



WYOMING

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

WYDOT has an established HSIP program with processes in place for the collection of data, implementation of projects, and annual reporting requirements. Each fiscal year, historically, Wyoming obligates a majority of their HSIP apportionments, these funds are obligated on projects which are eligible under the requirements of the program. WYDOT effectively manages the HSIP and their Highway Safety Program manager is responsible for both the behavioral and engineering aspects of the program, reporting to both NHTSA and FHWA. This overarching management of the program provides for a consistent approach to addressing safety needs throughout the State. The Highway Safety Program continues to be very process driven and consistent when approaching HSIP projects and reporting requirements. WYDOT currently is inconsistent between the Highway Safety Program and other programs within the DOT. Safety elements are often included on projects that are funded through sources other than HSIP. WYDOT is working towards a standard process of coordination between programs to ensure that safety projects and safety project elements are being identified and prioritized prior to the funding being utilized. WYDOT is also improving their process for the evaluation of safety benefits from projects which are implemented using HSIP funding. The Safety Management System provides a mechanism for quantifying the benefits of safety treatments which in turn allows for more effective utilization of HSIP funds on future HSIP projects. WYDOT Highway Safety continues to implement the HSIP through strategies, activities, and/or projects on public roads that are consistent with their data driven Strategic Highway Safety Plan (SHSP) with the goal of reducing critical (fatal and serious injury) crashes.

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 is based upon the goals and areas identified in the SHSP. HSIP eligibility policies focus on addressing the greatest safety needs within the State. Rural road safety needs are addressed through the HRRR program (which is a subset of the HSIP) managed through an agreement with the UW LTAP Center. The greatest safety needs are identified through the Safety Management System (SMS) which establishes a mechanism for the prioritization of HSIP funding.

WYDOT considers crash, roadway and traffic data when identifying potential HSIP projects. The SMS allows for various programs and Districts to optimize the use of safety funds on the State's roadways. The SMS allows WYDOT decision makers to identify the locations that warrant attention and then select the most cost effective safety treatments to propose at each potential project location.

WYDOT implements both spot location treatments for high-crash/high-risk locations as well as systemic safety improvement projects. Due to the rural nature of Wyoming the majority of HSIP projects address rural road safety needs. Safety strategies proven to be effective on rural roads are applied using HSIP funds.

Where is HSIP staff located within the State DOT?

Operations

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

How are HSIP funds allocated in a State?

Other-Safety Management System

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

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WYDOT uses its Safety Management System to identify and address safety treatments throughout the State system based on B/C ratio.

Local roads are included in the HSIP through a High Risk Rural Road program which utilizes the Wyoming rural road safety program developed and implemented in cooperation with the University of Wyoming, LTAP center.

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

The local county roads and tribal roads are included in the HSIP by the Wyoming rural road safety program (WRRSP) administered by the UW LTAP center. The program reviews crash and roadway feature data to develop high risk road locations. The work done by the LTAP then includes assistance in putting projects together with the local jurisdictions to address the identified roadway safety needs.

There are two MPO's in Wyoming and they are represented on the Safety Management Committee that identifies emphasis areas for the SHSP. Projects are proposed and developed by the MPO's with regard to their own identified needs and assistance is provided in data and information.

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

Design
Planning
Operations
Governors Highway Safety Office

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

Describe coordination with internal partners.

Internal partners are asked to provide their expertise in the various areas that they represent. The coordination is required at many levels based upon the policies of WYDOT. Information is developed and disseminated by the Highway Safety Office. The information is used to make decisions regarding project programming and design by the other WYDOT programs responsible for that part of the project development and implementation.

Identify which external partners are involved with HSIP planning.

Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
Governors Highway Safety Office
Local Technical Assistance Program
Local Government Agency

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

Describe coordination with external partners.

WYDOT is structured with the WHP and Governors Rep for Highway Safety (NHTSA) within its organization. The Highway Safety Office chairs a Safety Management Committee that meets 3-4 times per year to discuss, investigate, plan and direct the numerous safety partners throughout the state on the SHSP and other higher level issues regarding Highway Safety.

Program areas and strategies are discussed to assist other safety partners in their efforts to reduce fatal and serious injury crashes in the State.

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.

The Highway Safety Office has been the lead in developing a Safety Management System (SMS) for WYDOT. The SMS is maturing rapidly and becoming the go to place for counter measures and projects that have higher benefit/cost ratios. The SMS is based upon the principles contained in the Highway Safety Manual and is very dependent upon data. The SMS development has been a long process but it is now on the verge of driving the HSIP project selection process for WYDOT.

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.

WYDOT has an operating policy regarding Highway Safety that needs updating as the Safety Management System becomes more widely used for Planning, Implementation and Evaluation of the HSIP.

Select the programs that are administered under the HSIP.

2017 Wyoming Highway Safety Improvement Program
 Intersection
 Horizontal Curve
 Roadway Departure
 Low-Cost Spot Improvements
 Sign Replacement And Improvement
 Local Safety
 Other-Guardrail upgrade/replacement

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

Program: Horizontal Curve

Date of Program Methodology: 10/9/2009

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	Exposure	Roadway
All crashes		Horizontal curvature
Fatal crashes only	Traffic	Functional classification
Fatal and serious injury crashes only	Volume	Roadside features

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

Crash frequency
 Relative severity index
 Probability of specific crash types

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-District and Traffic operations input

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).

Rank of Priority Consideration

Ranking based on B/C : 2

Available funding : 1

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

Program: Intersection

Date of Program Methodology: 10/9/2011

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	Exposure	Roadway
All crashes		Functional classification
Fatal crashes only	Traffic	Other-Rural Intersections and the
Fatal and serious injury crashes only	Volume	type of traffic control present for example signalized or not

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

Crash frequency

Probability of specific crash types

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

2017 Wyoming Highway Safety Improvement 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.

Rural off sytem intersections are studied independently from on system intersections. Urban intersections are also studied within the community that they exist. A statewide program does not currently exist.

How are projects under this program advanced for implementation?

Other-Disrtict and Traffic operations input

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).

Rank of Priority Consideration

Available funding : 1

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

Program: Local Safety

Date of Program Methodology: 10/9/2008

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

Other-HRRR subset of HSIP

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

Funding set-aside

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

Crashes

Exposure

Roadway

All crashes

Traffic
Volume

Other-A simple roadway drive
through rating is used to identify

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

Crash frequency
Probability of specific crash types
Excess proportions of specific crash types

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.

The Wyoming Rural Road Safety Program (WRRSP) utilizes crash data and drive through surveys to rank and prioritize local road safety needs and assists in identifying projects to address needs.

How are projects under this program advanced for implementation?

Competitive application process
selection committee

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).

Rank of Priority Consideration

Available funding : 2
Cost Effectiveness : 1

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

Program: Low-Cost Spot Improvements

Date of Program Methodology: 10/9/2011

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]

2017 Wyoming Highway Safety Improvement Program

Competes with all projects

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

Crashes

Exposure

Roadway

All crashes

Fatal crashes only

Fatal and serious injury crashes only

Traffic

Volume

Horizontal curvature

Functional classification

Roadside features

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

Crash frequency

Relative severity index

Crash rate

Critical rate

Probability of specific crash types

Excess proportions of specific crash types

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?

No

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

The Wyoming Rural Road Safety Program (WRRSP) utilizes crash data and drive through surveys to rank and prioritize local road safety needs and assists in identifying projects to address needs.

How are projects under this program advanced for implementation?

Other-District and Traffic operations input

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).

Rank of Priority Consideration

Ranking based on B/C : 1

Available funding : 2

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

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Program: Roadway Departure

Date of Program Methodology: 10/9/2006

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	Exposure	Roadway
All crashes		Horizontal curvature
Fatal crashes only	Traffic	Functional classification
Fatal and serious injury crashes only	Volume	Roadside features

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

Crash frequency
Relative severity index
Crash rate
Critical rate
Probability of specific crash types
Excess proportions of specific crash types

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.

The local roads utilize specific studies to determine project needs.

How are projects under this program advanced for implementation?

Other-District and Traffic operations input

2017 Wyoming Highway Safety Improvement Program

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).

