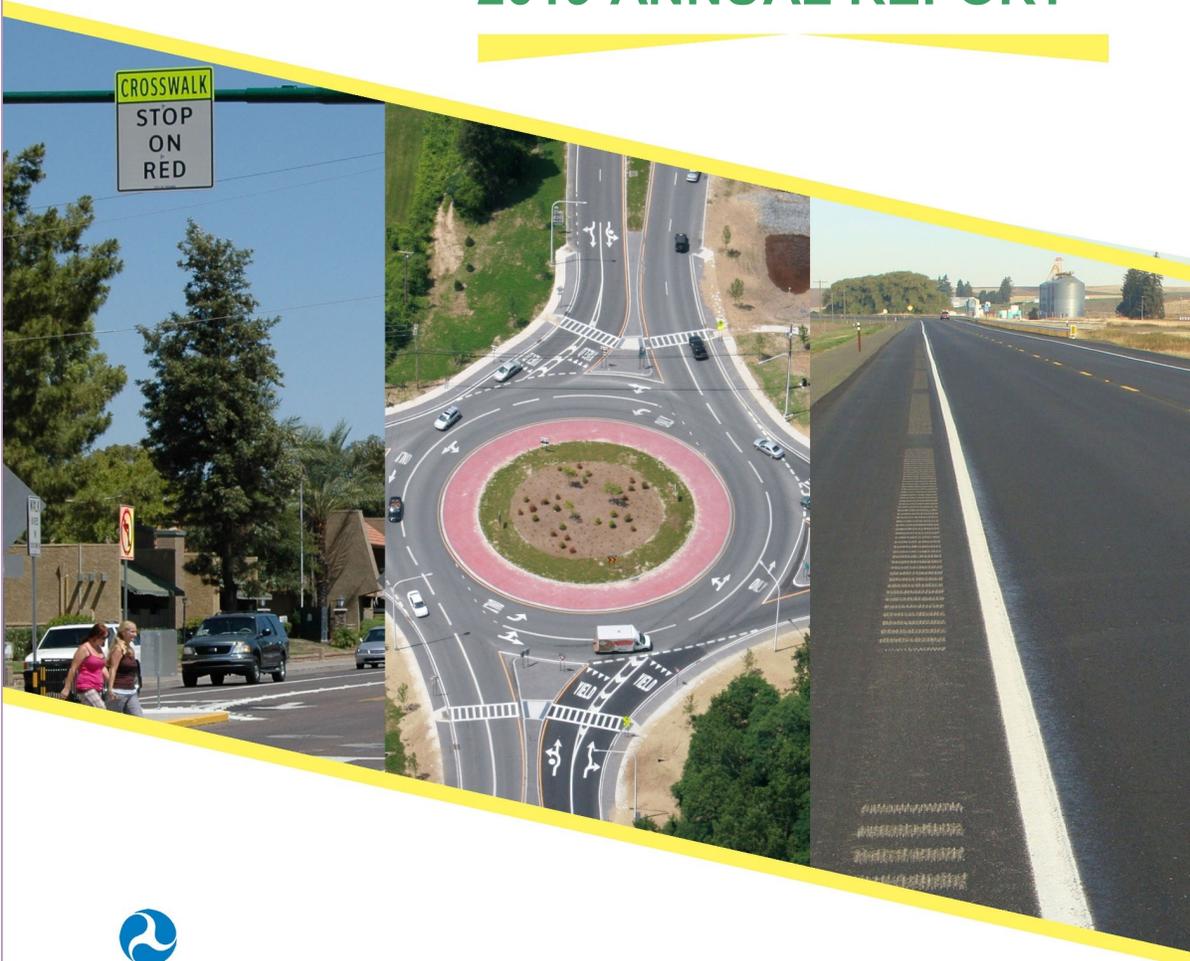




WYOMING

# HIGHWAY SAFETY IMPROVEMENT PROGRAM 2019 ANNUAL REPORT



U.S. Department of Transportation  
Federal Highway Administration

Photo source: Federal Highway Administration

## Table of Contents

Table of Contents.....	2
Disclaimer .....	3
Executive Summary .....	4
Introduction .....	5
Program Structure.....	5
Program Administration .....	5
Program Methodology .....	7
Project Implementation .....	17
Funds Programmed .....	17
General Listing of Projects .....	19
Safety Performance .....	22
General Highway Safety Trends.....	22
Safety Performance Targets.....	27
Applicability of Special Rules.....	29
Evaluation .....	30
Program Effectiveness .....	30
Effectiveness of Groupings or Similar Types of Improvements .....	30
Project Effectiveness .....	34
Compliance Assessment.....	35

**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 a HSIP program with processes in place for the collection of data, implementation of projects, and annual reporting. 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 highway safety needs throughout the State.

The Highway Safety Program continues to be process driven and consistent when approaching HSIP projects and reporting requirements. WYDOT is currently 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 before the funding is utilized. This ensures WYDOT efficiently and effectively utilizes the available funding on high value projects and project elements.

Progress is being made through the Safety Innovation Team that consists of the Highway Safety Program, Traffic Program, Planning Program and Highway Development Program. The Highway Safety Program has established a new position to oversee Safety Management.

WYDOT is also improving their process for the evaluation of safety benefits from projects and project elements that 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 and project elements.

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 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

#### **How are HSIP funds allocated in a State?**

- SHSP Emphasis Area Data
- Other-Safety Management System

#### **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

2019 Wyoming Highway Safety Improvement Program 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.**

- Districts/Regions
- Governors Highway Safety Office
- Local Aid Programs Office/Division
- Operations
- Planning
- Traffic Engineering/Safety

**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.**

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

**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.

**Describe HSIP program administration practices that have changed since the last reporting period.**

The Highway Safety Office has added a Safety Management Engineer to help work with the SMS, the SHSP, and the HSIP programs.

