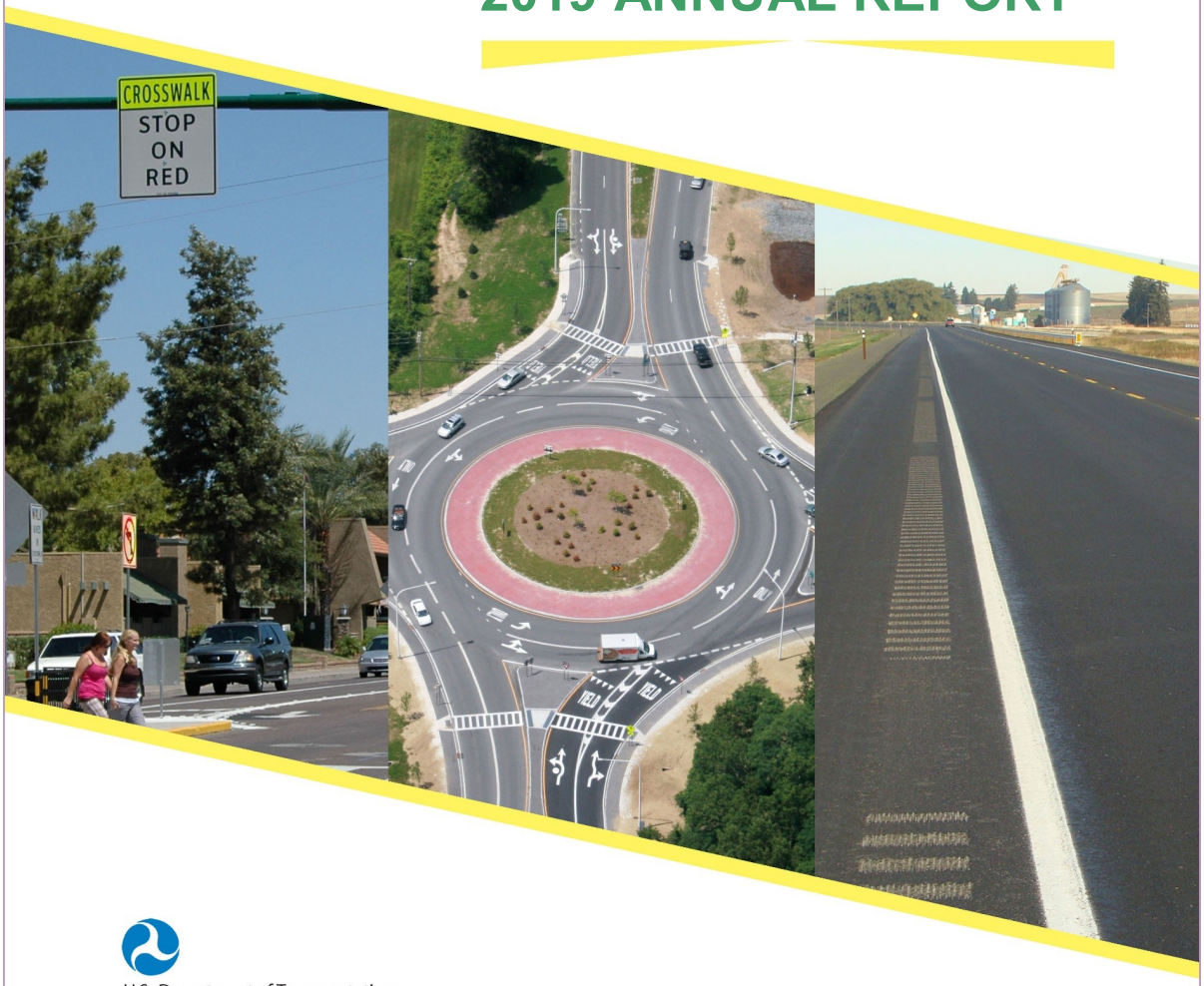
WISCONSIN

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2019 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.”

2.Executive Summary

The following report outlines the details of projects obligated in SFY2019 for Wisconsin's Highway Safety Improvement Program (HSIP). Also included are program methodologies, historical crash data and safety trends, information on subprograms, and project evaluation data.