Rank of Priority Consideration

Available funding : 1

Other-Judgement based - some systemic geometric improvements and some crashed based : 2

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

Program: Sign Replacement And Improvement

Date of Program Methodology: 10/9/2008

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

- Addresses SHSP priority or emphasis area
- Other-Systemic approach to Lane Departure/Roadway Departure

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 crashes only	Traffic	Functional classification
Fatal and serious injury crashes only	Volume	Other-Age and condition of signs

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

- Crash frequency
- Relative severity index
- Crash rate
- Critical rate
- Probability of specific crash types
- Excess proportions of specific crash types
- Other-Age of signs in combination with functional classification of the roadway is the main factor

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.

Sign replacement and improvement projects are done through the WRRSP methodology for Counties. For Urban communities these type of projects are done on a corridor basis.

How are projects under this program advanced for implementation?

Other-District and Traffic operatins input

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).

Rank of Priority Consideration

Available funding : 2

Other-Relative age of signage and functional classification : 1

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

Program: Other-Guardrail upgrade/replacement

Date of Program Methodology: 2/2/2015

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

Addresses SHSP priority or emphasis area
Other-Systemic approach to Lane Departure/Roadway Departure

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	Volume	Roadside features

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

Expected crash frequency with EB adjustment

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.

Work with the LTAP center using the WRRSP

How are projects under this program advanced for implementation?

selection committee

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).

Rank of Priority Consideration

Available funding : 1

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

What percentage of HSIP funds address systemic improvements?

70

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

Cable Median Barriers

Rumble Strips

Traffic Control Device Rehabilitation

Pavement/Shoulder Widening

Install/Improve Signing

Install/Improve Pavement Marking and/or Delineation

Upgrade Guard Rails

Clear Zone Improvements

Install/Improve Lighting

Add/Upgrade/Modify/Remove Traffic Signal

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

Other-Use of Crash Information to identify over-represented crash types to be addressed

Other-Safety Management System

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?

Yes

Describe how the State HSIP considers connected vehicles and ITS technologies.

Projects included in the HSIP address information to drivers about roadway conditions primarily in winter weather. Also variable speed limits and other communication technologies are part of the HSIP.

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.

HSM methodologies are part of the Safety Management System. The Safety Management System was developed based upon the HSM.

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

No

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

No

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

Federal Fiscal Year

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

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$12,638,001	\$9,850,948	77.95%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$0	\$0	0%
Penalty Funds (23 U.S.C. 154)	\$4,032,541	\$4,032,541	100%
Penalty Funds (23 U.S.C. 164)	\$5,600,751	\$5,600,751	100%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	\$0	\$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	\$0	\$0	0%
State and Local Funds	\$0	\$0	0%
Totals	\$22,271,293	\$19,484,240	87.49%

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?

10%

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

10%

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

Each year the amount of funding programmed and obligated to local safety projects varies. The targeted amount is 10 %.

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

0%

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

0%

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

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.

WYDOT doesn't have a problem obligating the HSIP funds.

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

No

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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
0261020	Alignment	Horizontal and vertical alignment			\$4386980	\$28165695	HSIP (23 U.S.C. 148)	Urban Minor Arterial	0		City of Municipal Highway Agency	Spot	Local Coordination	Lane Departure
B169036	Intersection traffic control	Intersection traffic control - other			\$1125788	\$1125788	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	0		State Highway Agency	Risk based	Intersections	Local Coordination
B151035	Roadside	Barrier- metal			\$792720	\$792720	HSIP (23 U.S.C. 148)	Various roadways in District 1	0		State Highway Agency	Systemic	Roadway Departure	Systemic - Roadside Improvement
B151109	Shoulder treatments	Shoulder treatments - other			\$247934	\$247934	HSIP (23 U.S.C. 148)	Various Curves in District 1	0		State Highway Agency	Spot	Roadway Departure	Systemic - Curve treatment
B161026	Roadway signs and traffic control	Roadway signs (including post) - new or updated			\$101540	\$111211	HSIP (23 U.S.C. 148)	Various roadways in District 1	0		State Highway Agency	Systemic	Systemic	Coordination with Law Enforcement and Emergency Response
I803149	Roadway signs and traffic control	Roadway signs (including post) - new or updated			\$335121	\$335121	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	0		State Highway Agency	Systemic	Lane Departure	Systemic
0252153	Roadway	Roadway - other			\$3604024	\$9728986	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	0		State Highway Agency	Systemic	Lane Departure	Roadside Improvement
B162034	Roadway delineation	Delineators post-mounted or on barrier			\$142165	\$142165	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	Improve Delineation
B162035	Roadway signs and traffic control	Curve-related warning signs and flashers			\$129853	\$129853	HSIP (23 U.S.C. 148)		0		State Highway Agency	Spot	Lane Departure	Curve Chevrons
B162027	Roadway signs and traffic control	Roadway signs (including post) - new or updated			\$122591	\$122591	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	Coordination with emergency vehicles
I252161	Advanced technology and ITS	Dynamic message signs			\$1655004	\$2600720	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	0		State Highway Agency	Systemic	Systemic Improvements to Information to Drivers	ITS improvements
I254154	Roadside	Roadside - other			\$150335	\$810575	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	0		State Highway Agency	Spot	Lane Departure	Visibility Improvements
I255115	Roadside	Roadside grading			\$938960	\$9906246	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Interstate	0		State Highway Agency	Spot	Lane Departure	Roadside Improvements
2000057	Roadside	Roadside - other			\$202802	\$202802	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Lane Departure	Roadside Improvement
B163028	Roadway signs and traffic control	Roadway signs (including post) - new or updated			\$187977	\$187977	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Lane Departure	Coordination with emergency vehicles
B154021	Roadway signs and traffic control	Roadway signs and traffic control - other			\$219211	\$219211	HSIP (23 U.S.C. 148)	Various Roadways in District 4	0		State Highway Agency	Systemic	Lane Departure	Sign Improvements

2017 Wyoming Highway Safety Improvement Program

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
B164029	Roadway signs and traffic control	Roadway signs (including post) - new or updated			\$103375	\$103375	HSIP (23 U.S.C. 148)	Various Roadways in District 4	0		State Highway Agency	Systemic	Roadway Departure	Coordination with emergency vehicles
B165030	Roadway signs and traffic control	Roadway signs (including post) - new or updated			\$151031	\$151031	HSIP (23 U.S.C. 148)	Various Roadways in District 5	0		State Highway Agency	Systemic	Roadway Departure	Coordination with emergency vehicles
B165022	Roadside	Barrier- metal			\$1160826	\$1160826	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	0		State Highway Agency	Systemic	Roadway Departure	Upgrade guardrail
N332034	Roadside	Barrier- metal			\$1287256	\$1287256	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	0		State Highway Agency	Systemic	Roadway Departure	Upgrade guardrail
0202014	Shoulder treatments	Shoulder grading			\$0	\$2820790	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural Major Collector	0		State Highway Agency	Spot	Roadway Departure	Roadside Improvements
CN10107	Roadway delineation	Longitudinal pavement markings - new			\$110510	\$110510	HSIP (23 U.S.C. 148)	Rural Local Road or Street	0		Indian Tribe Nation	Systemic	Roadway Departure	Improve Pavement Markings
CN10108	Roadside	Barrier- metal			\$14815	\$14815	HSIP (23 U.S.C. 148)	Rural Local Road or Street	0		Indian Tribe Nation	Spot	Roadway Departure	Install guardrail
B169019	Roadway delineation	Longitudinal pavement markings - new			\$1356264	\$1356264	HSIP (23 U.S.C. 148)	Various roadways statewide	0		State Highway Agency	Systemic	Lane Departure	Improve Pavement Markings
HRRR016	Non-infrastructure	Transportation safety planning			\$576087	\$576087	HSIP (23 U.S.C. 148)	Rural Local Road or Street	0		County and Tribal roadways statewide	Statewide Safety Planning	HRRR coordination	Local coordination