**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?**

Yes

FileName:

Final OPR 13-03\_Highway Safety Process and Project Delivery.pdf

OP 13-9\_Draft 6 (Clean).docx

WYDOT has updated two operating policies regarding the Highway Safety Process and the HSIP Execution. OP 13-03 Highway Safety Process has been approved by the Department and is in operation. OP 13-09 HSIP Execution has been drafted and reviewed but has not yet been approved.

**Select the programs that are administered under the HSIP.**

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

**Program: Horizontal Curve**

**Date of Program Methodology:10/9/2009**

**What is the justification for this program?**

- Addresses SHSP priority or emphasis area

**What is the funding approach for this program?**

Competes with all projects

**What data types were used in the program methodology?**

Crashes	Exposure	Roadway	
All	crashes Traffic Volume	Horizontal	curvature

**What project identification methodology was used for this program?**

- Crash frequency
- Probability of specific crash types
- Relative severity index

**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?**

**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

**Program: HRRR**

**Date of Program Methodology:9/12/2018**

**What is the justification for this program?**

- Other-local rural road safety program

**What is the funding approach for this program?**

Funding set-aside

**What data types were used in the program methodology?**

Crashes

Exposure

Roadway

All crashes

Other-Site survey

**What project identification methodology was used for this program?**

- Crash frequency
- Other-Wyoming Rural Road Safety Program methodology

**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.**

Separate methodology developed through the University of Wyoming LTAP Center

**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

**Program: Intersection**

**Date of Program Methodology:10/9/2011**

**What is the justification for this program?**

- Addresses SHSP priority or emphasis area

**What is the funding approach for this program?**

Competes with all projects

**What data types were used in the program methodology?**

**Crashes**

**Exposure**

**Roadway**

All  
Fatal crashes  
Fatal and serious injury crashes only

crashes  
only Traffic  
Volume

Functional classification  
Other-Rural Intersections and the type  
of traffic control present for example  
signalized or not

**What project identification methodology was used for this program?**

- Crash frequency
- Probability 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.**

Rural off system 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-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**

Available funding:1

**Program: Local Safety**

**Date of Program Methodology:10/9/2008**

**What is the justification for this program?**

- Other-HRRR subset of HSIP

**What is the funding approach for this program?**

Funding set-aside

**What data types were used in the program methodology?**

<b>Crashes</b>	<b>Exposure</b>	<b>Roadway</b>
All crashes	Traffic Volume	Other-A simple roadway drive through rating is used to identify roadway features needing improvement

**What project identification methodology was used for this program?**

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

**Program: Low-Cost Spot Improvements**

**Date of Program Methodology:10/9/2011**

**What is the justification for this program?**

- Addresses SHSP priority or emphasis area

**What is the funding approach for this program?**

Competes with all projects

**What data types were used in the program methodology?**

Crashes	Exposure	Roadway
All	crashes Traffic Volume	Horizontal curvature

**What project identification methodology was used for this program?**

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

**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?**

**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

**Program: Roadway Departure**

**Date of Program Methodology:10/9/2006**

**What is the justification for this program?**

- Addresses SHSP priority or emphasis area

**What is the funding approach for this program?**

Competes with all projects

**What data types were used in the program methodology?**

Crashes

Exposure

Roadway

## 2019 Wyoming Highway Safety Improvement Program

All Fatal crashes and serious injury crashes only  
crashes only  
Traffic Volume

Horizontal Functional Roadside features

curvature classification

### What project identification methodology was used for this program?

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

### 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

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

### Program: Sign Replacement And Improvement

Date of Program Methodology:10/9/2008

### What is the justification for this program?

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

2019 Wyoming Highway Safety Improvement Program  
**What is the funding approach for this program?**

Competes with all projects

**What data types were used in the program methodology?**

**Crashes**

**Exposure**

**Roadway**

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

**What project identification methodology was used for this program?**

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

**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

2019 Wyoming Highway Safety Improvement Program  
**Program: Other-Guardrail upgrade/replacement**

**Date of Program Methodology:2/2/2015**

**What is the justification for this program?**

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

**What is the funding approach for this program?**

Competes with all projects

**What data types were used in the program methodology?**

Crashes	Exposure	Roadway
All crashes	Volume	Roadside features

**What project identification methodology was used for this program?**

- 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

**What percentage of HSIP funds address systemic improvements?**

33

**HSIP funds are used to address which of the following systemic improvements?**

- Add/Upgrade/Modify/Remove Traffic Signal
- Cable Median Barriers
- Clear Zone Improvements
- High friction surface treatment
- Horizontal curve signs
- Install/Improve Lighting
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Rumble Strips
- Upgrade Guard Rails

**What process is used to identify potential countermeasures?**

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Other-WYDOT - Safety Management System
- Other-Use of Crash Information to identify over-represented crash types to be addressed

**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.

## Project Implementation

### Funds Programmed

#### Reporting period for HSIP funding.

Federal Fiscal Year

FY 2018 Funds

Wyoming is using the last full federal fiscal year to report information to the HSIP annual report. This corresponds to the available complete crash data and statistics.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$24,306,761	\$19,794,425	81.44%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$0	\$0	0%
Penalty Funds (23 U.S.C. 154)	\$4,708,161	\$5,097,896	108.28%
Penalty Funds (23 U.S.C. 164)	\$5,812,545	\$5,952,065	102.4%
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%
HRRR	\$330,929	\$340,610	102.93%
<b>Totals</b>	<b>\$35,158,396</b>	<b>\$31,184,996</b>	<b>88.7%</b>

