IOWA

HSIP

HIGHWAY SAFETY
IMPROVEMENT PROGRAM
2020 ANNUAL REPORT
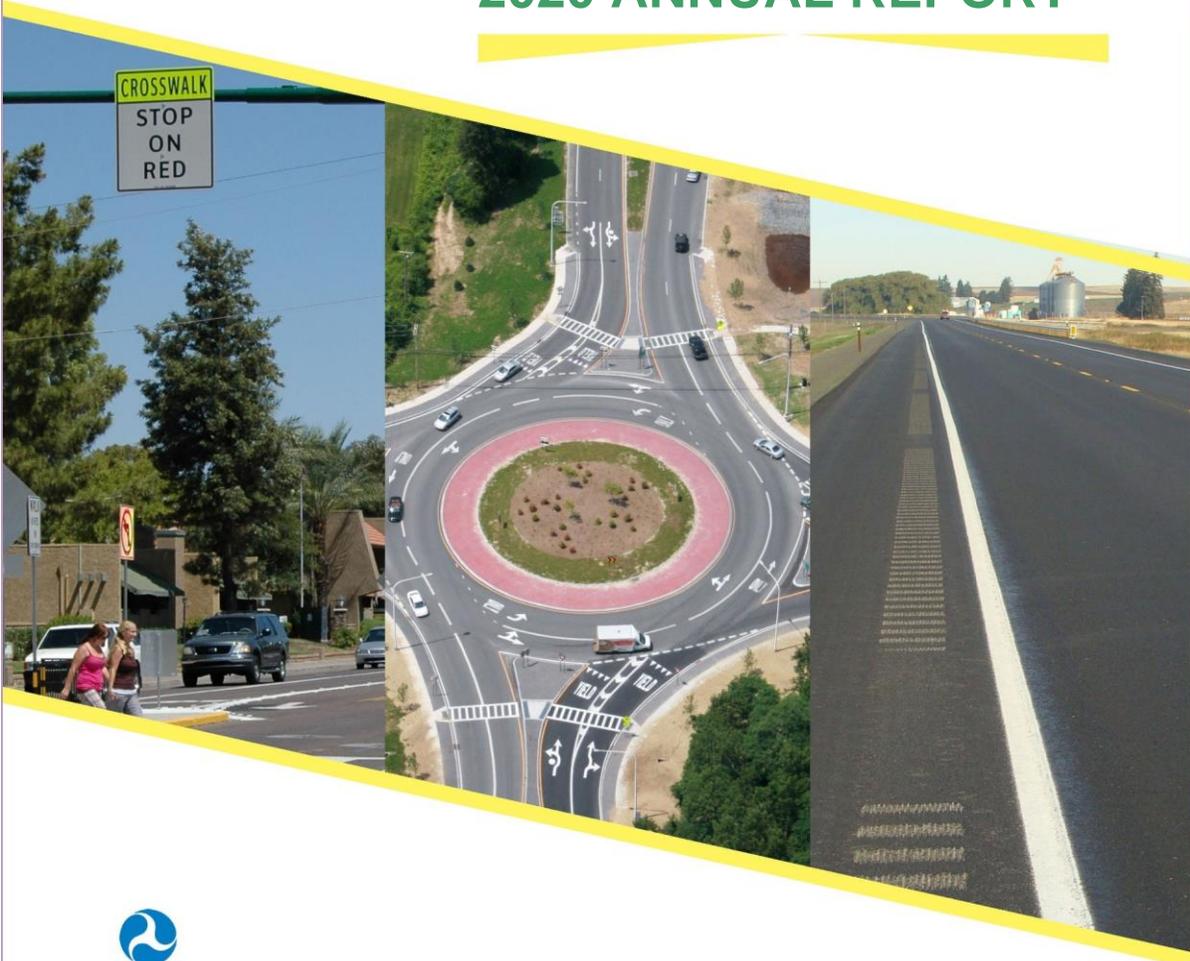
U.S. Department of Transportation
Federal Highway Administration

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. 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

This was a productive year for the Iowa HSIP. Progress continues to be made toward implementing a more data-informed approach for identifying locations and potential countermeasures for safety improvements. The Safety Analysis Incorporation (SAI) group, with representatives from various offices across the DOT, continues to oversee the development of tools and processes to advance the consideration of safety at all stages of project development. Some efforts overseen by the SAI group include: calibration of the Highway Safety Manual (HSM) safety performance functions (SPFs) to Iowa conditions, development of a suite of HSM spreadsheet tools to evaluate project impacts and alternatives, and replacement of Iowa's historical intersection crash rates with SPFs calculated using the SPF-R open-source software. Additionally, a consultant has been hired and work has begun on developing an intersection configuration evaluation (ICE) policy and process.

Data quality has been a focus this year. Several improvements in data accuracy have been made as a result of this focus including more accurate counting of impaired drivers. Progress continues toward replacing the existing manual data download process with an automated process that will minimize staff time and reduce the potential for errors.

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 state's HSIP funds are distributed amongst two different pots: statewide and districts. Statewide projects are identified by central office staff based on research/study results, and can involve a mixture of hot-spot and systemic improvements. District projects are identified by the districts, based on their judgment or the results of a safety study, such as their District Road Safety Plan. All projects are selected for funding by central office staff. District projects are approved for funding based on whether they were identified by their respective District Road Safety Plan or whether the benefit-cost ratio exceeds one. District projects are typically designed in-house, but the majority of statewide projects are designed by an outside consultant. All projects are tracked by central office staff, including crashes, costs, and construction dates. Crashes for 3 to 5 years pre-construction are compared 3 to 5 years of post-construction crashes, and a benefit-cost analysis is conducted for all projects.

Where is HSIP staff located within the State DOT?