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

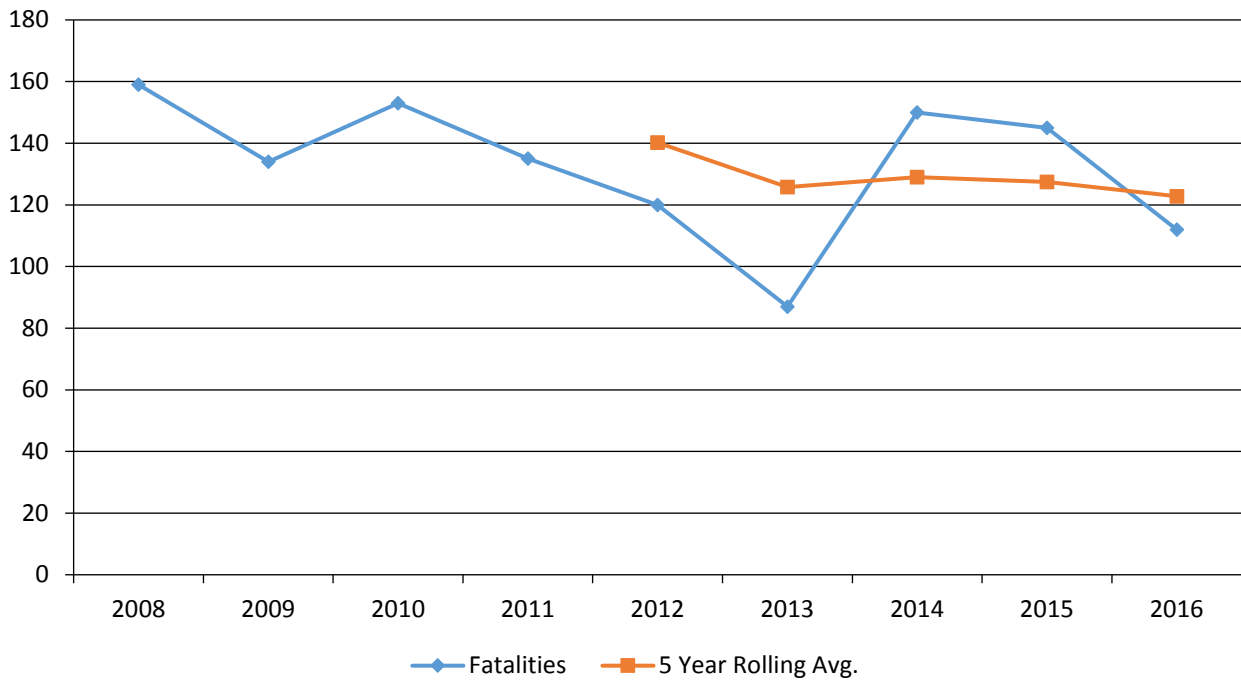
Safety Performance

General Highway Safety Trends

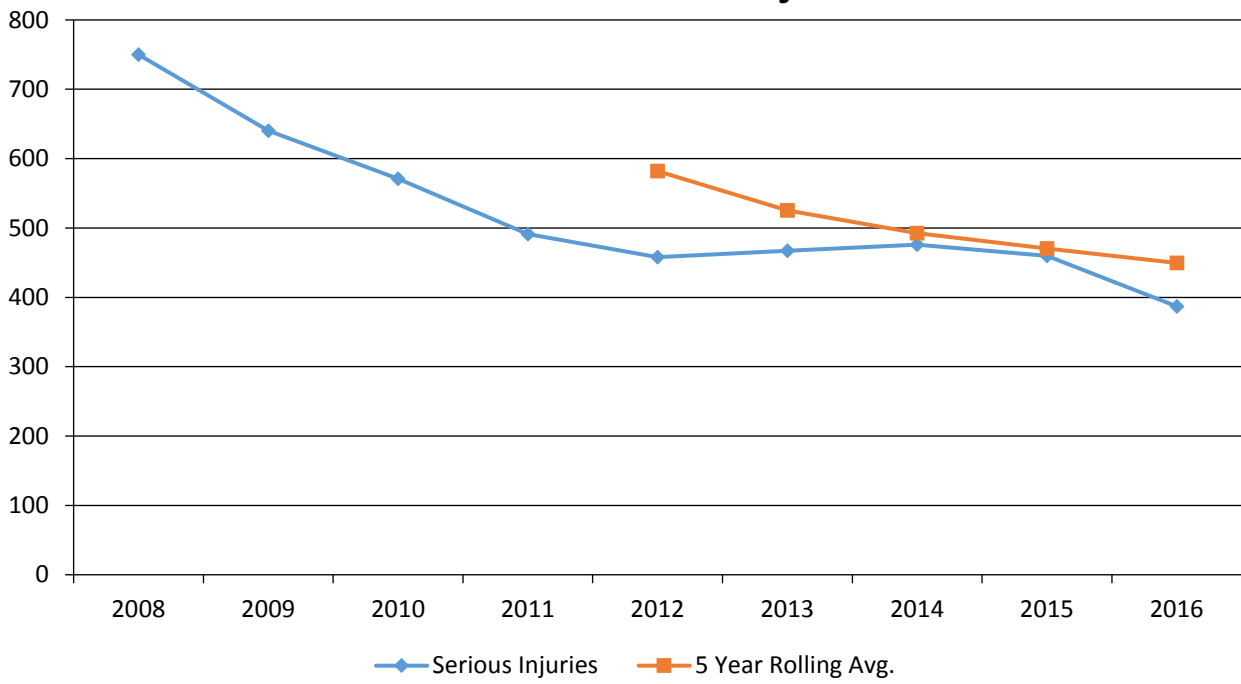
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2008	2009	2010	2011	2012	2013	2014	2015	2016
Fatalities	159	134	153	135	120	87	150	145	112
Serious Injuries	750	640	571	491	458	467	476	460	387
Fatality rate (per HMVMT)	1.710	1.420	1.670	1.490	1.320	0.960	1.600	1.550	1.200
Serious injury rate (per HMVMT)	8.060	6.800	6.220	5.400	5.050	5.160	5.090	4.930	4.160
Number non-motorized fatalities	8	4	3	7	6	4	10	5	6
Number of non-motorized serious injuries	33	22	28	27	22	17	28	20	30