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

\$600,000

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

\$400,000

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

\$0

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

\$0

2019 Wyoming Highway Safety Improvement Program

**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%

**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.

**General Listing of Projects**

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

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
CN05080					\$99567	\$99566.5				0					
0505019					\$123704.35	\$247408.7				0					
0805156					\$501264.78	\$2506323.94				0					
0805157					\$117139	\$117139				0					
CN08080					\$93200	\$93200				0					
CN08081					\$93200	\$93200				0					
CN08082					\$171167	\$171167				0					
CN13072					\$368175	\$368175				0					
CN13074					\$230392	\$230392				0					
I252158					\$2257570.83	\$5643927.08				0					
I252159					\$2712175.02	\$6780437.57				0					
I252167					\$151004.26	\$377510.66				0					
I254157					\$340680.34	\$973372.4				0					
I254157					\$292011.72	\$973372.4				0					
I254157					\$340680.34	\$973372.4				0					
N211060					\$558249.06	\$5582490.61				0					
N212118					\$2225935.97	\$5564839.94				0					
N212120					\$1339213.09	\$1488014.55				0					
N212120					\$148801.45	\$1488014.55				0					
B183032					\$544500	\$544500				0					
DR34586					\$445498.24	\$1113745.6				0					
DR34696					\$305976.66	\$1529883.3				0					
DR34795					\$626299.88	\$1252599.76				0					
HR17301					\$110000	\$110000				0					

2019 Wyoming Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
HR17302					\$90000	\$90000				0					
N103112					\$130821.05	\$130821.05				0					
0602002					\$687260.54	\$2290868.47				0					
B184021					\$142266.75	\$142266.75				0					
B184030					\$306119.2	\$306119.2				0					
B184101					\$246064.5	\$246064.5				0					
CN03044					\$224272	\$224272				0					
CN03045					\$195056	\$195056				0					
CN03046					\$177682	\$177682				0					
HR17403					\$100000	\$100000				0					
I902123					\$418781.61	\$8375632.32				0					
N491006					\$322377	\$322377				0					
N601043					\$45600	\$320000				0					
0201017					\$187736.01	\$1877360.13				0					
0703011					\$10976069.18	\$15680098.84				0					
B185001					\$79502.38	\$935322.14				0					
B185003					\$97288.07	\$778304.62				0					
B185003					\$97288.07	\$778304.62				0					
CN09064					\$201803	\$201803				0					
CN11072					\$251000	\$251000				0					
DR51866					\$135125	\$270250				0					
DR51873					\$658262.86	\$1645657.16				0					
DR51885					\$2437564.58	\$6093911.45				0					
HR17504					\$110509	\$110509				0					
N311099					\$285695.3	\$285695.3				0					
N311100					\$141750.4	\$141750.4				0					

2019 Wyoming Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
N311104					\$402126.12	\$1005315.3				0					
N343042					\$1070185.13	\$1070185.13				0					
P351031					\$127143	\$127143				0					
B179105					\$625100	\$1786000				0					
B179105					\$535800	\$1786000				0					
B179105					\$625100	\$1786000				0					
B179108					\$1850000.02	\$1850000.02				0					
B189004					\$451763.65	\$451763.65				0					
B189026					\$773652	\$773652				0					
B189027					\$804925	\$804925				0					
B189028					\$655983.9	\$655983.9				0					
B189029					\$1368250.76	\$1368250.76				0					
B189137					\$100000	\$100000				0					
HR18901					\$300000	\$300000				0					
HRRR018					\$200000	\$200000				0					
IT18001					\$1140883.1	\$6519332				0					
IT18001					\$977899.8	\$6519332				0					
IT18001					\$1140883.1	\$6519332				0					
PM18001					\$737350	\$737350				0					

Drop down menus do not match Wyoming's reporting categories. More information could be provided if we are allowed to upload our own spreadsheet.