Operations

How are HSIP funds allocated in a State?

- Formula via Districts/Regions

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

Iowa utilizes state funds to address safety on local and tribal roads. HSIP-Secondary addresses safety issues on the secondary (county-owned) roadway system, and is focused on funding projects that incorporate systemic, low-cost safety improvements. Typical countermeasures include rumble strips, grooved-in pavement markings, paved shoulders, improved signage, and guardrail updates.

Safety improvements on other local roads, including county, city, and tribal roads, are addressed via the state's Transportation Safety Improvement Program (TSIP). TSIP is a competitive, application-based program that awards approximately $7 million in state funds annually for safety projects on and off the state system. Funding is provided in three categories: the completion of studies, the purchase of traffic control devices, and the construction of larger infrastructure projects.

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

- Districts/Regions
- Traffic Engineering/Safety

Describe coordination with internal partners.

Iowa DOT districts are typically charged with developing and overseeing HSIP projects, so they are consulted early and often in the HSIP planning process. HSIP projects are chosen that align with SHSP emphasis areas, typically intersections and lane departures. A large majority of funding goes toward addressing lane departure crashes through shoulder improvements, most commonly paving existing shoulders. District Road Safety Plans have been completed, so the districts utilize the project recommendations that resulted from the data-driven, risk-based plans, either by submitting these as HSIP candidate projects, or by addressing locations with their own forces.

Identify which external partners are involved with HSIP planning.

- FHWA

Describe coordination with external partners.

The HSIP manager meets annually with Iowa Division personnel to review the state's HSIP approval process and update it, if necessary.

Program Methodology

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

Yes
An update to the HSIP Manual is planned to occur in the Spring of 2021.

Select the programs that are administered under the HSIP.

- HSIP (no subprograms)

Program: HSIP (no subprograms)

Date of Program Methodology:5/1/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

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
- Volume

What project identification methodology was used for this program?

- Crash frequency
- Other-Risk Factors

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?

- 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

What percentage of HSIP funds address systemic improvements?
11

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

- Cable Median Barriers

What process is used to identify potential countermeasures?

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- SHSP/Local road safety plan

Does the State HSIP consider connected vehicles and ITS technologies?
No

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.

Iowa is still in the earlier stages of implementing the Highway Safety Manual (HSM). The foundation for increased usage is being laid by calibrating the safety performance functions (SPFs) in the HSM to local conditions, as well as adjusting the default crash distribution tables to reflect state-specific experience.

Additionally, the state's intersection database is being combined with crash data to develop intersection SPFs. Eleven broad intersection categories have been established, and SPFs (based on all crashes) are being developed, through use of the SPF-R tool, for each category. The next step will be to develop severity-based intersection SPFs.

Although the state has been using crash modification factors (CMFs) for years, the number of CMFs available on the CMF clearinghouse has grown exponentially, and there remains many countermeasures for which a good CMF does not exist. Therefore, the need for state-specific CMFs was identified, and a list of approximately 70 commonly used CMFs was published in August 2019. The goal is to update the list annually.

Finally, a consultant has developed a state-specific framework for conducting safety evaluations consistent with HSM methods, via a spreadsheet tool. The rural two-lane, rural multilane, and urban/suburban arterial versions of the tool have been delivered to the state, and the goal is to have these tools implemented in early 2021.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.
State Fiscal Year
Iowa's state fiscal year runs July 1 through June 30.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$21,260,700	$20,731,212	97.51%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$0	$0	0%
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	$21,260,700	$20,731,212	97.51%

How much funding is programmed to local (non-state owned and operated) or tribal safety projects?
0%

How much funding is obligated to local or tribal safety projects?
0%

How much funding is programmed to non-infrastructure safety projects?
0%

How much funding is obligated to non-infrastructure safety projects?
0%

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.

Impediments to fully obligating programmed HSIP funds include proper estimating and long development timelines.

Initial cost estimates tend to be high in order to account for project uncertainties and to avoid having to ask for more money at a later time. Recently, bids for cable barrier projects have increased sharply, resulting in two projects having to be re-let (one of which had to move into a different state fiscal year).

Project development timelines can be affected by multiple external forces including coordination, clearances, and unforeseen circumstances. Our goal is to work with project sponsors and project managers to improve the accuracy of cost estimates and to minimize time delays in order to obligate HSIP funds to the fullest extent.

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
HSIPX-002-9(39)--3L-56	Shoulder treatments	Pave existing shoulders	9	Miles	$1485815	$1782155	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	3,500	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-009-9(88)--3L-03	Shoulder treatments	Pave existing shoulders	15	Miles	$2543762	$2826402	HSIP (23 U.S.C. 148)	Multiple/Varies	Minor Arterial	1,800	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-013-3(47)--3L-22	Shoulder treatments	Pave existing shoulders	13	Miles	$1921157	$2134619	HSIP (23 U.S.C. 148)	Multiple/Varies	Minor Arterial	2,140	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-014-5(76)--3L-64	Shoulder treatments	Pave existing shoulders	11	Miles	$1418655	$1576628	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,800	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-018-3(102)--3L-74	Shoulder treatments	Pave existing shoulders	12	Miles	$2600313	$2898162	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Other	4,100	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-059-4(35)--3L-83	Shoulder treatments	Pave existing shoulders	10	Miles	$442604	$491782	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Other	5,200	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-063-5(50)--3L-86	Shoulder treatments	Pave existing shoulders	13	Miles	$1451177	$1801921	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	3,990	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-136-3(56)--3L-31	Shoulder treatments	Pave existing shoulders	9	Miles	$1187609	$1319565	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	2,300	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-218-1(77)--3L-56	Shoulder treatments	Pave existing shoulders	10	Miles	$1543636	$1862151	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,570	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-020-9(258)--3L-31	Shoulder treatments	Pave existing shoulders	13	Miles	$2136848	$2444110	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	13,400	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-028-2(48)--3L-77	Shoulder treatments	Pave existing shoulders	5	Miles	$673368	$763937	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Other	25,200	55	State Highway Agency	Spot	Lane Departure	Install or widen paved shoulders
HSIPX-144-1(8)--3L-25	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	2	Miles	$541446	$601607	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	8,900	35	State Highway Agency	Spot	Speed-related	Implement geometric design strategies to moderate speeds and

