187.4	1.86	7.89
Rural Minor Arterial	27.8	116.8	2.54	10.66

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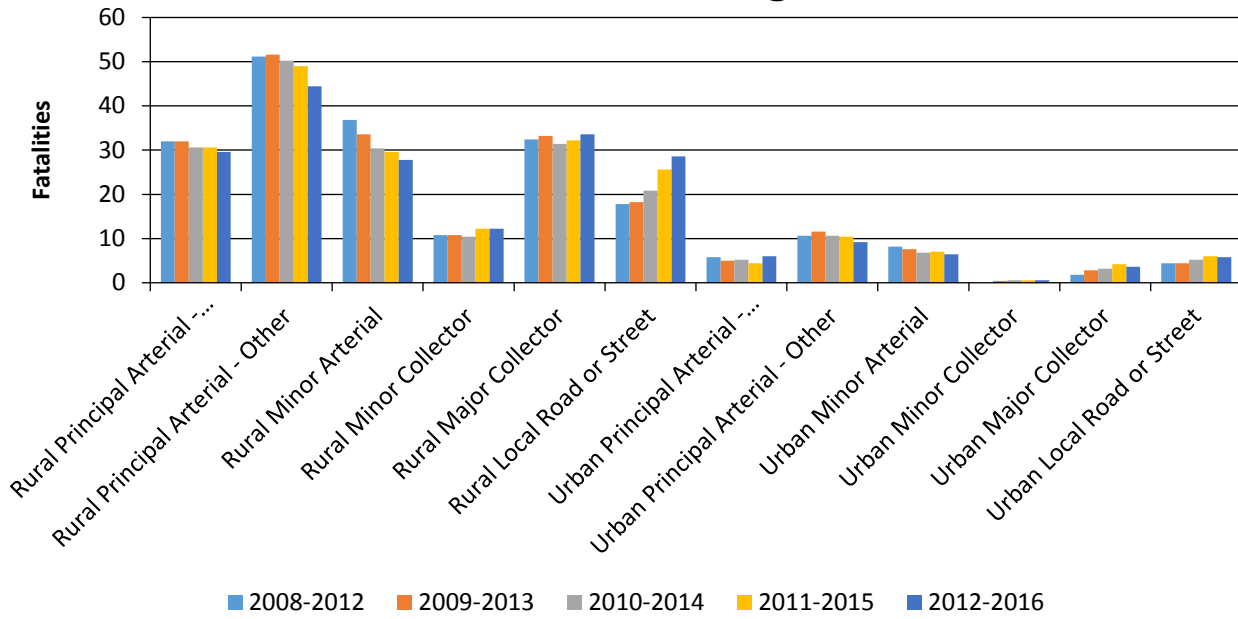
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Minor Collector	12.2	54.8	2.36	11.29
Rural Major Collector	33.6	110.6	3.42	11.35
Rural Local Road or Street	28.6	130.2	2.21	10.91
Urban Principal Arterial - Interstate	6	29.6	1.14	5.36
Urban Principal Arterial - Other Freeways and Expressways				
Urban Principal Arterial - Other	9.2	94.2	0.77	8.05
Urban Minor Arterial	6.4	42.6	1.01	6.87
Urban Minor Collector	0.6	2.6	2.32	8.68
Urban Major Collector	3.6	33.6	0.91	8.49
Urban Local Road or Street	5.8	65.6	0.93	8.74

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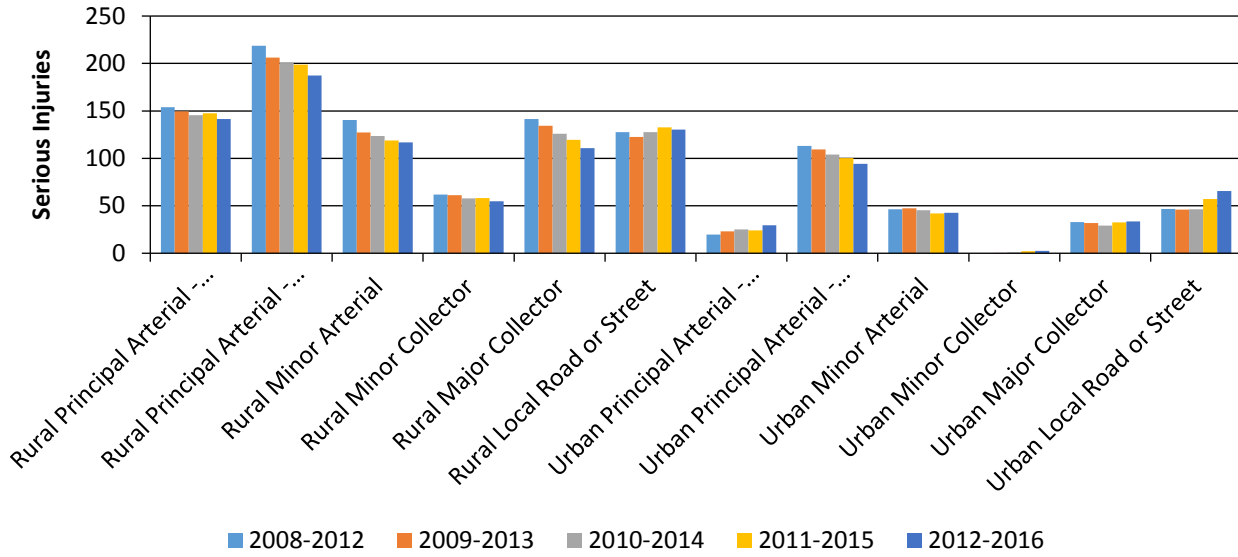
Year 2016

Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	149.6	677.6	1.73	7.84
County Highway Agency	24.2	132.4	1.69	9.43
Town or Township Highway Agency				
City of Municipal Highway Agency	14.2	139	0.73	7.3
State Park, Forest, or Reservation Agency	0.2	2.2	2.86	29.05
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation	12.2	22.6	6.77	12.96
Bureau of Indian Affairs	1.2	2.4	10.36	15.82
US Forest Service	6.2	33.2	1.85	10.14
National Park Service	0	0	0	0