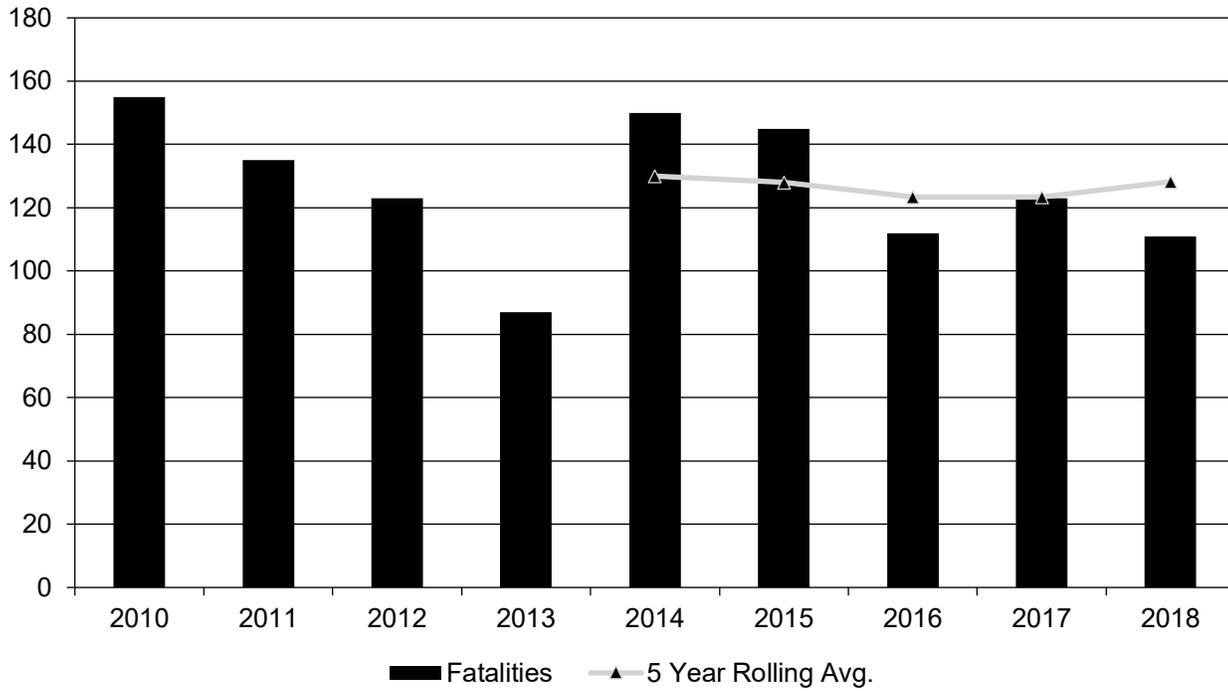
## Safety Performance

### *General Highway Safety Trends*

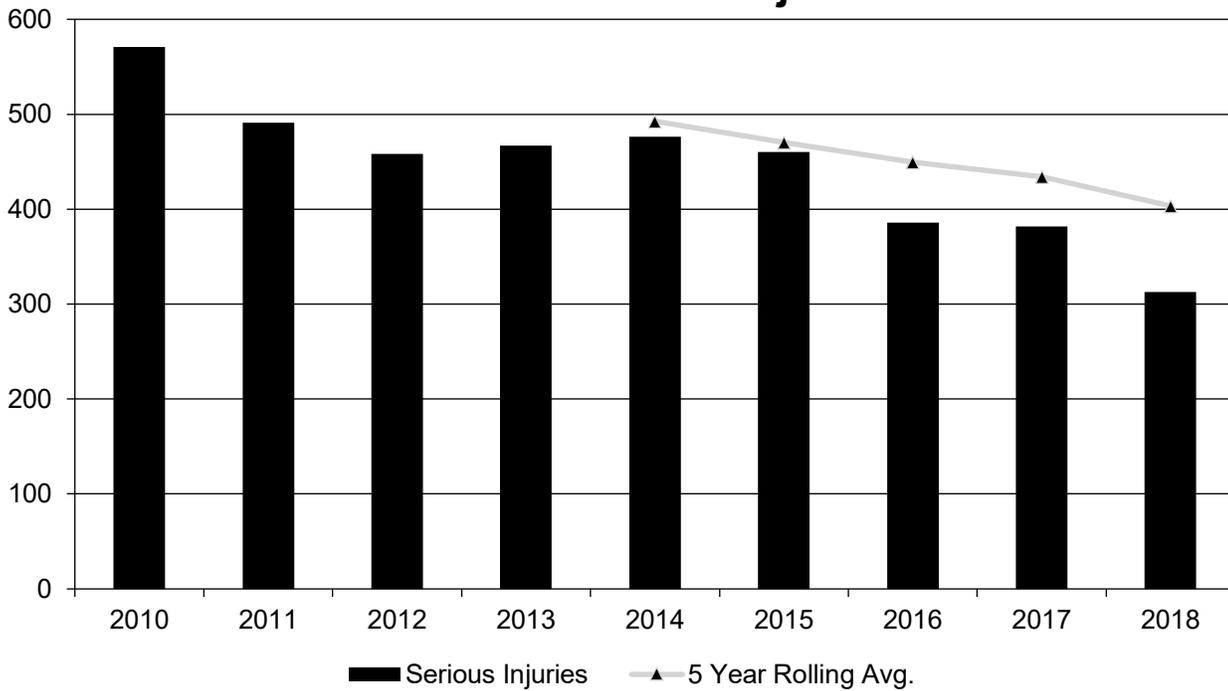
Present data showing the general highway safety trends in the State for the past five years.

<b>PERFORMANCE MEASURES</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Fatalities	155	135	123	87	150	145	112	123	111
Serious Injuries	571	491	458	467	476	460	386	382	313
Fatality rate (per HMVMT)	1.660	1.460	1.330	0.930	1.590	1.510	1.200	1.260	1.130
Serious injury rate (per HMVMT)	6.220	5.400	5.050	5.160	5.090	4.850	4.150	3.925	3.180
Number non-motorized fatalities	3	7	6	4	10	5	5	6	6
Number of non-motorized serious injuries	28	27	22	17	28	20	30	19	19