| 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
															enhance safety
HSIPX-034-7(141)--3L-90	Intersection geometry	Auxiliary lanes - add right-turn lane (free-flow)	1	Approaches	$492353	$547059	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,500	45	State Highway Agency	Spot	Intersections	Change intersection geometry
IHSIPX-080-1(494)44--08-78	Roadside	Barrier - cable	14	Miles	$2292469	$3175601	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	20,200	70	State Highway Agency	Systemic	Lane Departure	Continue median cable barrier installations on the Interstate system

Safety Performance

General Highway Safety Trends

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

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fatalities	360	365	317	322	320	402	331	319	336
Serious Injuries	1,510	1,637	1,549	1,522	1,470	1,510	1,467	1,312	1,347
Fatality rate (per HMVMT)	1.146	1.156	1.005	0.996	0.967	1.209	0.981	0.952	0.995
Serious injury rate (per HMVMT)	4.807	5.184	4.911	4.707	4.440	4.540	4.347	3.916	3.988
Number non-motorized fatalities	31	25	23	25	30	28	29	27	32
Number of non-motorized serious injuries	126	124	115	101	121	107	97	94	98

Annual Fatalities

Legend: ■ Fatalities ▲ 5 Year Rolling Avg.
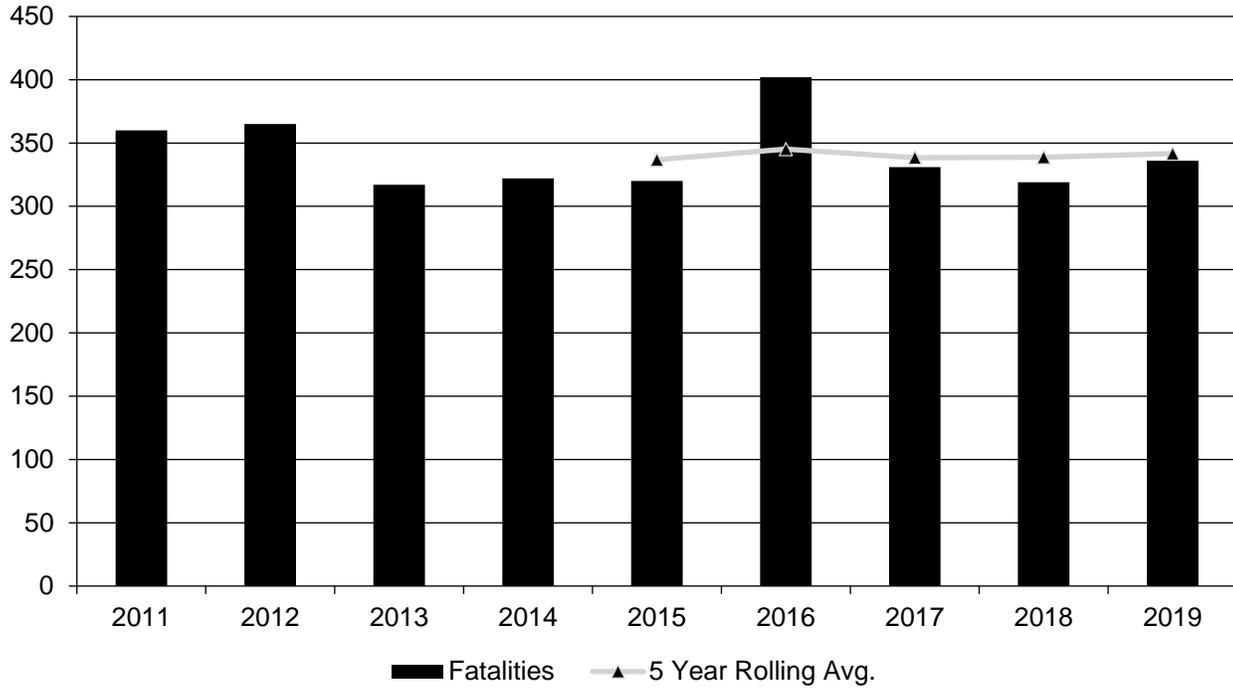
Annual Serious Injuries

Legend: ■ Serious Injuries ▲ 5 Year Rolling Avg.

Fatality rate (per HMVMT)