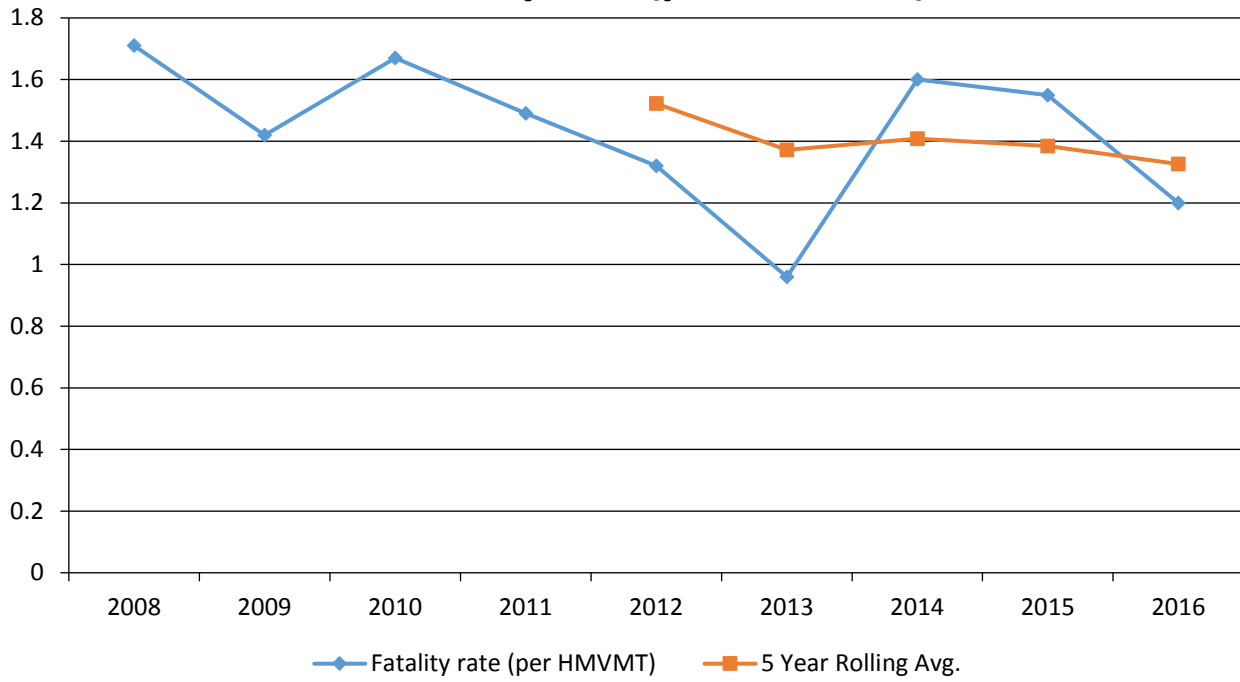
Annual Fatalities



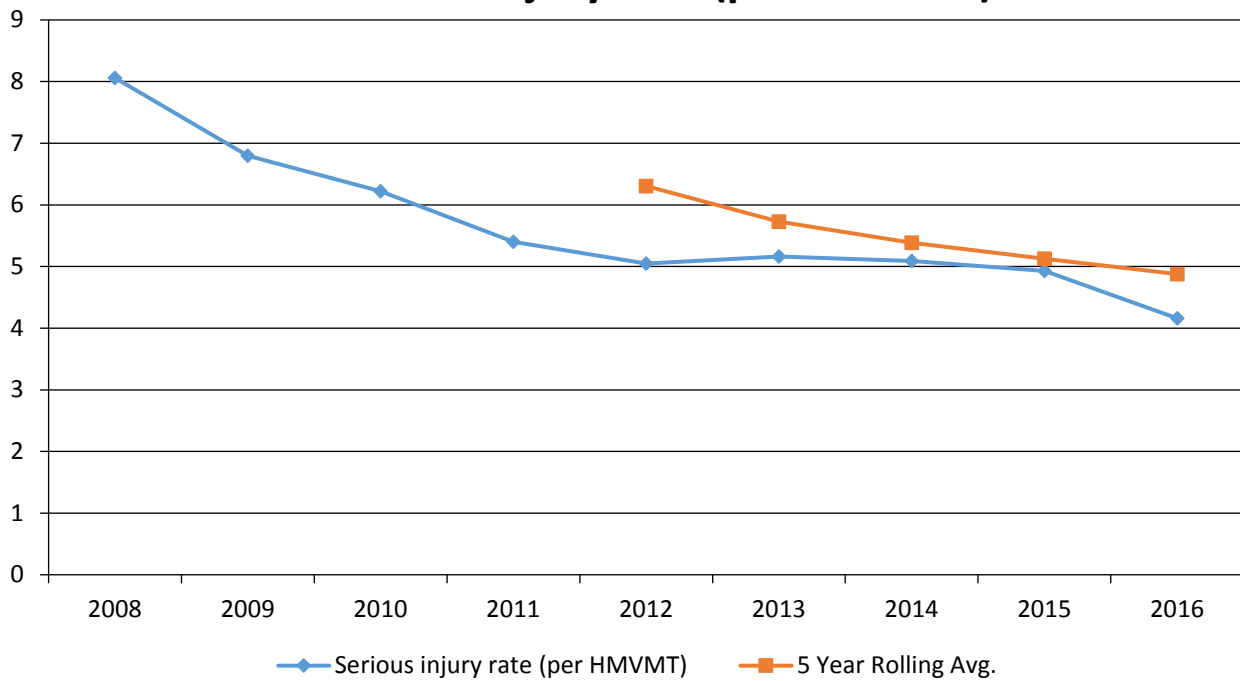
Annual Serious Injuries



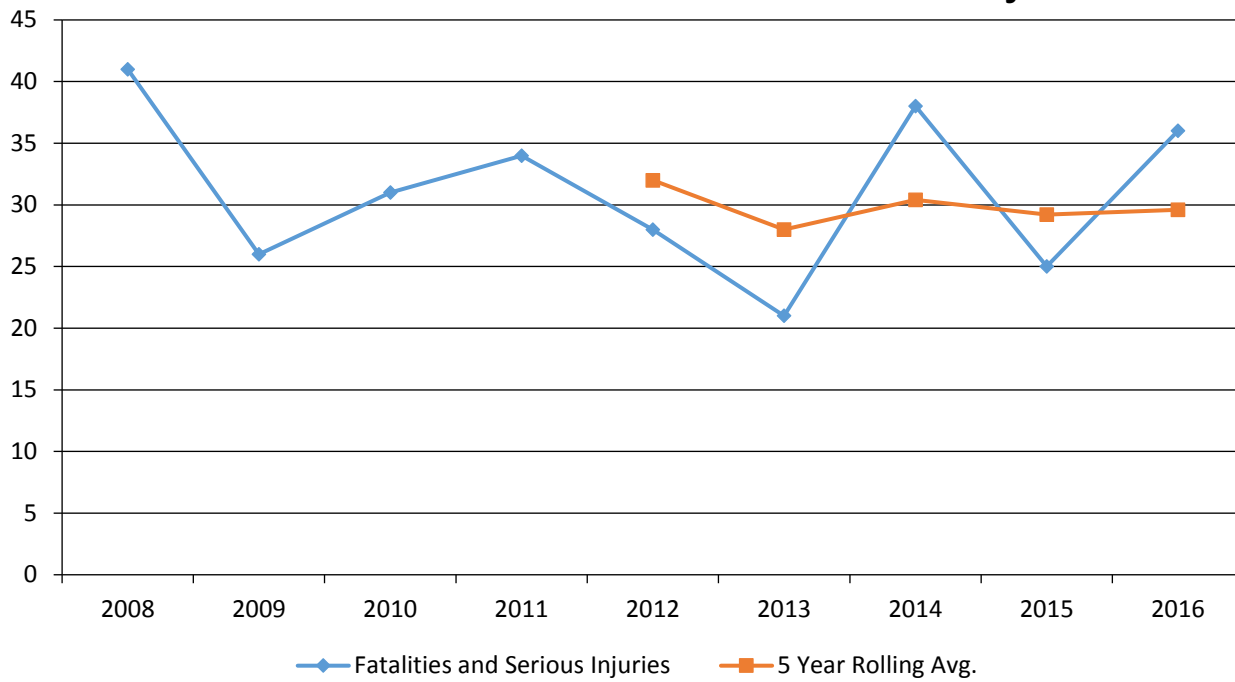
Fatality rate (per HMVMT)



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	25.8	96.2	1.06	3.95
Rural Principal Arterial - Other Freeways and Expressways				
Rural Principal Arterial - Other	37	101	2.21	6.29
Rural Minor Arterial	15.8	49.2	3.41	10.36

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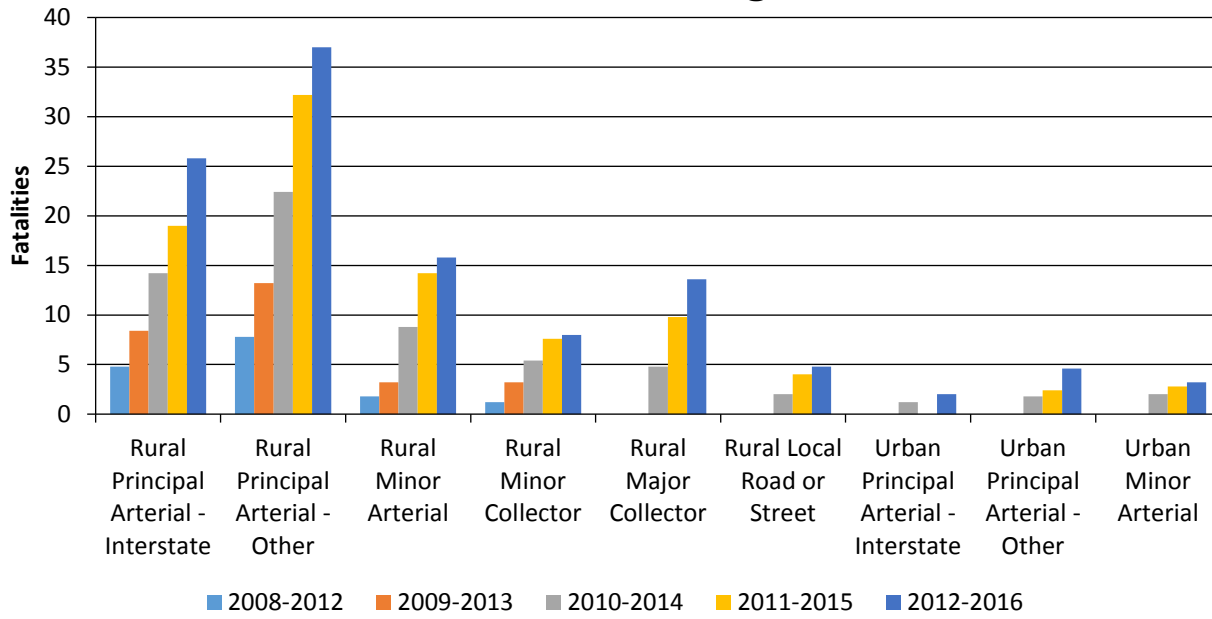
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Minor Collector	8	32.4	11.21	31.66
Rural Major Collector	13.6	30.8	2.61	5.91
Rural Local Road or Street	4.8	12.6	12.7	25.47
Urban Principal Arterial - Interstate	2	10.6	0.37	1.99
Urban Principal Arterial - Other Freeways and Expressways				
Urban Principal Arterial - Other	4.6	24.6	0.65	3.62
Urban Minor Arterial	3.2	16.6	3.74	19.07
Urban Minor Collector				
Urban Major Collector				
Urban Local Road or Street				