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

3. Describe the general structure of the HSIP in the State.

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. Projects are identified by state DOT regional safety engineers on the state-owned system and by local government staff on the local system. All candidate projects must compile crash data and develop a proposed treatment strategy as part of a competitive application process. The applications are considered through a peer review process that involves statewide and regional safety engineering staff, as well as HSIP program management staff.

4. Where is HSIP staff located within the State DOT?

Other-Programming

5. How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process

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

HSIP applications from local and tribal governments are solicited by the WisDOT Regions as part of the regular HSIP Program. All HSIP applications derived from local governments are selected and submitted voluntarily by local governments. Projects on the local system or sponsored by local or tribal governments must meet the same requirements and follow the same process as HSIP applications submitted by WisDOT Regions for improvements on the State Trunk Network.

In addition, Wisconsin has continued the High Risk Rural Roads Program (HRRRP) despite its formal elimination in MAP-21. Wisconsin has developed a statewide data analysis methodology which identifies county rural roads with run-off-road non-intersection crash issues. Counties with such corridors are offered a field review of the corridor that identifies potential treatments and are invited to apply for HSIP funding to implement some or all of the identified treatment options. A primary goal of the HRRRP is to install low-cost safety treatments on these roadways to mitigate KA crash rates as quickly as possible. It is unlikely these county trunk highways would receive federal investments outside of the HRRRP.

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

- Design
- Districts/Regions
- Operations
- Planning
- Traffic Engineering/Safety
- Other-Division of State Patrol
- Other-Division of Motor Vehicles

8. Describe coordination with internal partners.

The HSIP Program is managed by WisDOT's Division of Transportation Investment Management (DTIM) and the Bureau of State of Highway Programs (BSHP). DTIM/BSHP makes all final application approvals or denials and related project change or cost increase requests. However, DTIM/BSHP coordinates its efforts with several internal partners that both directly and indirectly influence the decision making process. Below is a summary of these partners and their role in the program.

- Division of Motor Vehicles (DMV): DMV receives, edits, and maintains all law enforcement crash report files.

- Traffic Safety Council (TSC): The TSC is comprised of representatives from Division of Transportation System Development (DTSD), DTIM, DMV, Division of State Patrol (DSP), and various Executive Offices within WisDOT. Among this group's responsibilities is developing and maintaining the Wisconsin Strategic Highway Safety Plan (SHSP), which helps guide the safety efforts of the HSIP Program.

- Traffic Safety Engineering Workgroup (TSEWG): TSEWG is comprised of the State HSIP Coordinator, State Traffic Safety Engineer, and the Regional Traffic Safety Engineers. In some cases, the Regional HSIP Coordinators also participate. This group identifies and evaluates potential safety initiatives both within and outside of the HSIP Program, provides peer support, and reviews proposed HSIP projects. After a group evaluation, a recommendation to approve or not approve is forwarded to the State HSIP Coordinator for final review.

- State Project Oversight Engineers: The State Project Oversight Engineers are a critical component of the joint process with the TSEWG for application review and approval. The DTSD State Project Oversight Engineers, Regional Traffic Safety Engineers, the State Traffic Safety Engineer, and the State HSIP Coordinator provide a consensus approval or disapproval of HSIP funding after a comprehensive in-person peer review. Each Region has one Project Oversight Engineer. State Project Oversight Engineers only review applications originating from the Region in which they are assigned. This consensus approval or disapproval is advisory to the DTIM/BSHP.

9. Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Local Government Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)

10. Describe coordination with external partners.

The HSIP is fully coordinated and integrated with the work of other organizations, associations, and

stakeholders (e.g., law enforcement, academia, local governments, MPOs) that play a role in reducing fatalities and serious injuries. One of the basic foundations of the HSIP is the direct linkage between the data-driven priorities established in the Strategic Highway Safety Plan (SHSP) and the identification, development and implementation of HSIP projects. Local and regional governments alike which contribute towards achieving the goals and objectives of the SHSP help guide program decisions and project selections. More specifically, wh ere there are a high percentage of crashes that occur off the State system, WisDOT works with local jurisdictions to help them develop and implement HSIP projects that address priority safety issues on locally-owned roadways. This is either done by locals doing work as local forced accounts or they are let by WisDOT.