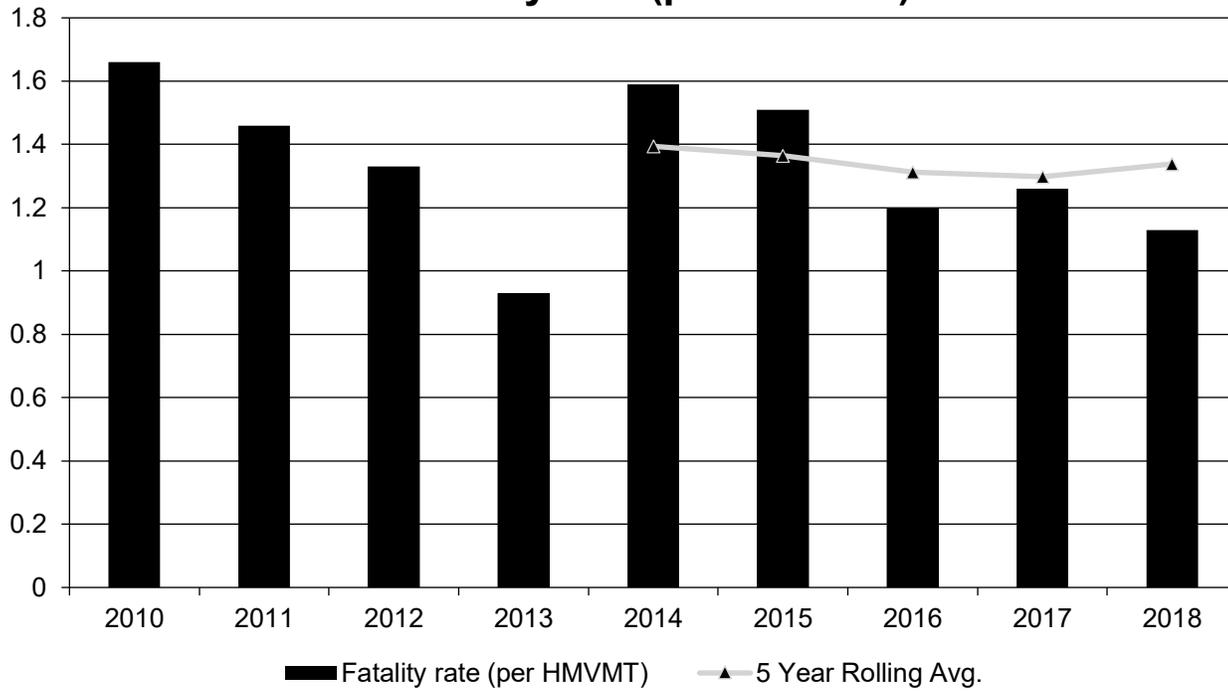
### Annual Fatalities



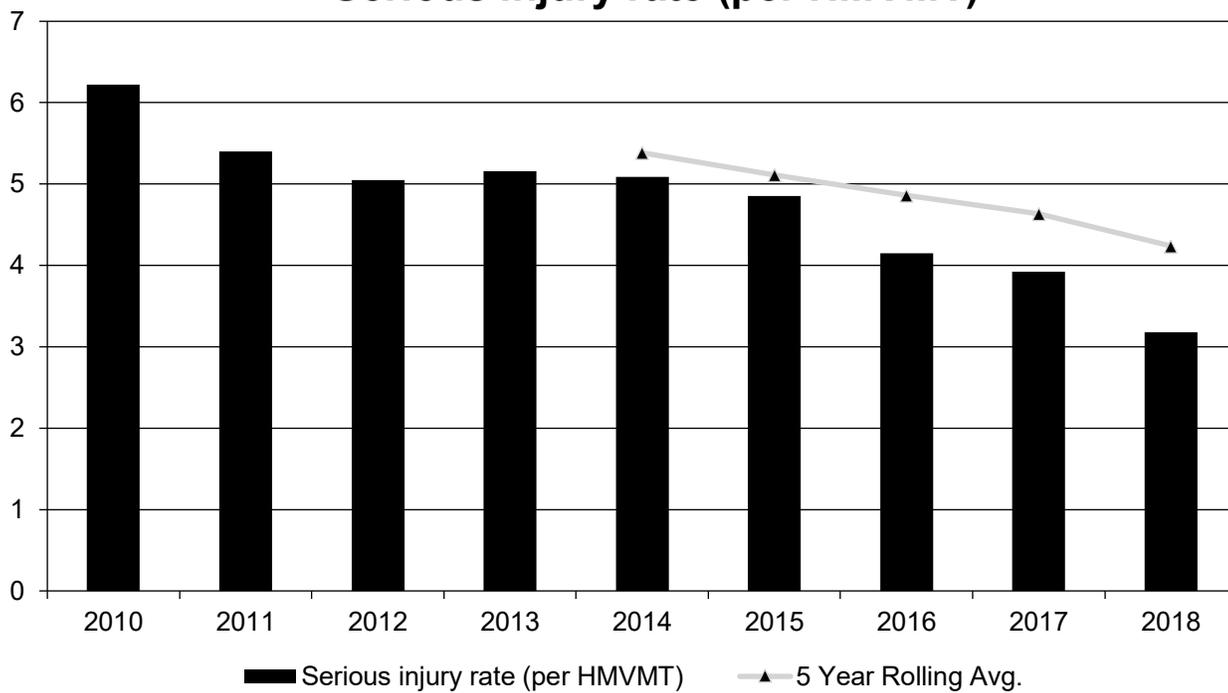
### Annual Serious Injuries



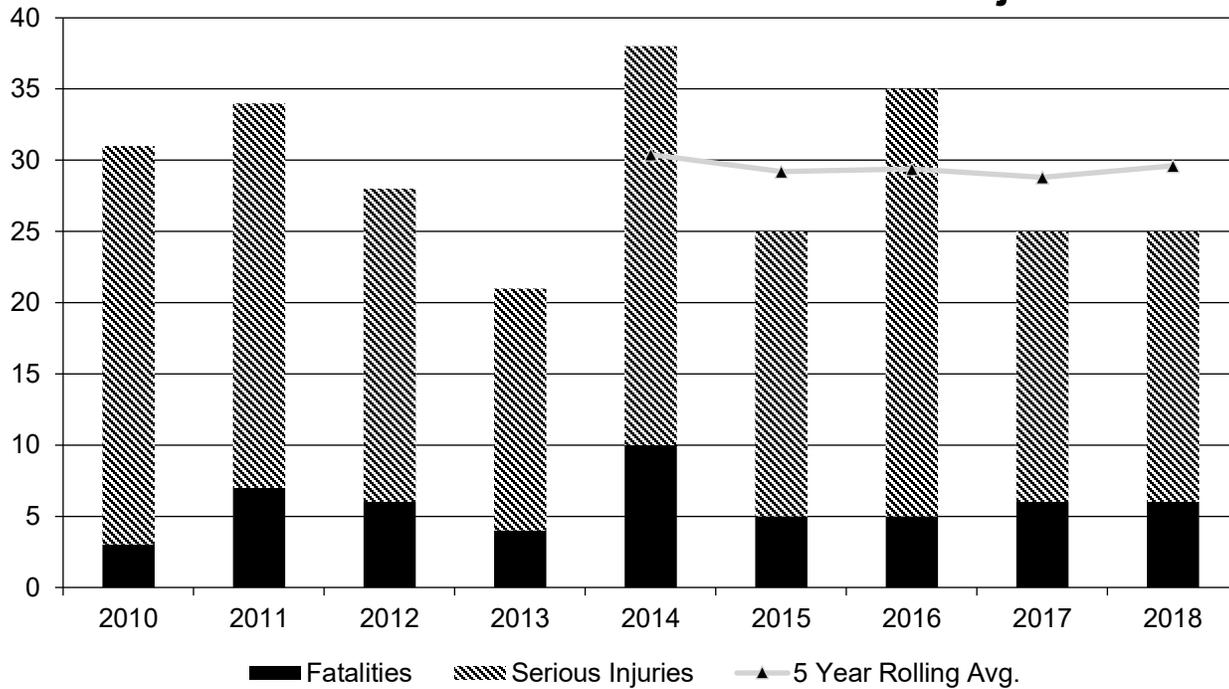
### Fatality rate (per HMVMT)



### Serious injury rate (per HMVMT)



## Non Motorized Fatalities and Serious Injuries



**Describe fatality data source.**

Other

If Other Please describe

2018 data comes from State Database. All previous years come from FARS.