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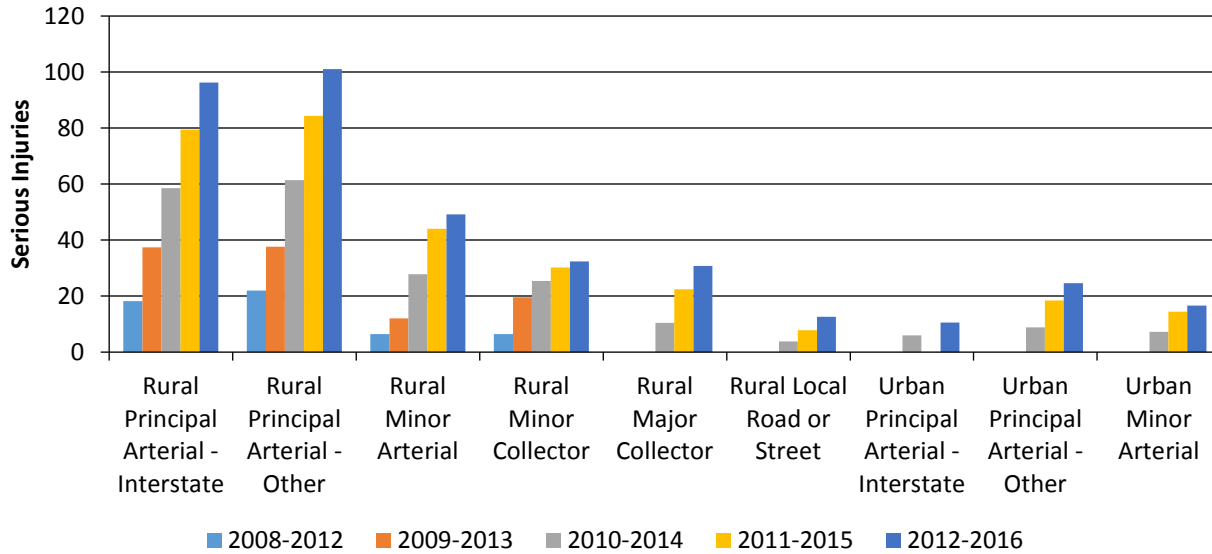
Year 2016

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	99	337.8	0	0
County Highway Agency	10.8	44.6	0	0
Town or Township Highway Agency				
City or Municipal Highway Agency				
State Park, Forest, or Reservation Agency				
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				

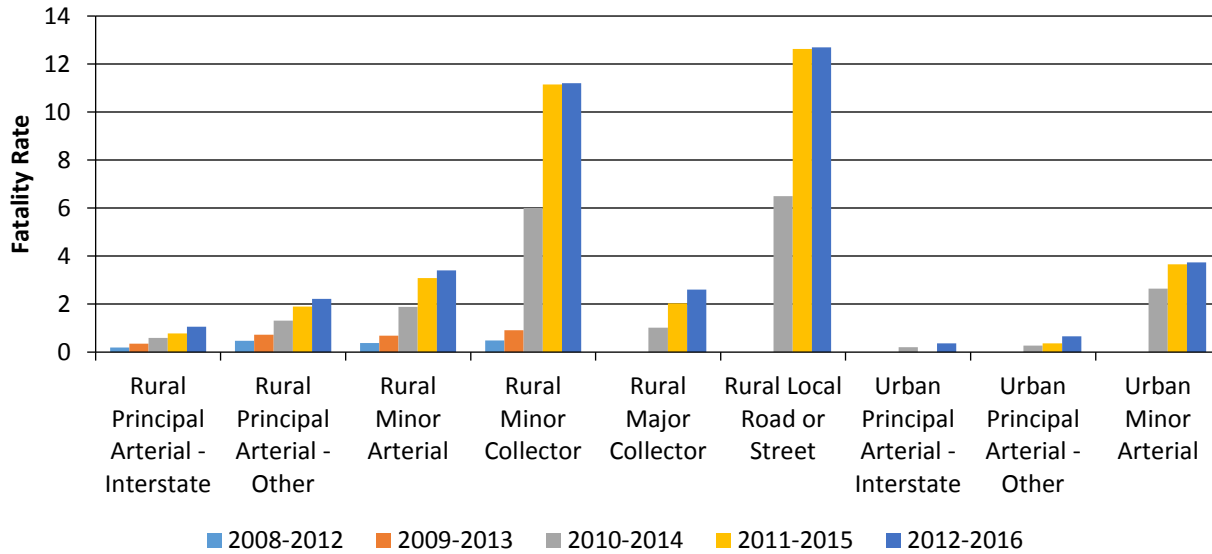
Number of Fatalities by Functional Classification 5 Year Average



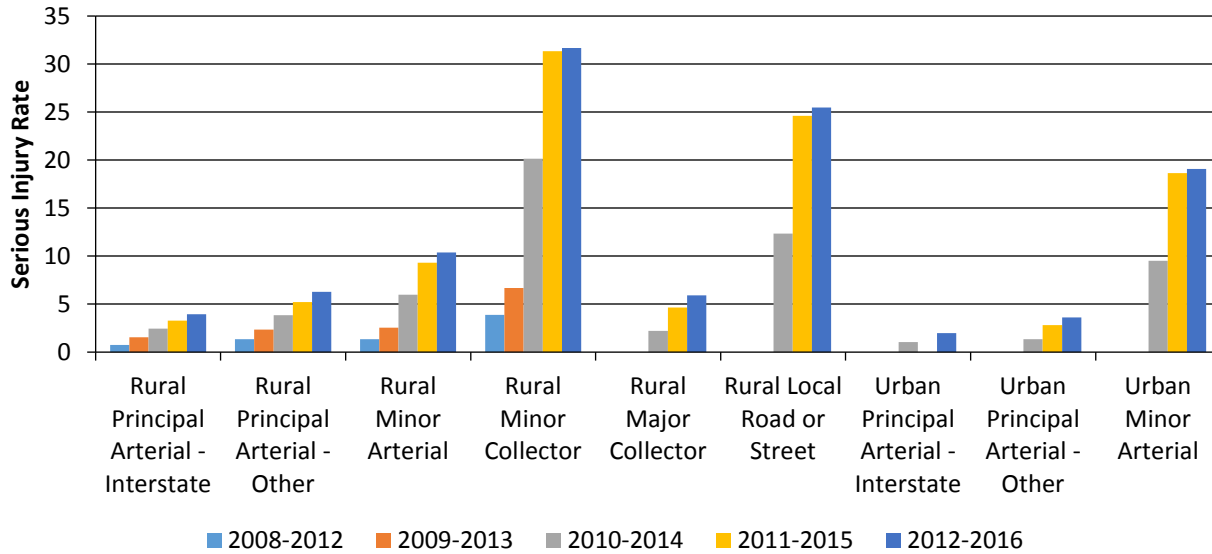
Number of Serious Injuries by Functional Classification 5 Year Average