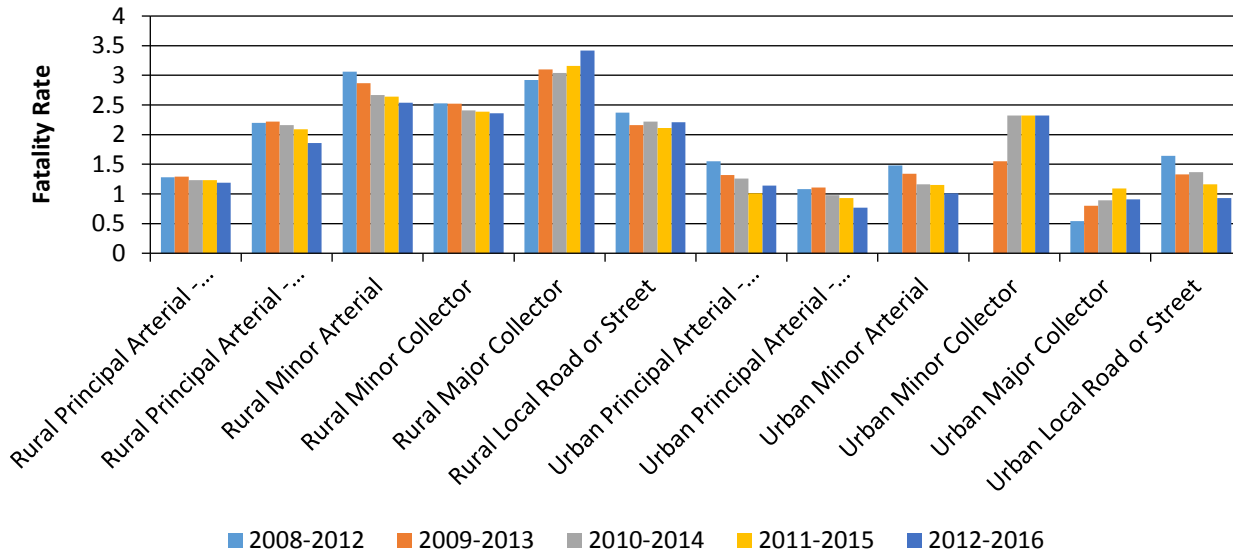
Number of Fatalities by Functional Classification 5 Year Average



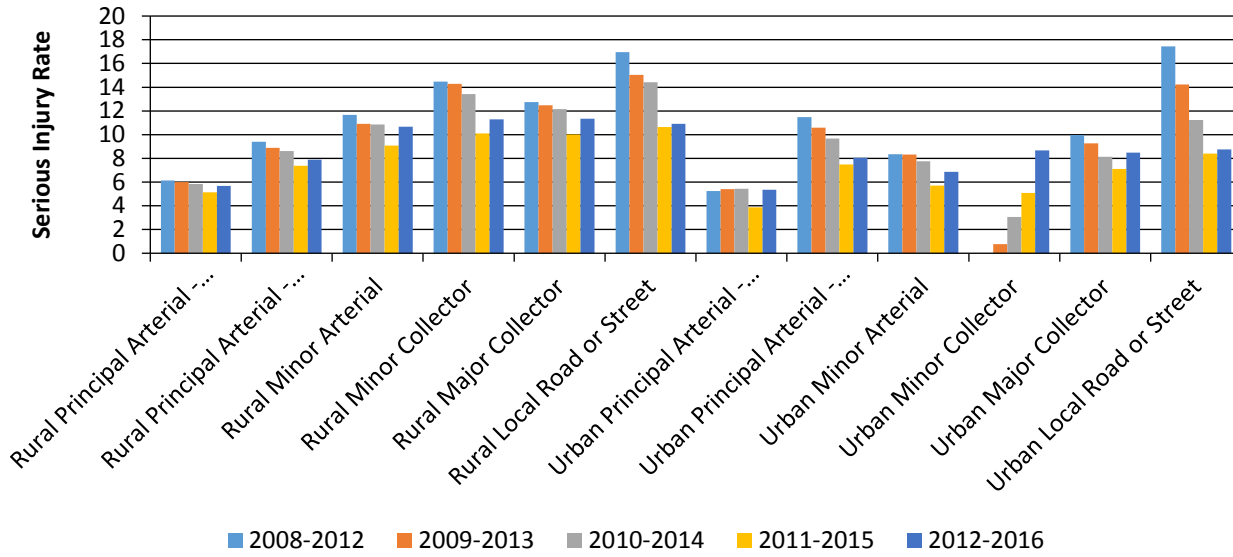
Number of Serious Injuries by Functional Classification 5 Year Average