2018 data comes from State Database. All previous years come from FARS.

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

**Year 2018**

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 (RPA) - Interstate	28.2	92	1.13	3.69
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	34.4	89	2.15	5.58
Rural Minor Arterial	10.2	30.2	2.01	5.93
Rural Minor Collector	5	17.2	0.61	2.1

2019 Wyoming Highway Safety Improvement Program

<b>Functional Classification</b>	<b>Number of Fatalities (5-yr avg)</b>	<b>Number of Serious Injuries (5-yr avg)</b>	<b>Fatality Rate (per HMVMT) (5-yr avg)</b>	<b>Serious Injury Rate (per HMVMT) (5-yr avg)</b>
Rural Major Collector	15.6	37	2.55	6.02
Rural Local Road or Street	9.6	26.4	1.5	4.18
Urban Principal Arterial (UPA) - Interstate	3.2	16.2	0.59	2.94
Urban Principal Arterial (UPA) - Other Freeways and Expressways	0	0.6	0	4.76
Urban Principal Arterial (UPA) - Other	7.2	30.4	0.96	4.14
Urban Minor Arterial	2	9.2	0.52	2.21
Urban Minor Collector		25.8		5.4
Urban Major Collector				
Urban Local Road or Street	2.4	15.6	0.39	2.52

2019 Wyoming Highway Safety Improvement Program

**Year 2017**

<b>Roadways</b>	<b>Number of Fatalities (5-yr avg)</b>	<b>Number of Serious Injuries (5-yr avg)</b>	<b>Fatality Rate (per HMVMT) (5-yr avg)</b>	<b>Serious Injury Rate (per HMVMT) (5-yr avg)</b>
State Highway Agency	99.6	329		
County Highway Agency	8.4	32.8		
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				

***Safety Performance Targets***

**Safety Performance Targets**

**Calendar Year 2020 Targets \***

***Number of Fatalities:128.0***

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

2019 Wyoming Highway Safety Improvement Program

The Safety Management System (SMS) Committee analyzes the 5 and 10 year running averages along with recent trends to determine the new performance targets. The SMS Committee is the coordinating body for the Strategic Highway Safety Plan.

***Number of Serious Injuries:462.0***

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

The Safety Management System (SMS) Committee analyzes the 5 and 10 year running averages along with recent trends to determine the new performance targets. The SMS Committee is the coordinating body for the Strategic Highway Safety Plan.

***Fatality Rate:1.350***

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

The Safety Management System (SMS) Committee analyzes the 5 and 10 year running averages along with recent trends to determine the new performance targets. The SMS Committee is the coordinating body for the Strategic Highway Safety Plan.

***Serious Injury Rate:4.900***

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

The Safety Management System (SMS) Committee analyzes the 5 and 10 year running averages along with recent trends to determine the new performance targets. The SMS Committee is the coordinating body for the Strategic Highway Safety Plan.

***Total Number of Non-Motorized Fatalities and Serious Injuries:29.0***

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

The Safety Management System (SMS) Committee analyzes the 5 and 10 year running averages along with recent trends to determine the new performance targets. The SMS Committee is the coordinating body for the Strategic Highway Safety Plan.

**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 in the State regarding the establishment of targets for the State. The MPO's were presented with the established targets at a formal meeting. Concurrence with the overall State targets was requested from both MPO's.

**Does the State want to report additional optional targets?**

No

2019 Wyoming Highway Safety Improvement Program

**Describe progress toward meeting the State’s 2018 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.**

The state is on target to meet all performance measures for 2018.

***Applicability of Special Rules***

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

**No**

**Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.**

<b>PERFORMANCE MEASURES</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of Older Driver and Pedestrian Fatalities	16	21	14	19	21	24	17
Number of Older Driver and Pedestrian Serious Injuries	53	52	59	48	55	36	59

## Evaluation

### *Program Effectiveness*

#### How does the State measure effectiveness of the HSIP?

- Other-Funding utilized for Safety related treatments

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

The state analyzes the 5 and 10 year running averages of fatalities and serious injuries along with recent trends to determine the effectiveness of safety treatments.

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

- HSIP Obligations
- Increased awareness of safety and data-driven process
- More systemic programs

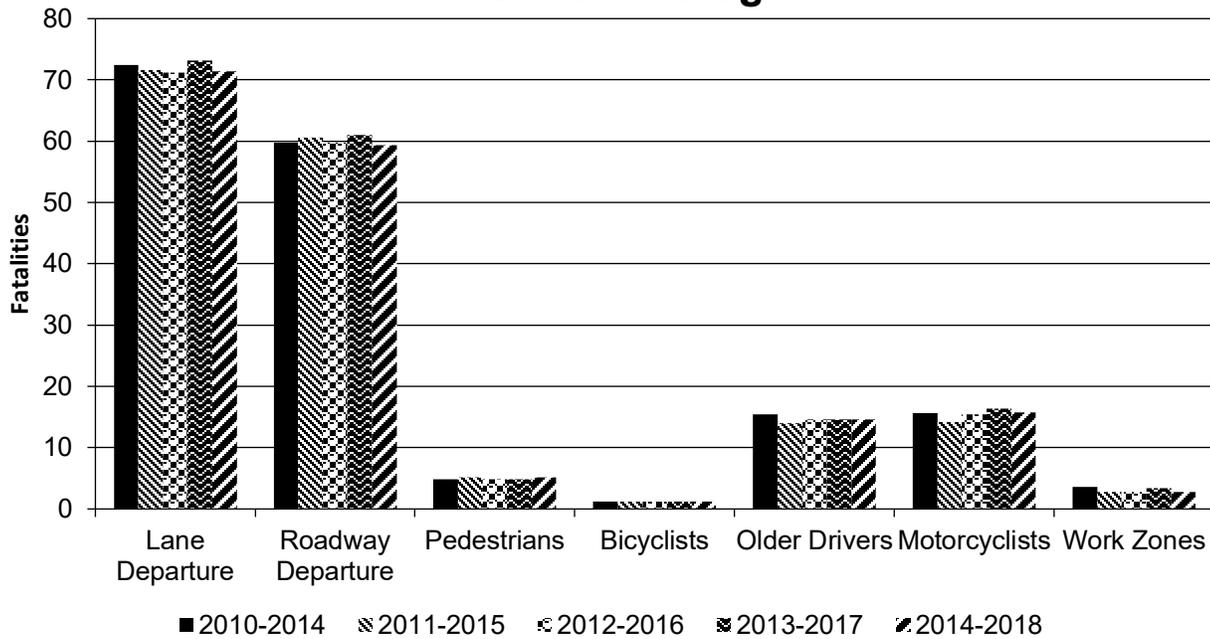
### *Effectiveness of Groupings or Similar Types of Improvements*