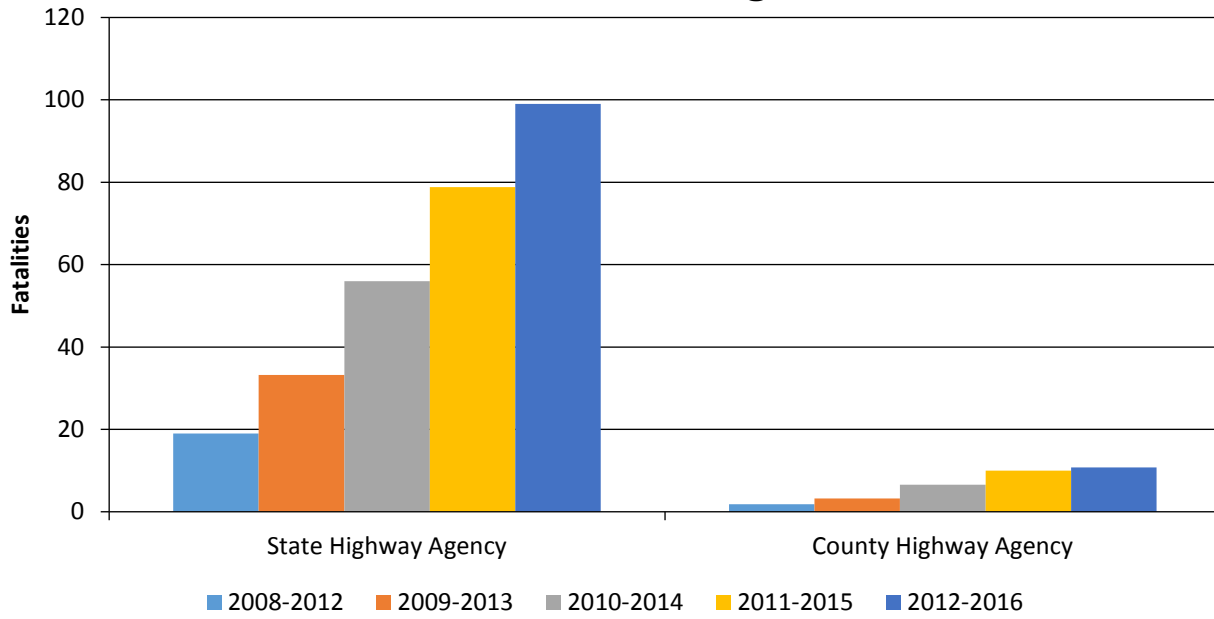
Fatality Rate (per HMVMT) by Functional Classification 5 Year Average



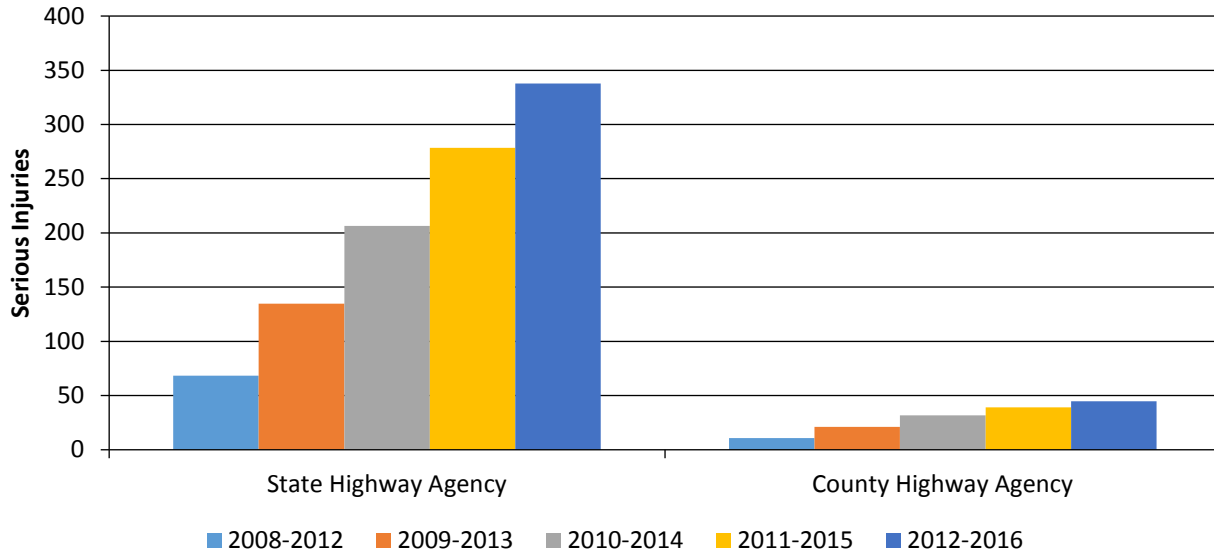
Serious Injury Rate (per HMVMT) by Functional Classification 5 Year Average



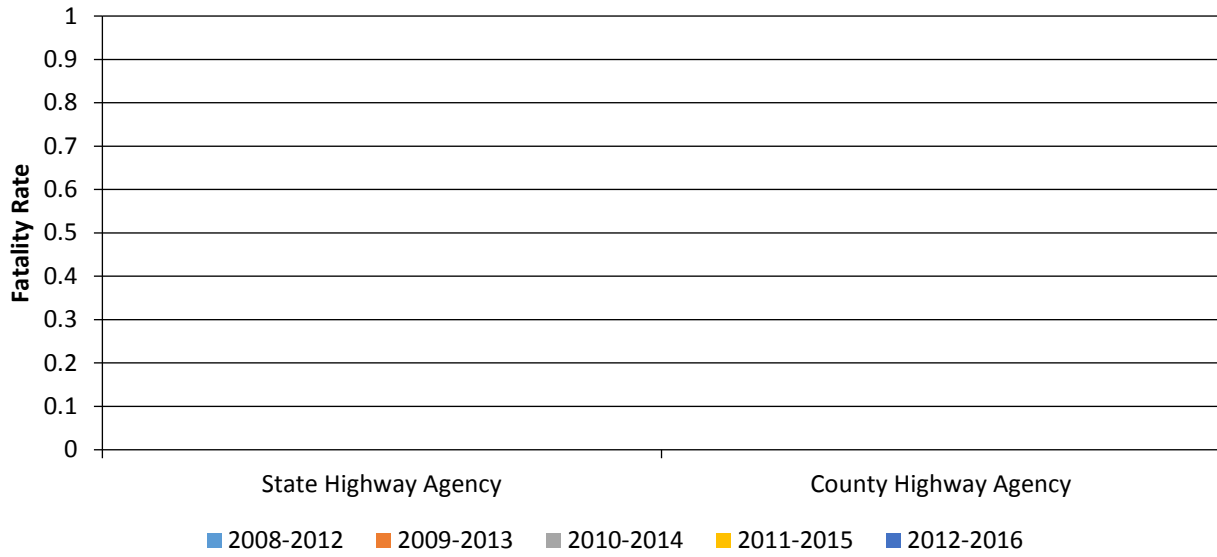
Number of Fatalities by Roadway Ownership 5 Year Average



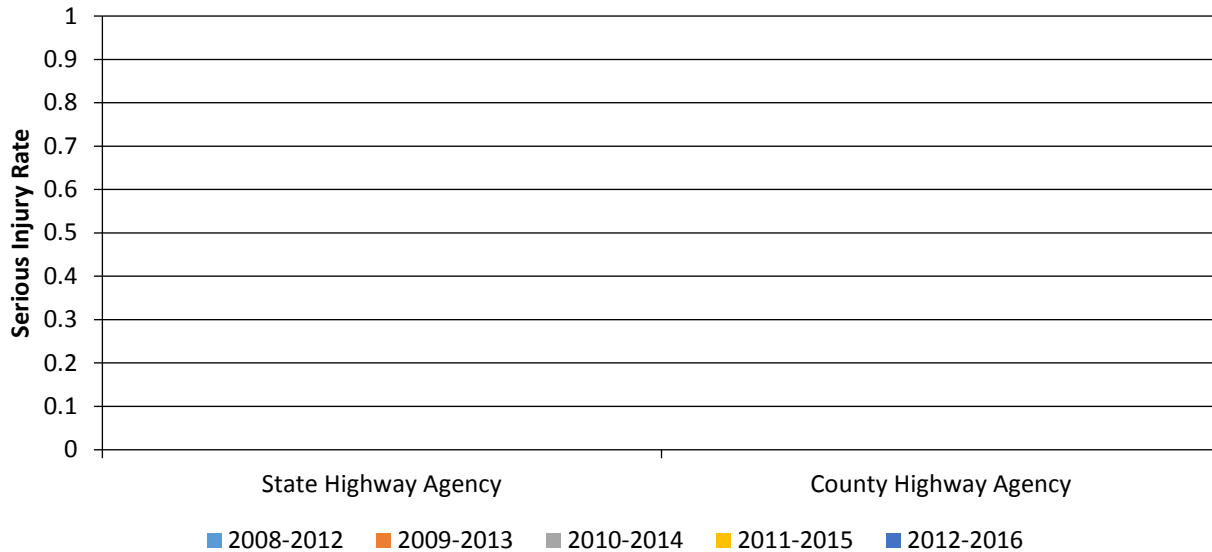
Number of Serious Injuries by Roadway Ownership 5 Year Average



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



Serious Injury Rate (per HMMVT) by Roadway 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

Calendar Year 2018 Targets *

Number of Fatalities 130.0

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

The target was established by coordination with safety partners. The SHSP goal is to reduce fatalities.