Fatality rate (per HMVMT)   ▲ 5 Year Rolling Avg.
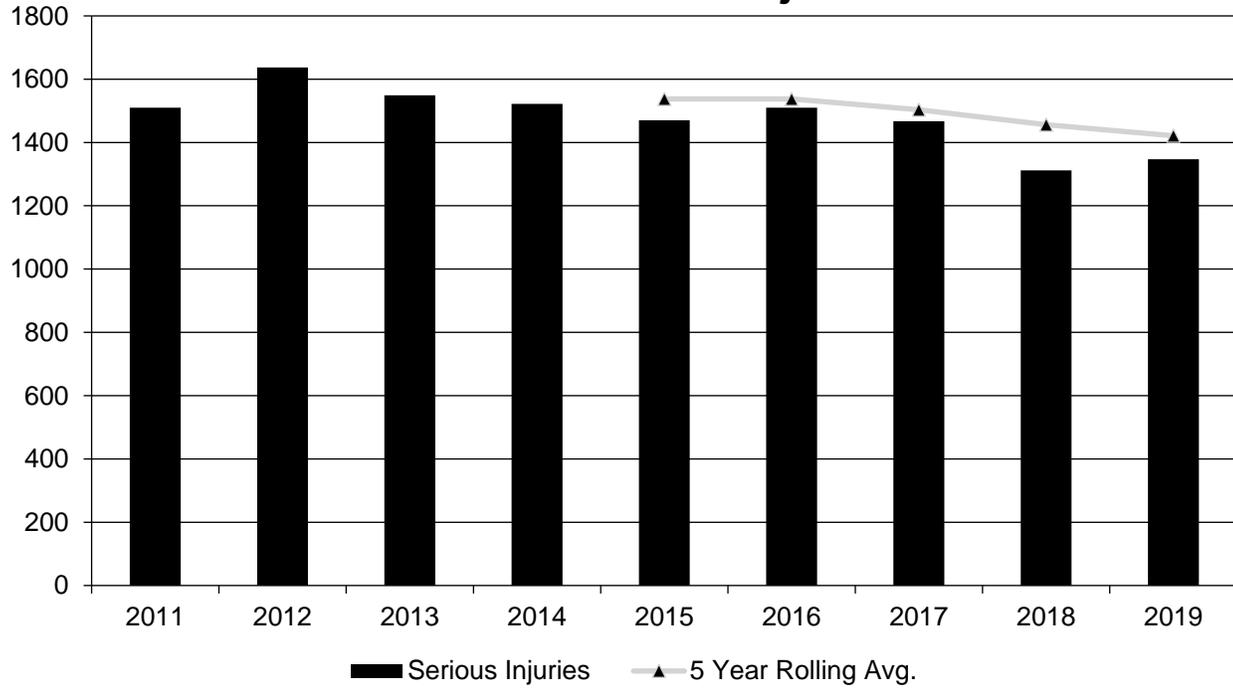
Serious injury rate (per HMVMT)

Serious injury rate (per HMVMT)   ▲ 5 Year Rolling Avg.