#### Present and describe trends in SHSP emphasis area performance measures.

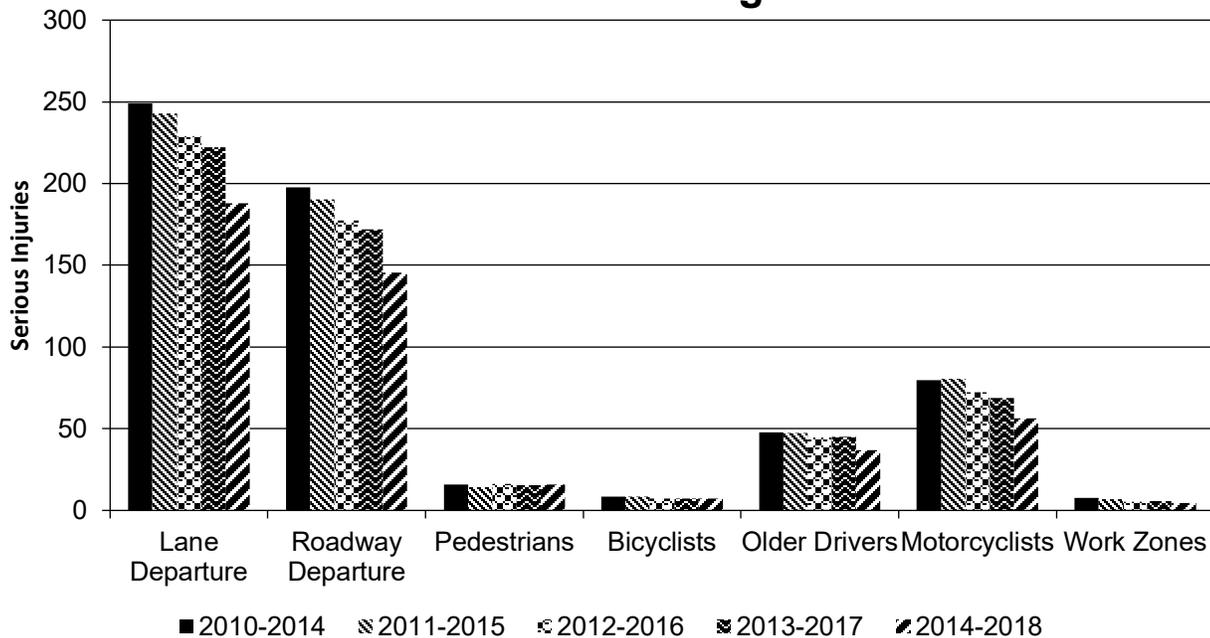
Year 2018

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)
Lane Departure		71.4	188	0.75	1.98
Roadway Departure		59.4	145.4	0.62	1.53
Pedestrians		5.2	16	0.05	0.17
Bicyclists		1.2	7.2	0.01	0.07
Older Drivers		14.6	36.8	0.15	0.39
Motorcyclists		15.8	56.2	0.17	0.59
Work Zones		2.8	4.6	0.03	0.05