Number of Serious Injuries 470.0

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

The target was established by coordination with safety partners. The SHSP goal is to reduce serious injuries.

Fatality Rate 1.400

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

The target was established by coordination with safety partners. The SHSP goal is to reduce fatalities.

Serious Injury Rate 5.440

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

The target was established by coordination with safety partners. The SHSP goal is to reduce serious injuries.

Total Number of Non-Motorized Fatalities and Serious Injuries 30.0

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

The target was established by coordination with safety partners. The SHSP goal is to reduce fatal and serious injuries.

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.

Coordination meetings were held with the two MPO's regarding the establishment of targets for the State. When targets were selected a formal meeting and presentation was conducted. Concurrence was requested regarding the established targets.

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?

2017 Wyoming Highway Safety Improvement Program

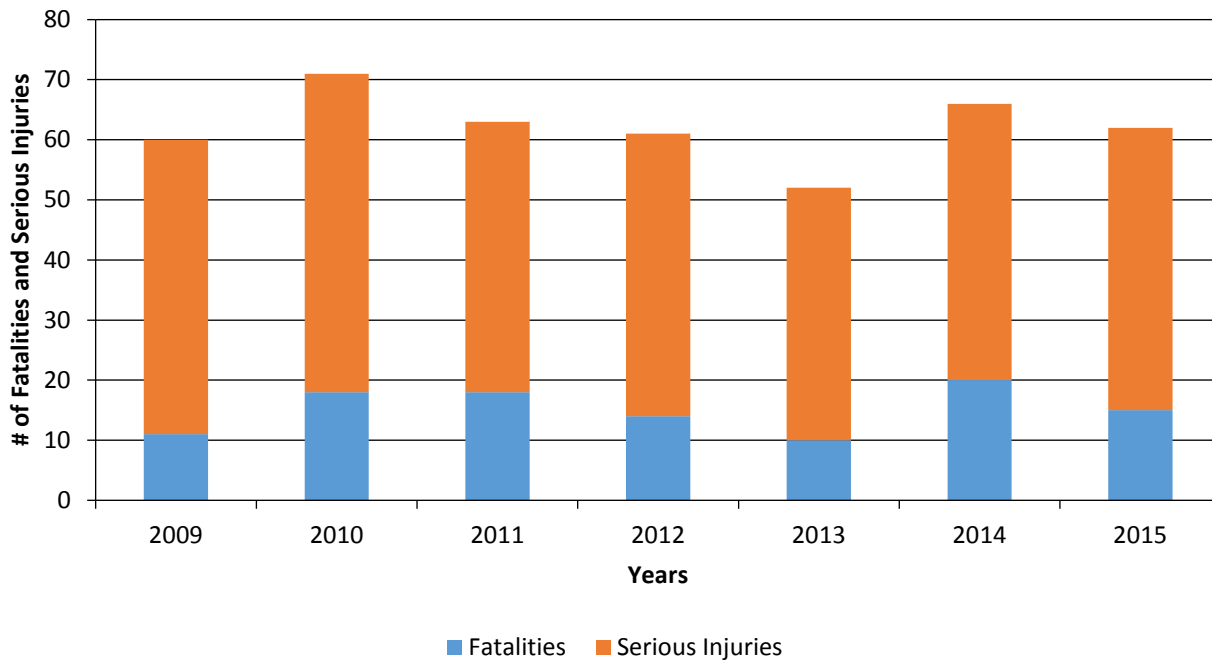
No

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

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	11	18	18	14	10	20	15
Number of Older Driver and Pedestrian Serious Injuries	49	53	45	47	42	46	47

Number of Older Driver and Pedestrian Fatalities and Serious Injuries by Year.



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?

Change in fatalities and serious injuries
Other-Funding utilized for Safety related treatments

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

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

Trend comparisons for fatal and serious injuries along with all crashes year to year. The trend for the State is down in both fatal and serious injuries.

Wyoming continues to utilize the full funding it is allocated for Safety Treatments on its roadways.

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

More systemic programs
HSIP Obligations

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

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

No

Effectiveness of Groupings or Similar Types of Improvements

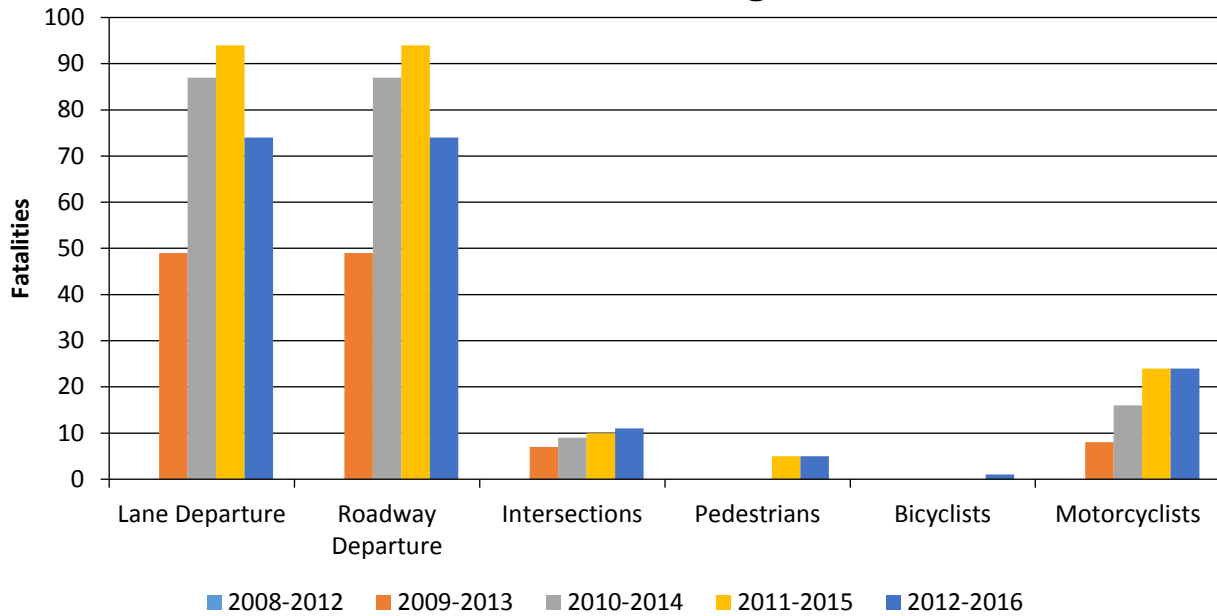
Present and describe trends in SHSP emphasis area performance measures.

Year 2016

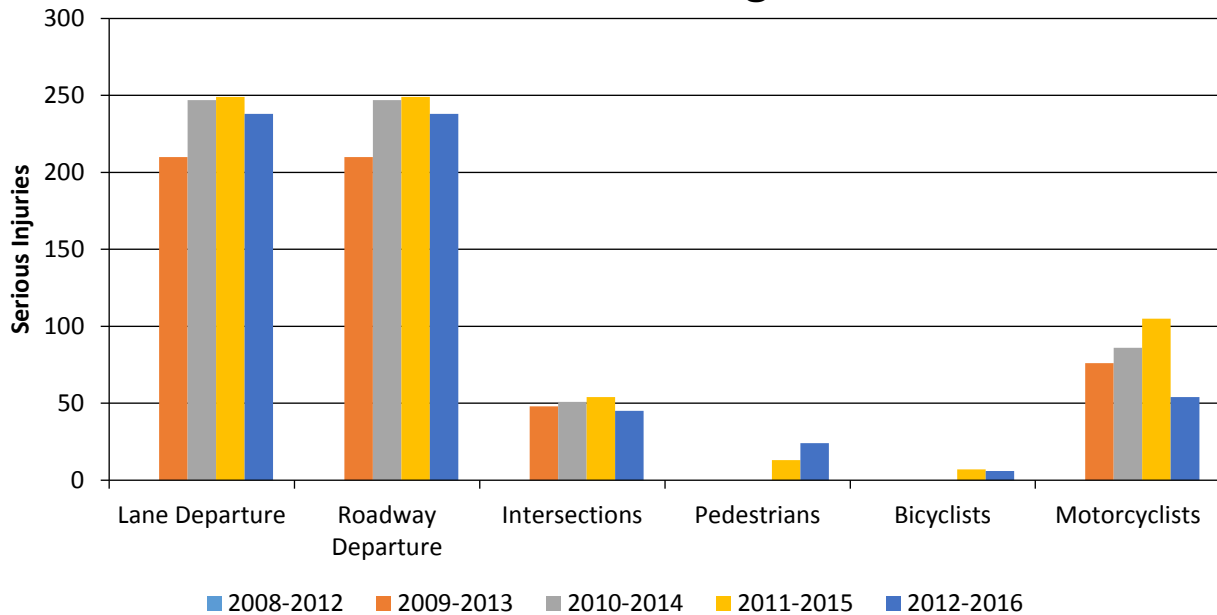
2017 Wyoming Highway Safety Improvement Program