Non Motorized Fatalities and Serious Injuries

Fatalities   Serious Injuries   5 Year Rolling Avg.
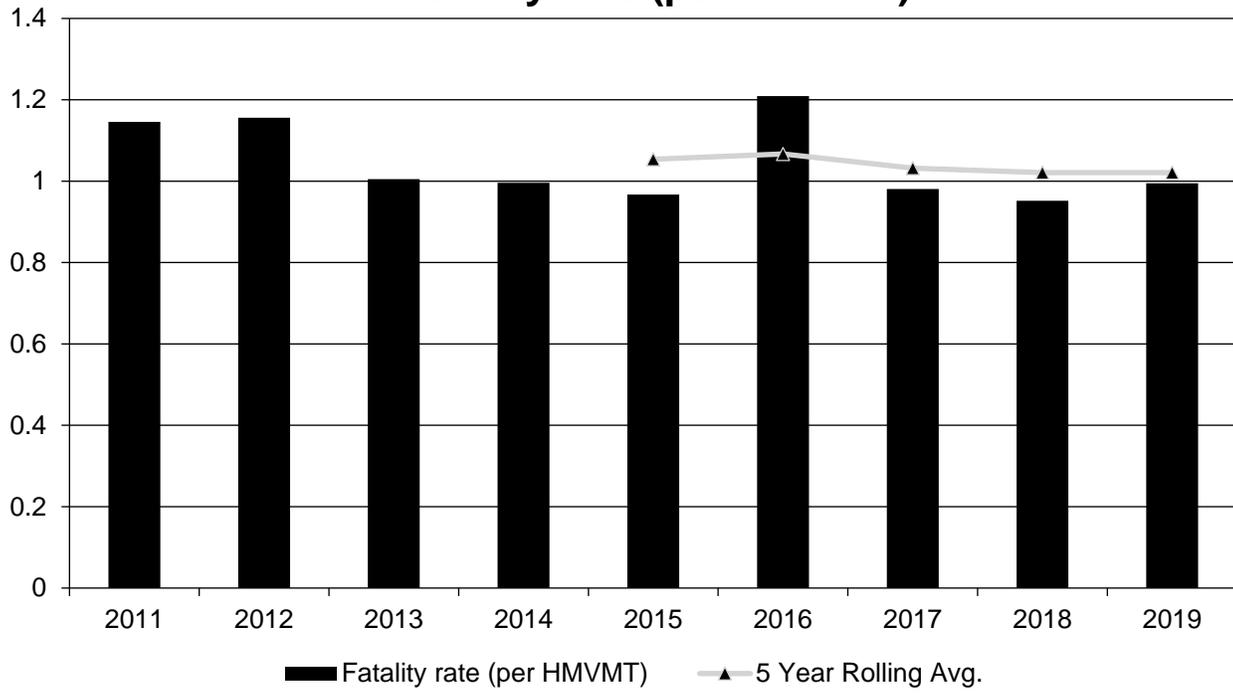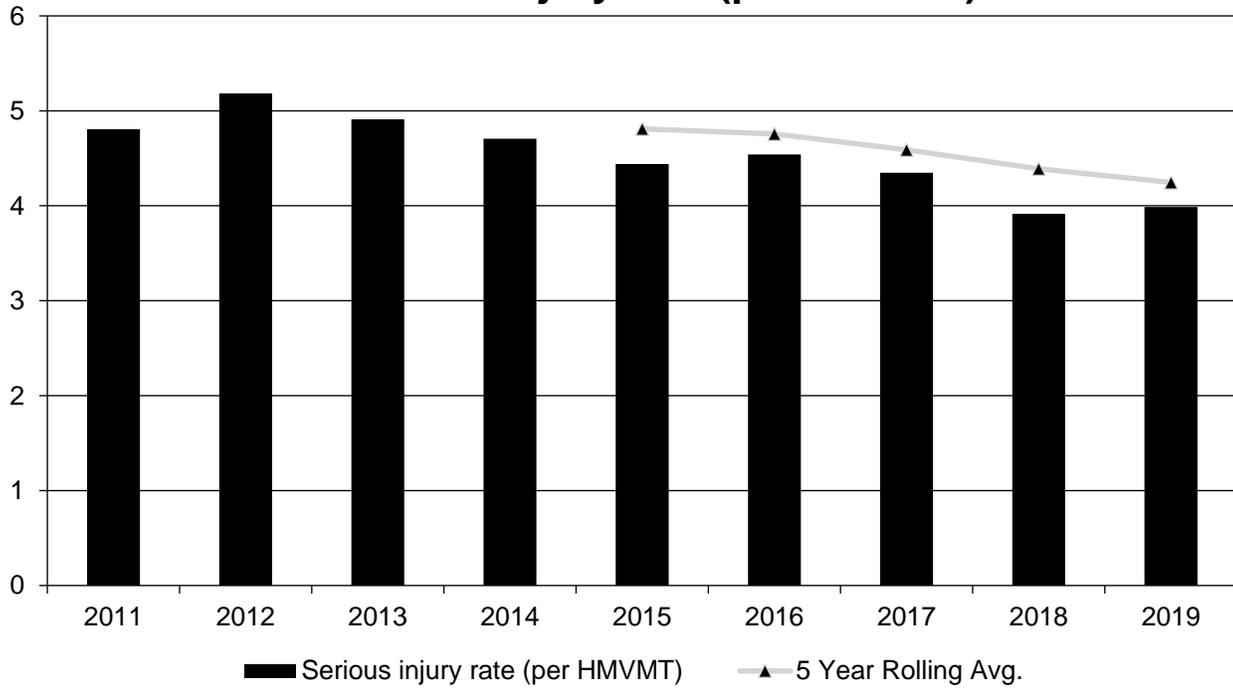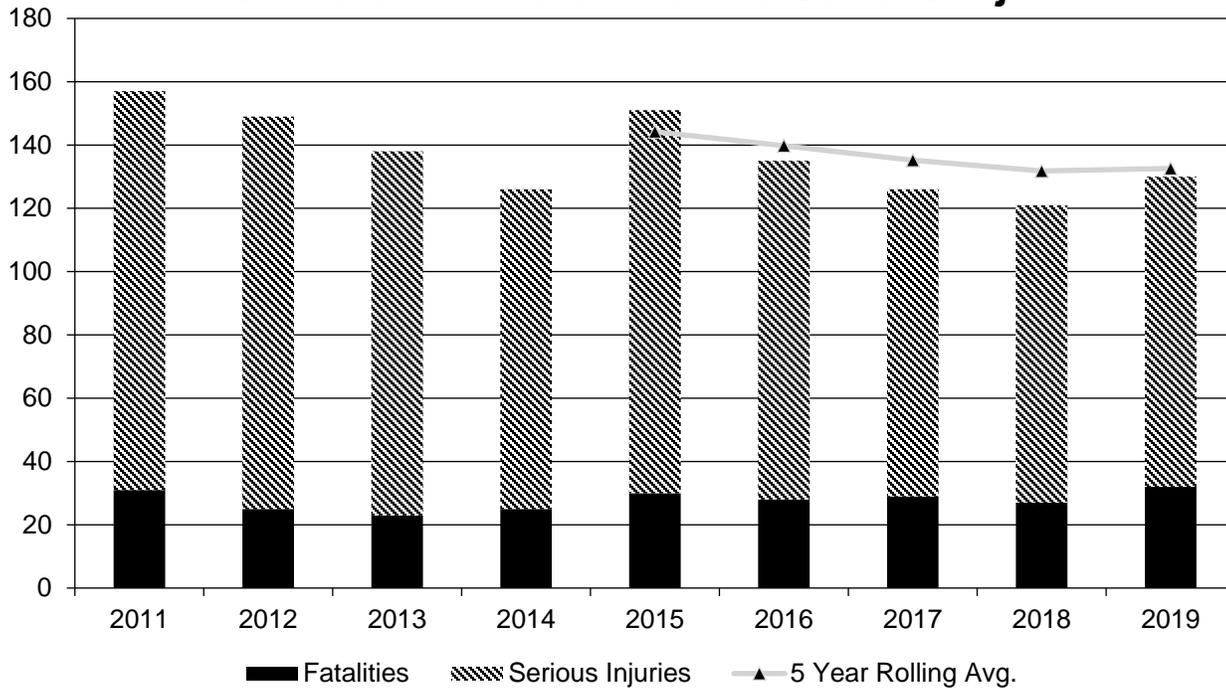
Describe fatality data source.