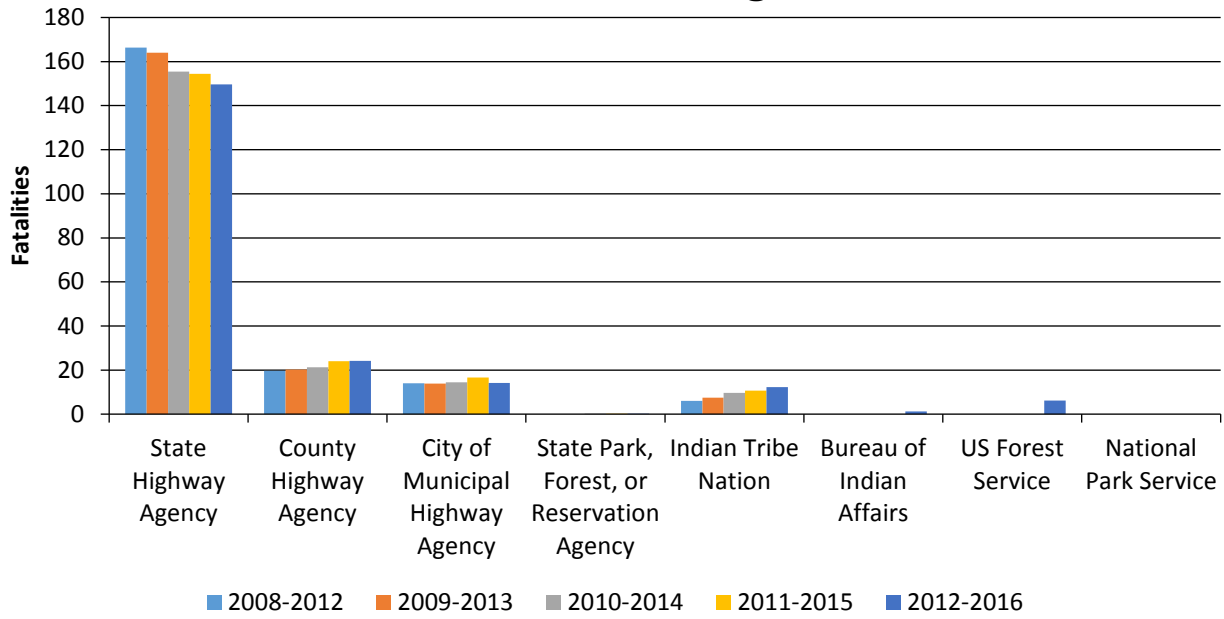
Fatality Rate (per HMVMT) by Functional Classification 5 Year Average



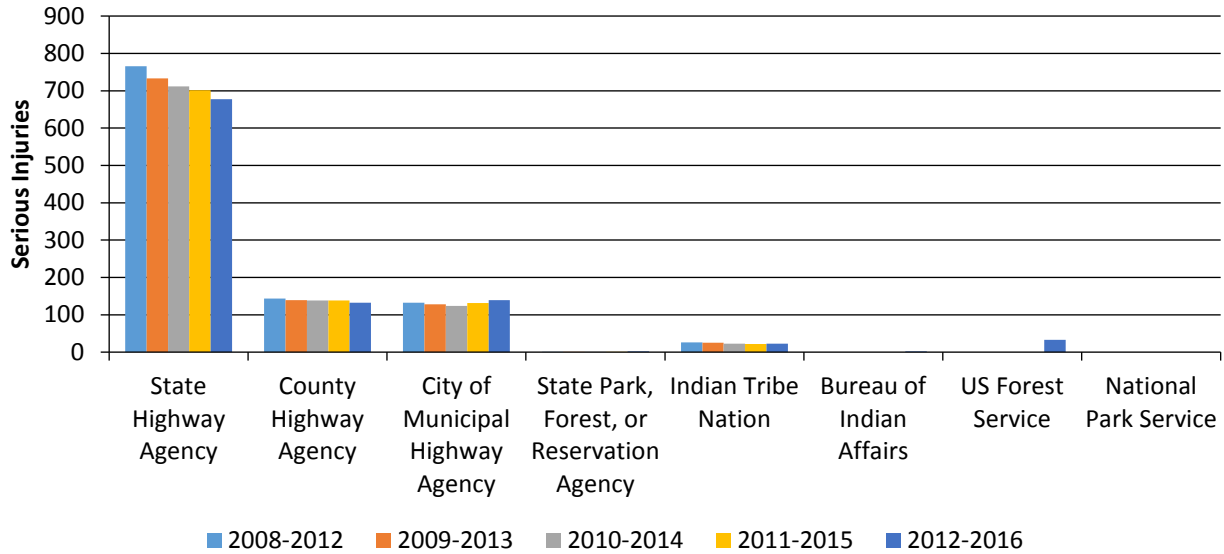
Serious Injury Rate (per HMVMT) by Functional Classification 5 Year Average



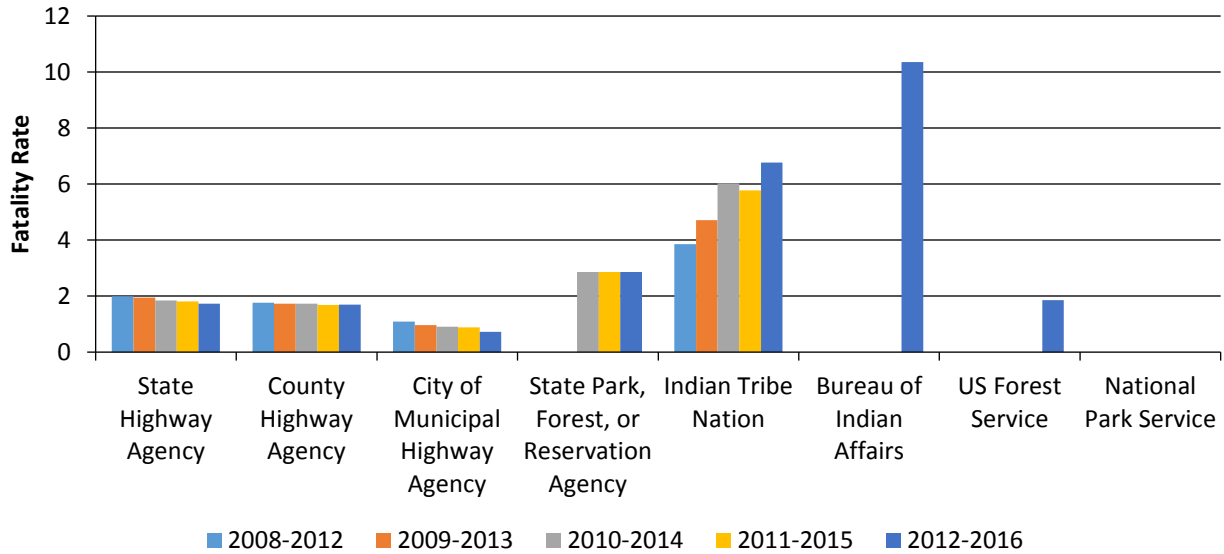
Number of Fatalities by Roadway Ownership 5 Year Average