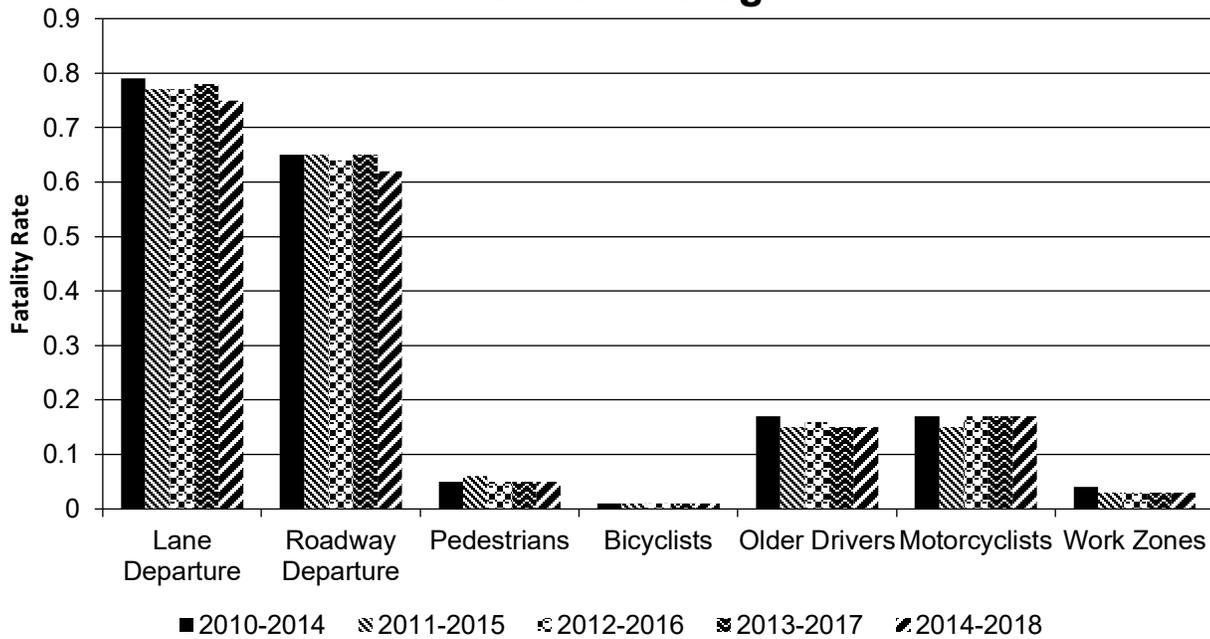
### Number of Fatalities 5 Year Average



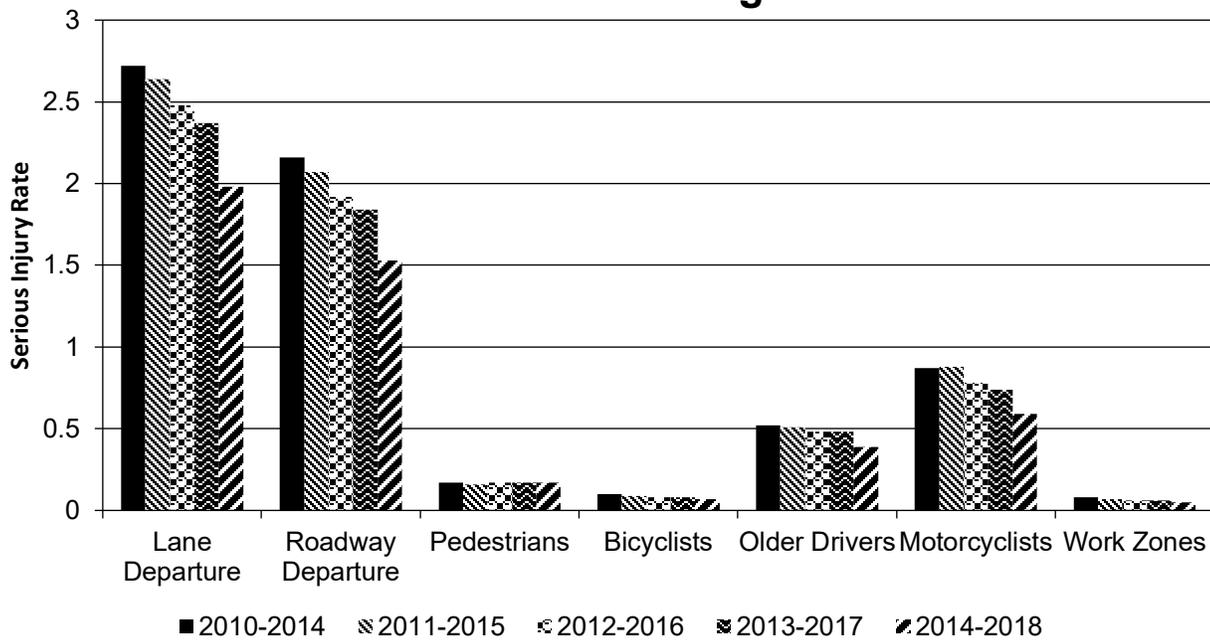
### Number of Serious Injuries 5 Year Average



### Fatality Rate (per HMVMT) 5 Year Average



### Serious Injury Rate (per HMVMT) 5 Year Average



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

No

## 2019 Wyoming Highway Safety Improvement Program

Research is underway with the University of Wyoming to look at the crash modification factors of various treatments specific to Wyoming. This research is not yet completed.

**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 OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
NONE														

## 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

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

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE
ROADWAY SEGMENT	Segment Identifier (12)	100	96					100	90	100	71
	Route Number (8)	100	96								
	Route/Street Name (9)	100	96								
	Federal Aid/Route Type (21)	100	96								
	Rural/Urban Designation (20)	100	96					100	90		
	Surface Type (23)	100	96					100	90		
	Begin Point Segment Descriptor (10)	100	96					100	90	100	71
	End Point Segment Descriptor (11)	100	96					100	90	100	71
	Segment Length (13)	100	96								
	Direction of Inventory (18)	100	96								
	Functional Class (19)	100	96					100	90	100	71
	Median Type (54)	100	96								
Access Control (22)	100	96									

2019 Wyoming Highway Safety Improvement Program

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE
	One/Two Way Operations (91)	100	96								
	Number of Through Lanes (31)	100	96					100	90		
	Average Annual Daily Traffic (79)	100	25					100	25		
	AA DT Year (80)	100	25								
	Type of Governmental Ownership (4)	100	96					100	90	100	71
<b>INTERSECTION</b>	Unique Junction Identifier (120)			100							
	Location Identifier for Road 1 Crossing Point (122)			100							
	Location Identifier for Road 2 Crossing Point (123)			100							
	Intersection/Junction Geometry (126)			100							
	Intersection/Junction Traffic Control (131)			100							
	AA DT for Each Intersecting Road (79)			100							
	AA DT Year (80)			100							
	Unique Approach Identifier (139)			100							
<b>INTERCHANGE/RAMP</b>	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				

2019 Wyoming Highway Safety Improvement Program

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	Roadway Type at Beginning of Ramp Terminal (195)					50	100				
	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				
<b>Totals (Average Percent Complete):</b>		<b>100.00</b>	<b>88.11</b>	<b>100.00</b>	<b>0.00</b>	<b>68.18</b>	<b>100.00</b>	<b>100.00</b>	<b>82.78</b>	<b>100.00</b>	<b>71.00</b>

\*Based on Functional Classification

With the large amounts of federal lands (paved and un-paved roadways) in Wyoming, it is required that the Federal Government agencies provide their roadway information to WYDOT so 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 is working with the local governments to obtain all required MIRE fundamental data elements. In order to meet the requirements on federal lands, the federal government agencies need to provide their roadway information to WYDOT.

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

No

**When does the State plan to complete its next HSIP program assessment.**

2020

## 2019 Wyoming Highway Safety Improvement Program

### **Optional Attachments**

Program Structure:

Final OPR 13-03\_Highway Safety Process and Project Delivery.pdf

OP 13-9\_Draft 6 (Clean).docx

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.