State Motor Vehicle Crash Database

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

Year 2019

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	27.6	79.4	0.51	1.46
Rural Principal Arterial (RPA) - Other Freeways and Expressways	27.8	73.4	0.51	1.35
Rural Principal Arterial (RPA) - Other	32.4	91.4	0.6	1.68
Rural Minor Arterial	42.8	142.4	1.69	5.63
Rural Minor Collector	33.6	122	4.48	16.27
Rural Major Collector	76.6	282	2.48	9.12

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 Local Road or Street	58.6	227.2	6.18	23.97
Urban Principal Arterial (UPA) - Interstate	13.2	52.8	0.45	1.79
Urban Principal Arterial (UPA) - Other Freeways and Expressways	13	44.2	0.44	1.5
Urban Principal Arterial (UPA) - Other	18.8	115.6	0.64	3.92
Urban Minor Arterial	35.4	208	0.97	5.68
Urban Minor Collector	1.6	5.4	2.36	7.95
Urban Major Collector	21.6	121.6	1.53	8.6
Urban Local Road or Street	41.4	267.4	1.65	10.64

Year 2019

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	175.2	635.4	0.84	3.04
County Highway Agency	112.8	457.6	2.06	8.36
Town or Township Highway Agency				
City or Municipal Highway Agency	52.2	321.6	0.74	4.55
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 2021 Targets *

Number of Fatalities:336.8

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

A simple trend analysis of historical fatality data was performed. An integrated moving average model was run to estimate how much risk would be associated with each set of predictions. Our working group settled on

using a 75% confidence level. This means we are at least 75% confident the actual 5-year rolling average will be less than the target.

Number of Serious Injuries:1370.8

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

A simple trend analysis of historical serious injury data was performed. An integrated moving average model was run to estimate how much risk would be associated with each set of predictions. Our working group settled on using a 75% confidence level. This means we are at least 75% confident the actual 5-year rolling average will be less than the target.

Fatality Rate:0.983

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

A simple trend analysis of historical fatality data was performed. An integrated moving average model was run to estimate how much risk would be associated with each set of predictions. Our working group settled on using a 75% confidence level. This means we are at least 75% confident the actual 5-year rolling average will be less than the target. This target supports the SHSP goal of continuing to reduce the fatality rate to 1.000 per HMVMT by 2020.

Serious Injury Rate:4.002

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

A simple trend analysis of historical serious injury data was performed. An integrated moving average model was run to estimate how much risk would be associated with each set of predictions. Our working group settled on using a 75% confidence level. This means we are at least 75% confident the actual 5-year rolling average will be less than the target. This target supports the SHSP goal of continuing to reduce the serious injury rate below 4.300 per HMVMT by 2020.

Total Number of Non-Motorized Fatalities and Serious Injuries:131.0

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

A simple trend analysis of historical non-motorized fatality and serious injury data was performed. An integrated moving average model was run to estimate how much risk would be associated with each set of predictions. Our working group settled on using a 75% confidence level. This means we are at least 75% confident the actual 5-year rolling average will be less than the target.

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

The DOT's safety target working group established the methodology for setting the performance targets, using the same process as last year. The chosen targets and a description of the methodology were shared with representatives from the Governor's Traffic Safety Bureau for comment. No comments were received.

A draft safety memo outlining the chosen targets and methodology was sent to all MPOs in the state with a request for comments. No substantive comments regarding the targets or the methodology were received during the comment period.

Does the State want to report additional optional targets?
No

Describe progress toward meeting the State's 2019 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.

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	353.6	341.6
Number of Serious Injuries	1483.7	1421.2
Fatality Rate	1.047	1.021
Serious Injury Rate	4.391	4.246
Non-Motorized Fatalities and Serious Injuries	149.8	132.6

The state met its target for the 5-year average number of fatalities. The state met its target for the 5-year average number of serious injuries. The state met its target for the 5-year average fatality rate. The state met its target for the 5-year average serious injury rate. The state met its target for the 5-year average number of non-motorized fatalities and serious injuries.

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.

PERFORMANCE MEASURES	2013	2014	2015	2016	2017	2018	2019
Number of Older Driver and Pedestrian Fatalities	59	55	51	56	52	51	49
Number of Older Driver and Pedestrian Serious Injuries	157	146	123	125	155	127	141

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Benefit/Cost Ratio

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

Overall since fiscal year 2001, the state's HSIP expenditures have resulted in a benefit-cost ratio of approximately 6 to 1. Some of the highest B-C ratios resulted from roadway signs, lighting, and roadside improvements.

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
- Increased focus on local road safety
- Policy change

Effectiveness of Groupings or Similar Types of Improvements

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

Year 2019

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		197.4	601	0.59	1.79
Intersections		74.6	355.8	0.22	1.06
Pedestrians		24.6	72.2	0.07	0.21
Bicyclists		7	35.8	0.02	0.11
Older Drivers		70.4	195.6	0.21	0.58
Motorcyclists		45.6	214.6	0.14	0.64
Work Zones		7.8	16.6	0.02	0.05