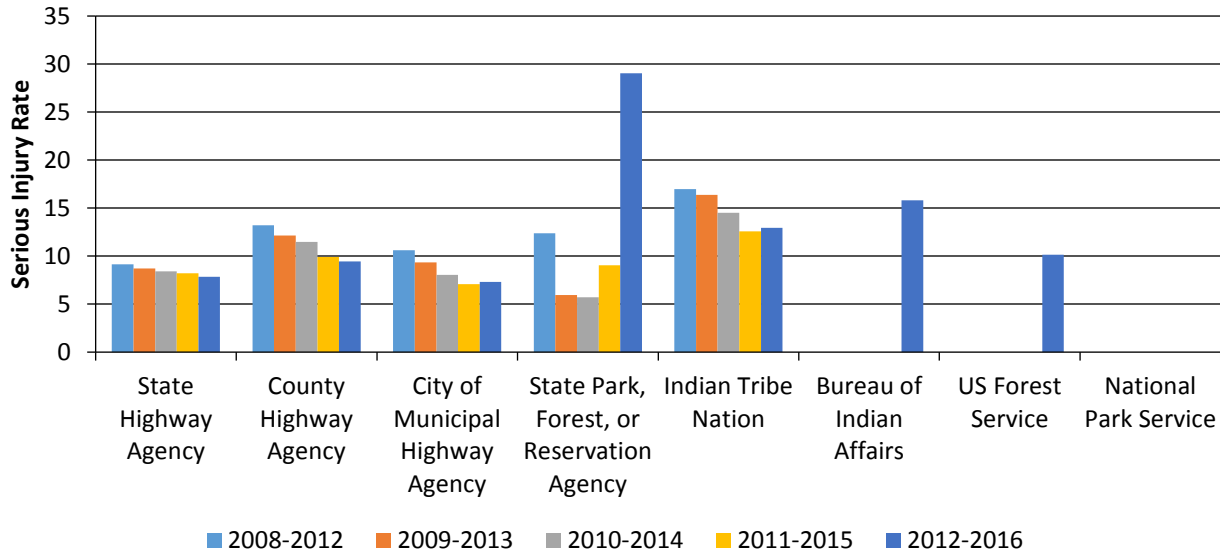
Number of Serious Injuries by Roadway Ownership 5 Year Average



Fatality Rate (per HMVMT) by Roadway Ownership 5 Year Average



Serious Injury Rate (per HMVMT) by Roadway Ownership Ownership 5 Year Average



Enter additional comments here to clarify your response for this question or add supporting information.

Are there any other aspects of the general highway safety trends on which the State would like to elaborate?

No

Safety Performance Targets
Safety Performance Targets

Calendar Year 2018 Targets *

Number of Fatalities 192.6

Describe the basis for established target, including how it supports SHSP goals.

The 2018 Target is based on the 5-year rolling average using historical trends. This supports the SHSP (known at the Comprehensive Highway Safety Plan (CHSP) in Montana) by working towards the overall Vision Zero Goal and an interim safety goal of halving fatalities and serious injures from 1,705 in 2007 to 852 in 2030.

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Number of Serious Injuries 925.2

Describe the basis for established target, including how it supports SHSP goals.

The 2018 Target is based on the 5-year rolling average using historical trends. This supports the SHSP (known at the Comprehensive Highway Safety Plan (CHSP) in Montana) by working towards the overall Vision Zero Goal and an interim safety goal of halving fatalities and serious injures from 1,705 in 2007 to 852 in 2030.

Fatality Rate 1.527

Describe the basis for established target, including how it supports SHSP goals.

The 2018 Target is based on the 5-year rolling average using historical trends. This supports the SHSP (known at the Comprehensive Highway Safety Plan (CHSP) in Montana) by working towards the overall Vision Zero Goal and an interim safety goal of halving fatalities and serious injures from 1,705 in 2007 to 852 in 2030.

Serious Injury Rate 7.338

Describe the basis for established target, including how it supports SHSP goals.

The 2018 Target is based on the 5-year rolling average using historical trends. This supports the SHSP (known at the Comprehensive Highway Safety Plan (CHSP) in Montana) by working towards the overall Vision Zero Goal and an interim safety goal of halving fatalities and serious injures from 1,705 in 2007 to 852 in 2030.

Total Number of Non-Motorized Fatalities and Serious Injuries 72.5

Describe the basis for established target, including how it supports SHSP goals.

The 2018 Target is based on the 5-year rolling average using historical trends. This supports the SHSP (known at the Comprehensive Highway Safety Plan (CHSP) in Montana) by working towards the overall Vision Zero Goal and an interim safety goal of halving fatalities and serious injures from 1,705 in 2007 to 852 in 2030.

Enter additional comments here to clarify your response for this question or add supporting information.

Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.

MDT Staff coordinated with the Comprehensive Highway Safety Plan (CHSP) Members at the Advisory Committee Meeting in May 2017. This included representatives from MDT, FHWA, MHP (Montana Highway Patrol), MPO's, Tribal Governments, Montana Office of Public Instruction, Montana Department of Public Health and Human Services and Non-Motorized Non-Profit Organizations. Members established the new non-motorized safety performance target as part of that meeting.

Does the State want to report additional optional targets?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?