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
Lane Departure	Run-off-road	74	238	0.8	2.56			
Roadway Departure	Run-off-road	74	238	0.8	2.56			
Intersections	All	11	45	0.12	0.48			
Pedestrians	All	5	24	0.05	0.26			
Bicyclists	All	1	6	0.01	0.06			
Motorcyclists	All	24	54	0.26	0.58			

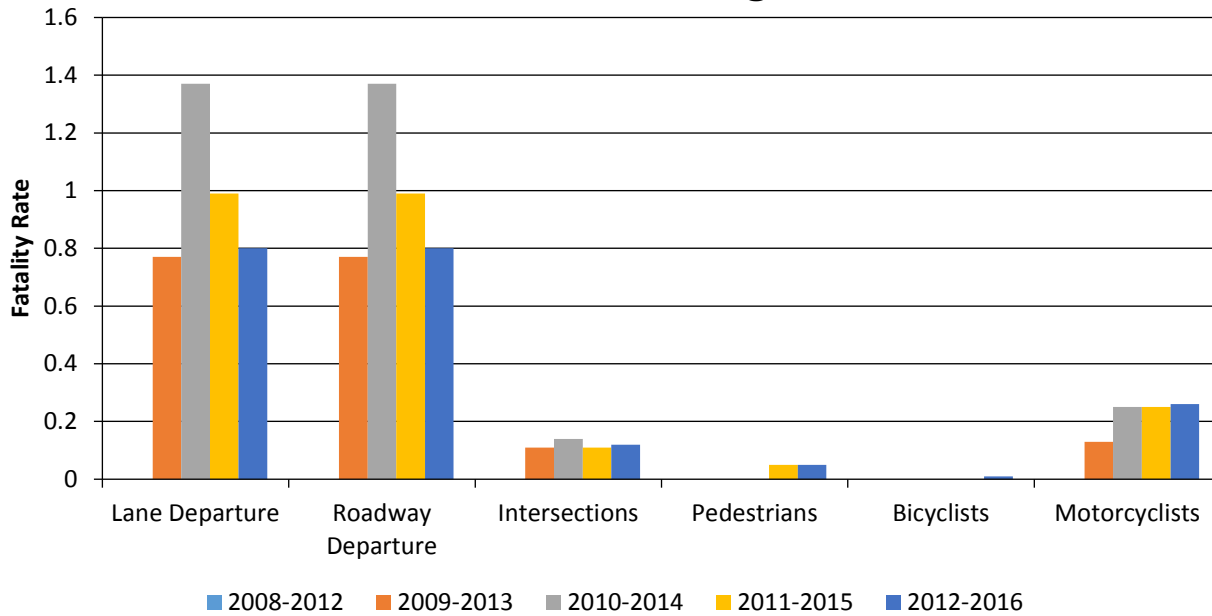
Number of Fatalities 5 Year Average



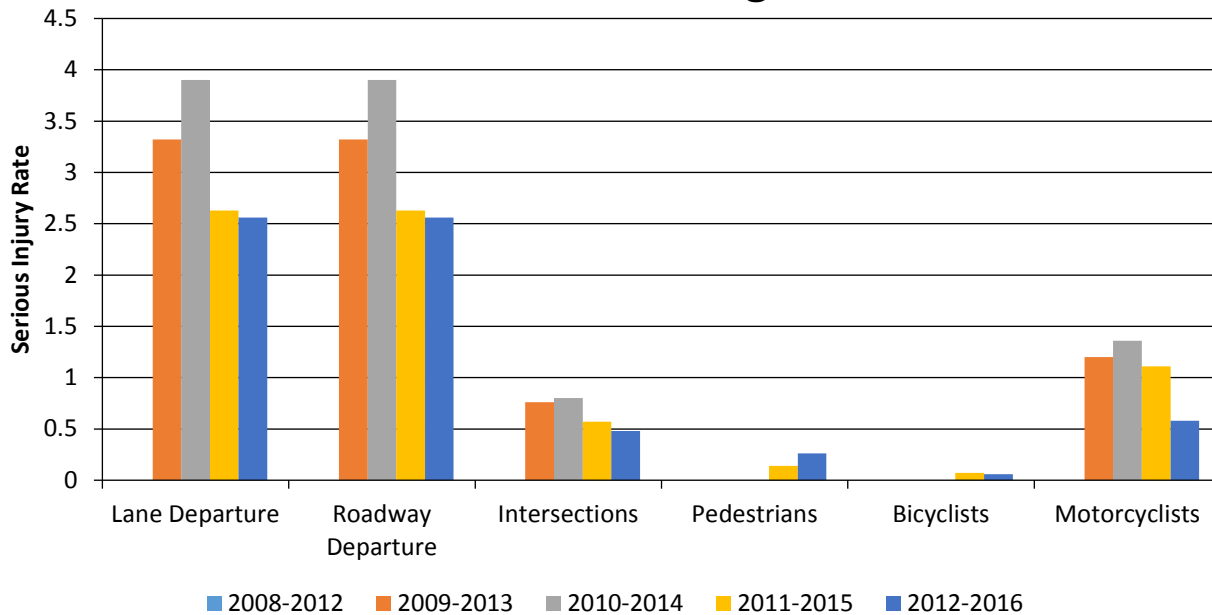
Number of Serious Injuries 5 Year Average



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.

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

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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)
N/A														

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

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?

07/10/2017

What are the years being covered by the current SHSP?

From: 2017 To: 2022

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

2022

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

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	0								
One/Two Way Operations (91)	100	100								
Number of Through Lanes (31)	100	100					100	100		
Average Annual Daily Traffic (79)	100	25					100	25		
AADT Year (80)	100	25								
Type of Governmental Ownership (4)	100	100					100	100	100	100
INTERSECTION										
Unique Junction Identifier (120)			100	0						
Location Identifier for Road 1 Crossing Point (122)			100	0						
Location Identifier for Road 2 Crossing Point (123)			100	0						
Intersection/Junction Geometry (126)			100	0						
Intersection/Junction Traffic Control (131)			100	0						
AADT for Each Intersecting Road (79)			100	0						
AADT Year (80)			100	0						
Unique Approach Identifier (139)			100	0						
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)					50	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
Roadway Type at End Ramp Terminal (199)					50	100				
Interchange Type (182)					50	100				
Ramp AADT (191)					50	100				
Year of Ramp AADT (192)					50	100				
Functional Class (19)					50	100				
Type of Governmental Ownership (4)					50	100				
Totals (Average Percent Complete):	100.00	86.11	100.00	0.00	68.18	100.00	100.00	91.67	100.00	100.00

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

With the large amount of federal lands in Wyoming with many paved and un-paved roadways it would be helpful if the Federal Government agencies would provide their roadway information to WYDOT so that it can be included.

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.

The State of Wyoming through the Department of Transportation Planning program will continue to pursue the necessary data collection to complete the MIRE fundamental data elements on all public roads. One glaring problem is the Federal Land agencies NOT providing this data to WYDOT.

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	Suspected Serious Injury	Yes	N/A	Yes	N/A	Yes
Crash Report Form Instruction Manual	Suspected Serious Injury	Yes	N/A	Yes	N/A	Yes
Crash Database	Suspected Serious Injury	Yes	N/A	Yes	N/A	Yes
Crash Database Data Dictionary	Suspected Serious Injury	Yes	N/A	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.

2017 Wyoming Highway Safety Improvement Program

The WYDOT Highway Safety Office completed a Self-Assessment in cooperation with the State FHWA Office. The Assessment was to identify strengths and weaknesses of the Highway Safety Improvement Program. The document serves as a guide to areas of concern to improve upon as WYDOT strives to reduce fatal and serious injury crashes in Wyoming.

Optional Attachments

Program Structure:

Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

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.