Number of Fatalities
5 Year Average

■ 2011-2015　 ▨ 2012-2016　 ヽ 2013-2017　 ▧ 2014-2018　 ◪ 2015-2019
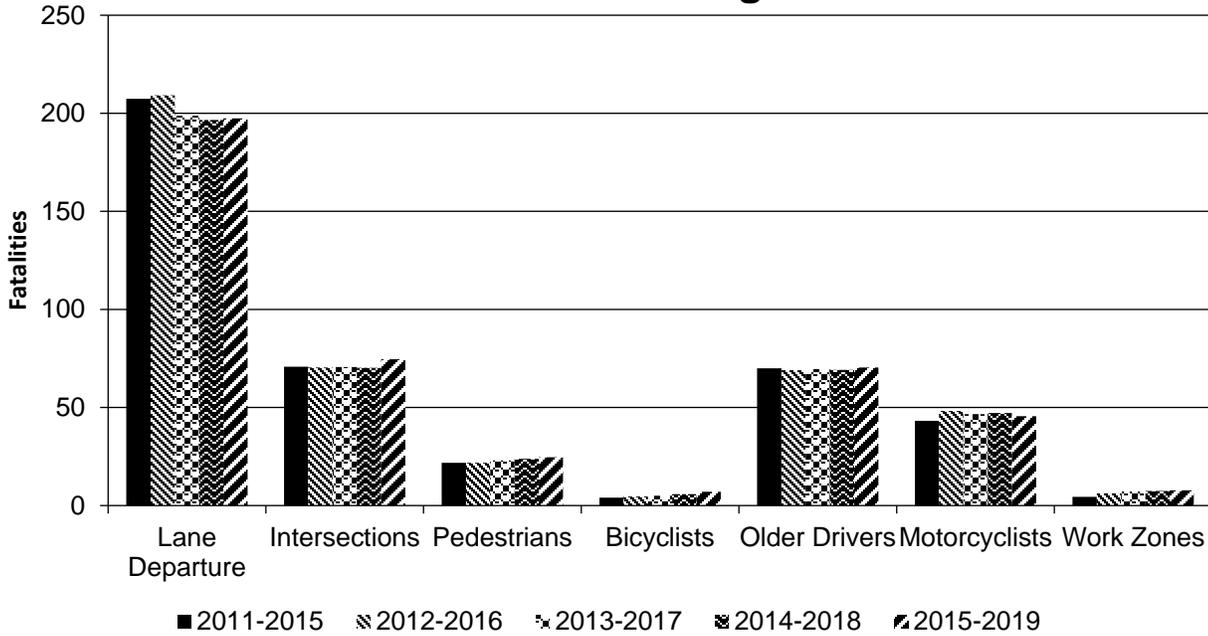
Number of Serious Injuries
5 Year Average
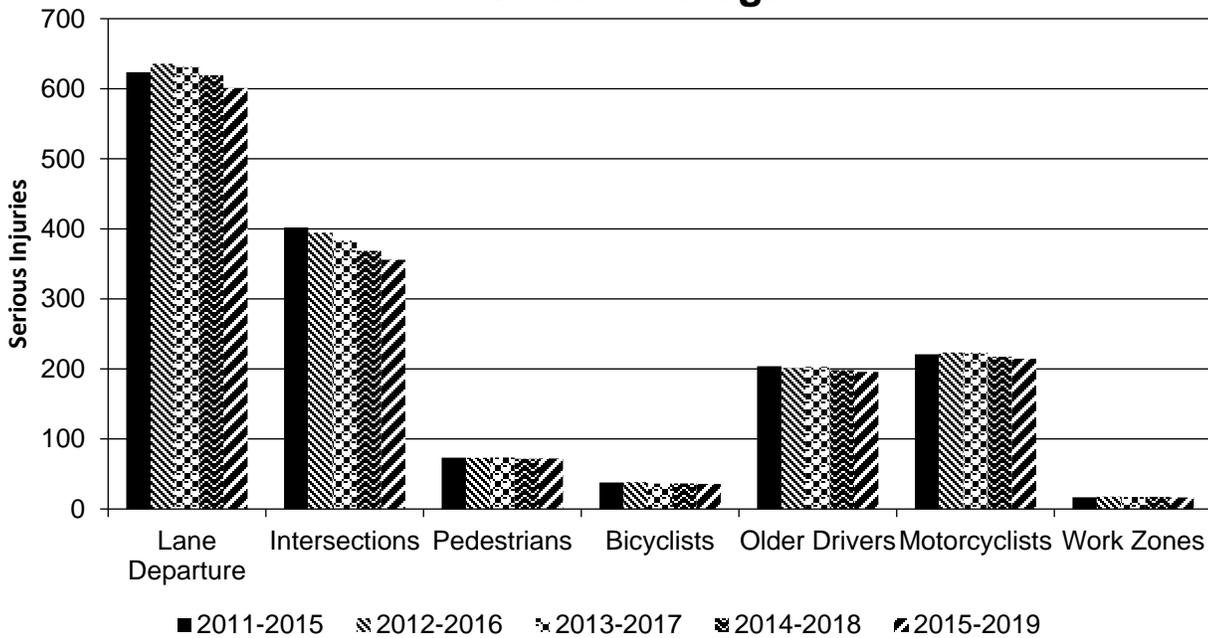
■ 2011-2015　 ▨ 2012-2016　 ヽ 2013-2017　 ▧ 2014-2018　 ◪ 2015-2019