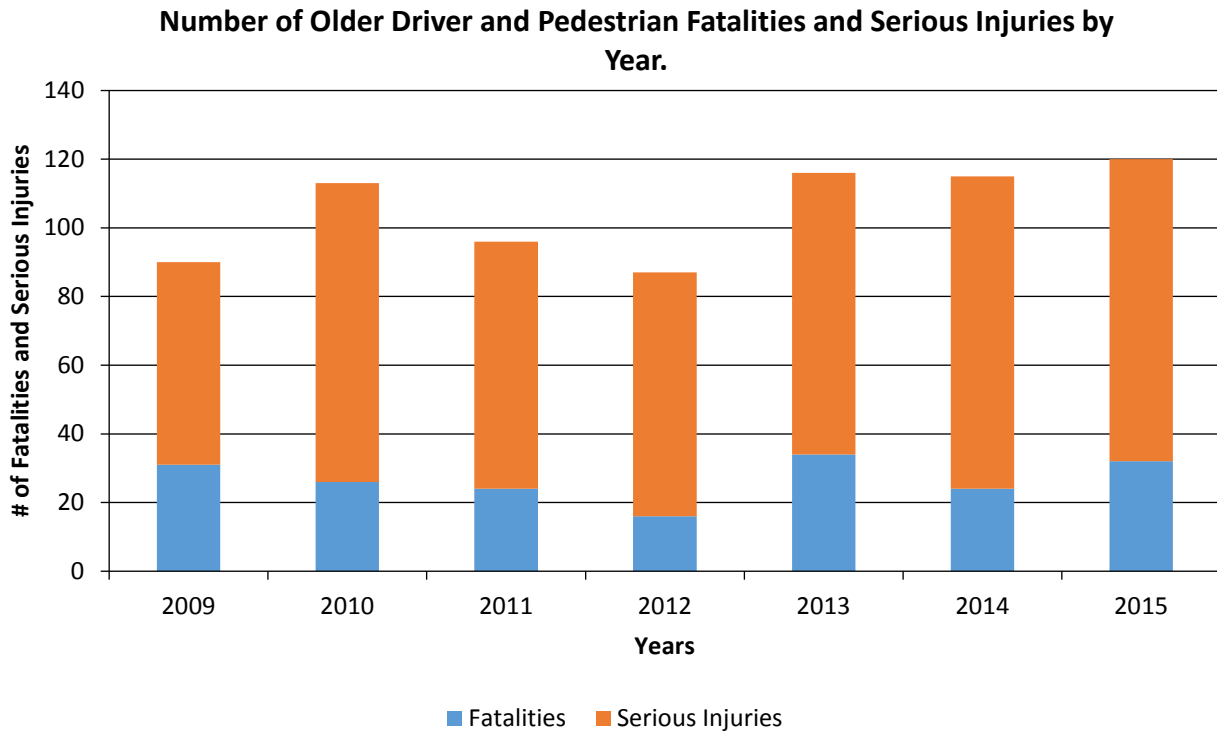
Yes

Enter additional comments here to clarify your response for this question or add supporting information.

For the 2016 HSIP List, MDT used the following methodology to determine HRRR projects. These projects were based on the route being functionally classified as a rural major collector, rural minor collector or a rural local road.

Provide the number of older driver and pedestrian fatalities and serious injuries for the past seven years.

PERFORMANCE MEASURES	2009	2010	2011	2012	2013	2014	2015
Number of Older Driver and Pedestrian Fatalities	31	26	24	16	34	24	32
Number of Older Driver and Pedestrian Serious Injuries	59	87	72	71	82	91	88



Enter additional comments here to clarify your response for this question or add supporting information.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

Other-Observational before/after studies

Enter additional comments here to clarify your response for this question or add supporting information.

MDT utilizes observational before/after studies to evaluate the effectiveness of a particular safety improvement or groups of improvements. An observational before/after study requires crash data and volume data from both before and after the installation of a safety improvement.

MDT has elected to evaluate the HSIP based on groups of similar projects on an annual basis. At this time, the evaluation process focuses on nominated projects having a construction and construction engineering (CN+CE) cost exceeding \$100,000. Additional evaluations or site specific evaluations are completed on a case-by-case basis. Typically, a minimum of 5-years of after data is used for the treatment sites.

The following steps highlight the process for MDT's annual evaluation of safety improvements. It is not meant to be all encompassing and is meant to be a living process. Modifications to the following process will be made as additional data sets and analysis tools are available.

1. Identify completed projects with a construction plus construction engineering (CN+CE) cost of greater than \$100,000 and which have sufficient crash data following completion of the project.
2. Group the projects completed in the identified year by improvement type. The following project groups are identified to guide the evaluation:
 - a. Geometric improvements at a specific location (curve realignment or shoulder widening as examples);
 - b. Slope flattening or elimination of roadside hazards;
 - c. Signing, striping and delineation including the installation of warning flashers;
 - d. Installation of guardrail;

Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

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This method of program level evaluation is new to MDT with only a few years of actual results. With MDT's recent Roadway Departure Study and newly implemented Intersection Safety Study, the program level evaluation will continue to be improved upon each year. One challenge of this form of program level evaluation is for low volume roads where 10 years of data is needed to determine a crash trend and ultimately a project being constructed. In addition, MDT's evaluation is based on 5 years "before" and "after" data which may not correspond with the original trend identification due to the regression to the mean. Consequently, the naïve before/after study may not produce results that are consistent with the anticipated CMF that was used.

What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

Increased awareness of safety and data-driven process
 Increased focus on local road safety
 HSIP Obligations

Enter additional comments here to clarify your response for this question or add supporting information.

Another method MDT uses to indicate the HSIP Program's Success is the ability to identify and obligate HSIP Funds to address safety needs throughout the state on all public roads. MDT's HSIP Funding has grown over the last several years which has allowed MDT to identify and fund more significant size safety projects. This has included large infrastructure type projects, including several roundabouts on non-MDT routes (local road safety).

The HSIP Program's success has also increased the awareness of safety within the agency as a whole. This has translated into more collaboration between bureaus as other projects are designed and implemented benefiting both the safety program and ultimately the traveling public.

Are there any significant programmatic changes that have occurred since the last reporting period?

No

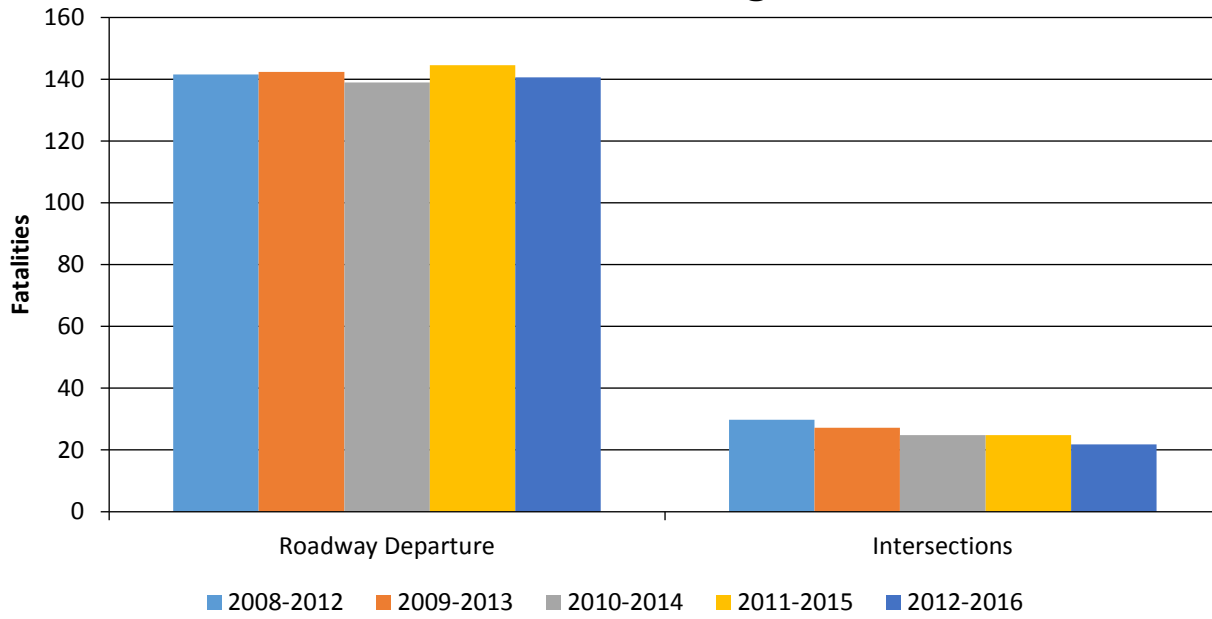
Effectiveness of Groupings or Similar Types of Improvements

Present and describe trends in SHSP emphasis area performance measures.

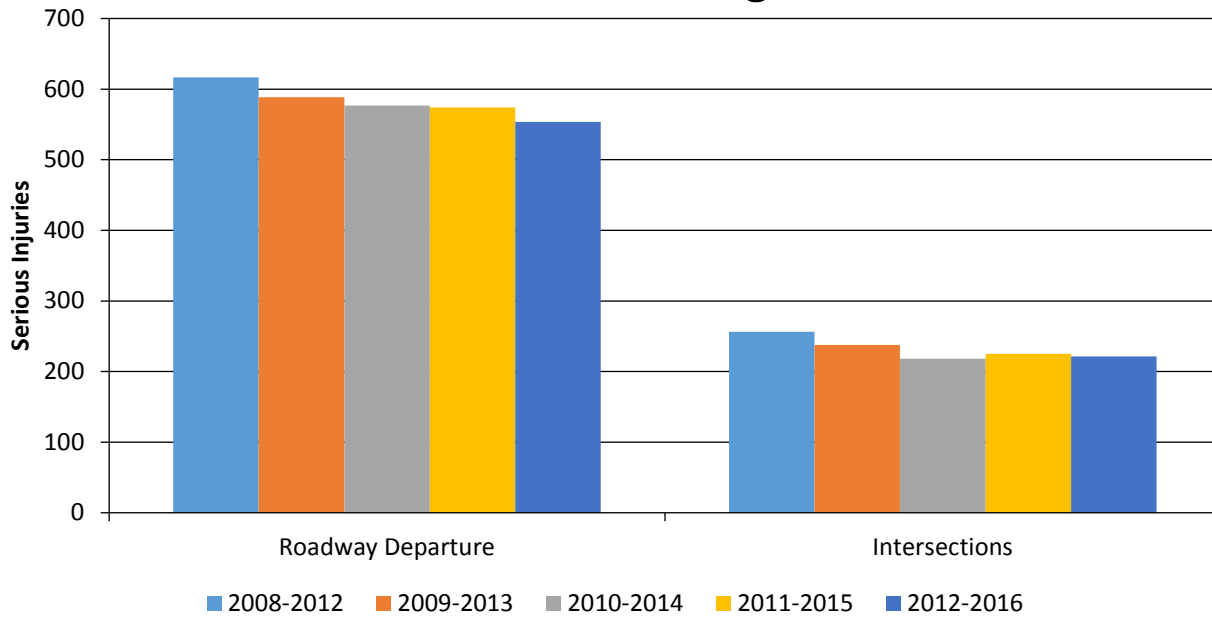
Year 2016

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)	Other 1	Other 2	Other 3
Roadway Departure		140.6	553.8	1.15	4.56			
Intersections		21.8	221.4	0.18	1.82			