Fatality Rate (per HMVMT)
5 Year Average

Legend: ■2011-2015 ▨2012-2016 ⌁2013-2017 ▩2014-2018 ▨2015-2019

Serious Injury Rate (per HMVMT)
5 Year Average

Legend: ■2011-2015 ▨2012-2016 ⌁2013-2017 ▩2014-2018 ▨2015-2019
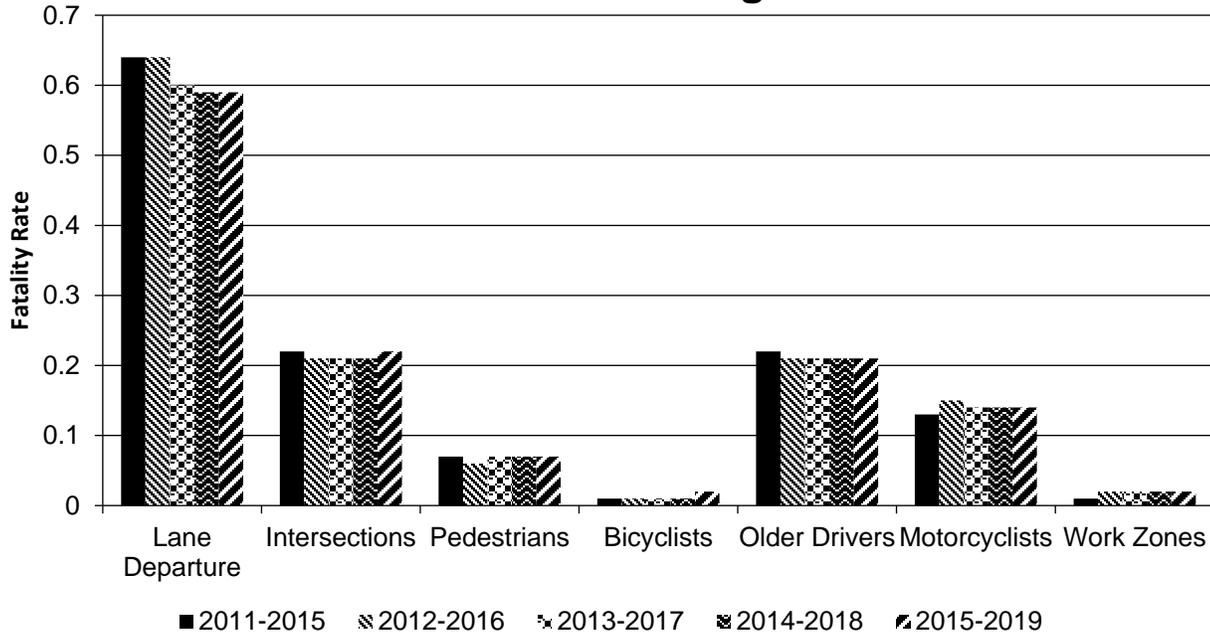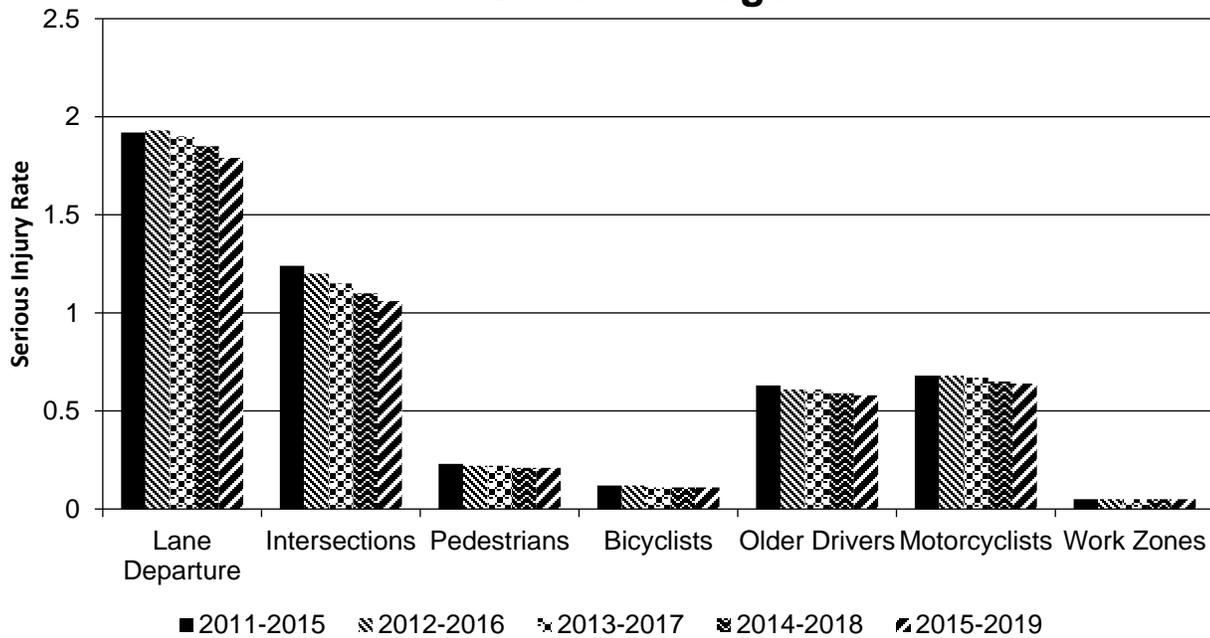
Project Effectiveness

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

Compliance Assessment

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

12/20/2018

What are the years being covered by the current SHSP?

From: 2019 To: 2023

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

2023

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

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

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	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	100					100	100	100	100
	Route Number (8) [8]	100	100								
	Route/Street Name (9) [9]	100	100								
	Federal Aid/Route Type (21) [21]	100	100								
	Rural/Urban Designation (20) [20]	100	100					100	100		
	Surface Type (23) [24]	100	100					100	100		
	Begin Point Segment Descriptor (10) [10]	100	100					100	100	100	100
	End Point Segment Descriptor (11) [11]	100	100					100	100	100	100
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	100								
	Functional Class (19) [19]	100	100					100	100	100	100

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	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	100								
	Access Control (22) [23]	100	100								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100					100	100		
	Average Annual Daily Traffic (79) [81]	100	100					100	100		
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120) [110]			100	100						
	Location Identifier for Road 1 Crossing Point (122) [112]			100	100						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	100						
	Intersection/Junction Geometry (126) [116]			100	100						
	Intersection/Junction Traffic Control (131) [131]			100	100						
	AADT for Each Intersecting Road (79) [81]			100	100						
	AADT Year (80) [82]			100	100						
	Unique Approach Identifier (139) [129]			100	100						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100	100				
	Location Identifier for Roadway at					100	100				

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	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100	100				
	Ramp Length (187) [177]					100	100				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	100				
	Roadway Type at End Ramp Terminal (199) [189]					100	100				
	Interchange Type (182) [172]					100	100				
	Ramp AADT (191) [181]					100	100				
	Year of Ramp AADT (192) [182]					100	100				
	Functional Class (19) [19]					100	100				
	Type of Governmental Ownership (4) [4]					100	100				
Totals (Average Percent Complete):		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

It is understood that individual data elements may not be 100% accurate at all times due to reporting lags.

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.
No actions required - state is already compliant.

Optional Attachments

Program Structure:

HSIP Manual FINAL FY 19.pdf
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.