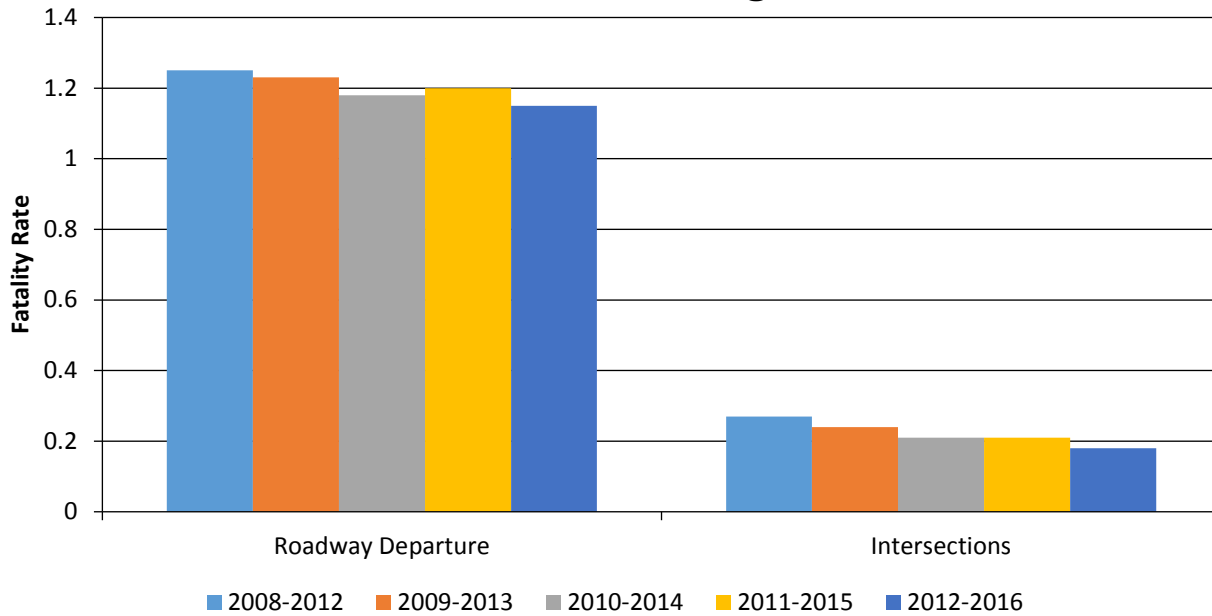
Number of Fatalities 5 Year Average



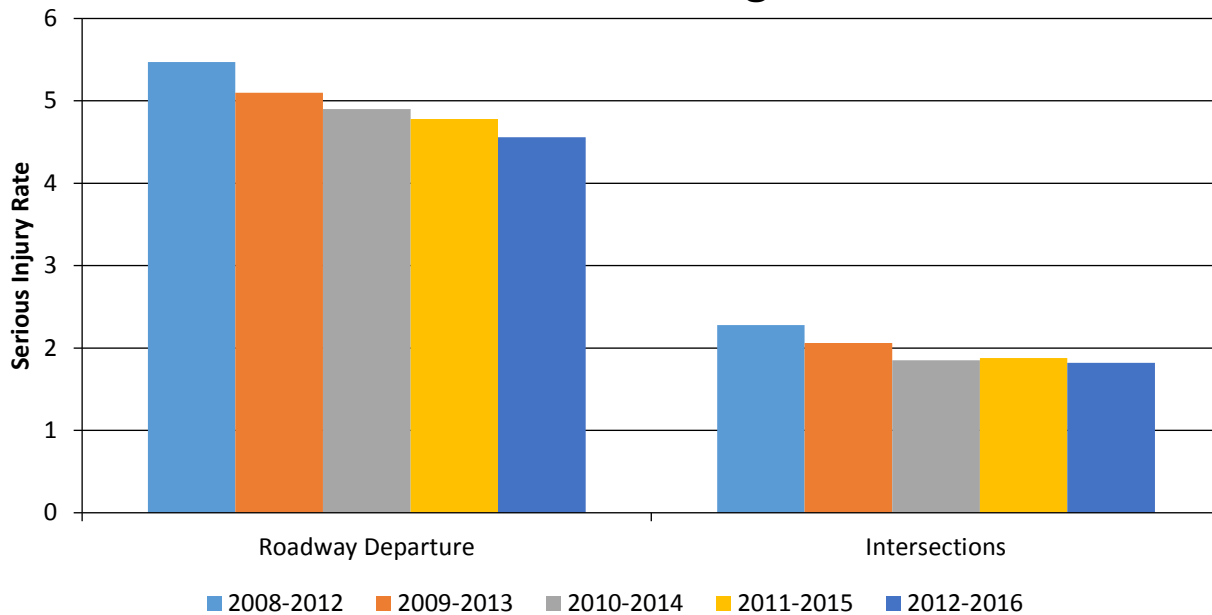
Number of Serious Injuries 5 Year Average



Fatality Rate (per HMVMT) 5 Year Average



Serious Injury Rate (per HMVMT) 5 Year Average



Enter additional comments here to clarify your response for this question or add supporting information.

2015 Rates were updated based on MDT Planning's Division updating the 2015 AVMT after the 2016 HSIP was submitted.

2017 Montana Highway Safety Improvement Program

Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Project Effectiveness

Provide the following information for previously implemented projects that the State evaluated this reporting period.

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL INJURY BEFORE	ALL INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
None														
Statewide	Multiple Sites - various road functional classes	Alignment	Alignment - other	20.00	17.00	1.00		3.00	3.00	10.00	8.00	34.00	28.00	0.94
Statewide	Multiple Sites - various road functional classes	Roadway signs and traffic control	Roadway signs (including post) - new or updated	193.00	114.00	7.00	1.00	18.00	8.00	61.00	35.00	279.00	158.00	103.56
Great Falls District	Rural Local Road or Street	Intersection traffic control		3.00	5.00	1.00				4.00	2.00	8.00	7.00	3.11
Statewide	Multiple Sites - various road functional classes	Roadside	Barrier - other	2.00							1.00	2.00	1.00	0.24

Enter additional comments here to clarify your response for this question or add supporting information.

MDT has a process to evaluate safety projects. At this time, the 2017 evaluation has not been completed and therefore it not referenced or included in this report. MDT's 2016 evaluation results are included. These are for a simple before / after study using 5 years of before/after data. In addition, small projects with similar scope have been grouped together for analysis.

The challenge of completing a simple before/after study is that the 5-year before period may not be representative of the crashes that initiated the safety improvements or the data may be skewed due to the randomness of crashes on low volume roads.

Are there any other aspects of the overall HSIP effectiveness on which the State would like to elaborate?

No

Compliance Assessment

What date was the State’s current SHSP approved by the Governor or designated State representative?

05/01/2015

What are the years being covered by the current SHSP?

From: 2015 To: 2020

When does the State anticipate completing it’s next SHSP update?

2020

Enter additional comments here to clarify your response for this question or add supporting information.

THE SHSP (CHSP) was signed off in May 2015 by MDT Agency Director Michael Tooley.

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT										
Segment Identifier (12)	100	100					100	100	100	100
Route Number (8)	100	100								
Route/Street Name (9)	100	100								
Federal Aid/Route Type (21)	100	100								
Rural/Urban Designation (20)	100	100					100	100		
Surface Type (23)	100	100					100	100		
Begin Point Segment Descriptor (10)	100	100					100	100	100	100
End Point Segment Descriptor (11)	100	100					100	100	100	100
Segment Length (13)	100	100								
Direction of Inventory (18)	100	100								
Functional Class (19)	100	100					100	100	100	100
Median Type (54)	100	100								

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MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
Access Control (22)	100	100								
One/Two Way Operations (91)	100	100								
Number of Through Lanes (31)	100	100					100	100		
Average Annual Daily Traffic (79)	100	100					100	100		
AADT Year (80)	100	100								
Type of Governmental Ownership (4)	100	100					100	100	100	100
INTERSECTION										
Unique Junction Identifier (120)			100	100						
Location Identifier for Road 1 Crossing Point (122)			100	100						
Location Identifier for Road 2 Crossing Point (123)			100	100						
Intersection/Junction Geometry (126)			100	100						
Intersection/Junction Traffic Control (131)			5	5						
AADT for Each Intersecting Road (79)			100	100						
AADT Year (80)			100	100						
Unique Approach Identifier (139)			100	100						
INTERCHANGE/RAMP										
Unique Interchange Identifier (178)					100	100				
Location Identifier for Roadway at Beginning of Ramp Terminal (197)					100	100				
Location Identifier for Roadway at Ending Ramp Terminal (201)					100	100				
Ramp Length (187)					100	100				
Roadway Type at Beginning of Ramp Terminal (195)					100	100				

2017 Montana Highway Safety Improvement Program

MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
Roadway Type at End Ramp Terminal (199)					100	100				
Interchange Type (182)					100	100				
Ramp AADT (191)					100	100				
Year of Ramp AADT (192)					100	100				
Functional Class (19)					100	100				
Type of Governmental Ownership (4)					100	100				
Totals (Average Percent Complete):	100.00	100.00	88.13	88.13	100.00	100.00	100.00	100.00	100.00	100.00

Enter additional comments here to clarify your response for this question or add supporting information.

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

Montana is missing one required MIRE fundamental data element. This is the planned schedule to acquire the MIRE FDE Intersection/Junction Traffic Control Element:

- MDT will perform analyses to determine the number and location of the intersections on Non-local paved roads - by 7/31/2017
- MDT will develop a plan and guidance documentation to collect the data element - by 8/31/2017
- MDT will collect the data element using in-house roadway images, Google Street View and field observation efforts - by 12/31/2019
- MDT will qa/qc the collected data, format and load into our MIRE database - by 12/31/2020

Provide the suspected serious injury identifier, definition and attributes used by the State for both the crash report form and the crash database using the table below. Please also indicate whether or not these elements are compliant with the MMUCC 4th edition criteria for data element P5. Injury Status, suspected serious injury.

CRITERIA	SUSPECTED SERIOUS INJURY IDENTIFIER(NAME)	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY DEFINITION	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY ATTRIBUTES(DESCRIPTORS)	MMUCC 4TH EDITION COMPLIANT *
Crash Report Form	Incapacitating Injury	Yes	N/A	Yes	N/A	Yes
Crash Report Form Instruction Manual	Incapacitating Injury	Yes	Suspected Serious Injury - Any injury other than fatal which results in one or more of the following attributes:	Yes	<ul style="list-style-type: none"> - Severe laceration resulting in exposure of underlying tissues/muscle/organ resulting in significant loss of blood -Broken or distorted extremity (arm or leg) <ul style="list-style-type: none"> - crush injuries - Suspected skull, chest or abdominal injury other than bruises or minor lacerations <ul style="list-style-type: none"> - Significant burns (second and third degree burns over 10% or more of the body) - Unconsciousness when taken from the crash scene - Paralysis 	Yes

2017 Montana Highway Safety Improvement Program

CRITERIA	SUSPECTED SERIOUS INJURY IDENTIFIER(NAME)	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY DEFINITION	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY ATTRIBUTES(DESCRIPTORS)	MMUCC 4TH EDITION COMPLIANT *
Crash Database	Incapacitating Injury	Yes	N/A	Yes	N/A	Yes
Crash Database Data Dictionary	Incapacitating Injury	Yes	Determined by officer / No changes in crash database	Yes	N/A	Yes

Enter additional comments here to clarify your response for this question or add supporting information.

Did the State conduct an HSIP program assessment during the reporting period?

Yes

Describe the purpose and outcomes of the State's HSIP program assessment.

In January 2017, MDT met with the Montana FHWA Division Office to assess MDT's HSIP program. Items discussed included MDT's Program Manual, HRRR Special Rule and the EDC4 Initiative: Data Driven Safety Analysis - Baseline Assessment. One of the outcomes of this assessment was MDT moving forward with selecting a Consultant to develop the Safety Manual for the Agency.

Optional Attachments

Program Structure:

Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

[Intr-Jct Traffic Control Collection Plan.docx](#)

Glossary

5 year rolling average	means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).
Emphasis area	means a highway safety priority in a State’s SHSP, identified through a data-driven, collaborative process.
Highway safety improvement project	means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.
HMVMT	means hundred million vehicle miles traveled.
Non-infrastructure projects	are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.
Older driver special rule	applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.
Performance measure	means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.
Programmed funds	mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.
Roadway Functional Classification	means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.
Strategic Highway Safety Plan (SHSP)	means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.
Systematic	refers to an approach where an agency deploys countermeasures at all locations across a system.
Systemic safety improvement	means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.
Transfer	means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.