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

No-This question will not appear in the final report

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

No-This question will not appear in the final report

Program Methodology

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

Yes
FileName:
04-01-10e.pdf

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

- HRRR
- Median Barrier

15.Program: HRRR

Date of Program Methodology:7/1/2018

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
Other-Run off road		Functional classification

What project identification methodology was used for this program?

- Crash frequency

- Crash rate

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?

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).

15.Program: Median Barrier

Date of Program Methodology:1/1/2005

What is the justification for this program?

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

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 Other-All CMC	Other-Centerline miles	Functional classification

What project identification methodology was used for this program?

- Crash frequency

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-Non-competitive application process

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

16. What percentage of HSIP funds address systemic improvements?

31

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

- Cable Median Barriers

17. What process is used to identify potential countermeasures?

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- Other-County Traffic Safety Commission recommendations

18. Does the State HSIP consider connected vehicles and ITS technologies?

No

19. 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.

HSIP Project Prioritization

Wisconsin evaluates potential HSIP projects by comparing the estimated crash reduction benefits expected from the project and the cost of that project. Crash reduction benefits are estimated by multiplying up to two crash modification factors (CMF) by 5-years of observed crash data. CMFs and target crashes are identified by the safety analyst and a spreadsheet tool is used to calculate the estimated crash reduction benefits. The spreadsheet tool incorporates the WisDOT CMF Table and logic described in our statewide policy described at the link below.

http://wisconsindot.gov/dtsdManuals/traffic-ops/manuals-and-standards/teops/12-03.pdf

HSIP Safety Effectiveness Evaluations

Wisconsin evaluates the effectiveness of all HSIP projects that were prioritized based on crash history. The

Empirical-Bayes Before/After Safety Evaluation method, described in chapter 9 of the Highway Safety Manual, is used for these safety effectiveness evaluations. No evaluations are completed for systemic safety projects within our HSIP.

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

No-This question will not appear in the final report

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

A key component in the development of the HSIP is the Project Evaluation Factor (PEF). The PEF is a measurement that is used to evaluate and compare proposed projects. It provides a comparison of the estimated crash reduction potential of a proposed improvement with the overall cost of the project. Although it has similarities to a benefit/cost analysis, it does not include all of the elements of a traditional benefit/cost analysis tool for ranking the relative merits of a group of projects, and should not be compared to a benefit/cost analysis.

An Excel-based program is used to perform a safety project analysis and computes the PEF. The following provides a general overview of several key elements of the PEF:

• All costs associated with the project (design, utilities, real estate, construction, etc.) must be included in the PEF calculation, regardless of whether HSIP funds are requested for all elements of the project. Cost estimates must be in current year dollars.

• The analysis requires crash data from the most recent 5-year period for which crash information is available. Ideally, the analysis would include crash data from the most recent calendar year. For example, an analysis submitted in 2016 would include crash information from the 2011-2015 period. However, given that: (a) it can take several months after the end of a calendar year for the Department to finalize crash information and integrate the crash information into departmental datasets; and (b) it can take several months for a safety proposal to be developed and scoped, the use of an additional, older year of crash data is allowed. For example, an analysis submitted in calendar year 2016 may use crash data from either the 2011-2015 period or the 2010-2014 period.

For local projects, it is the responsibility of the project sponsor to compile and provide the required crash data to the regional office for the PEF evaluation.

• Although Wisconsin designs solutions to reduce all crashes, a number of targeted engineering, educational and enforcement efforts have been implemented with the defined goal of reducing crashes involving serious injuries and fatalities. Because of this focus on reducing serious injuries and fatalities, the PEF scoring mechanism assigns higher values to Type A and Fatal crashes.

• The current values used within the PEF tool to calculate the potential crash reduction benefits of a safety improvement are influenced by the Highway Safety Manual (HSM) developed by the American Association of State Highway and Transportation Officials (AASHTO).

• Standardized crash reduction factors are included in the Excel tool for a wide range of safety improvements. These factors are based on national safety research and are regularly updated as new research becomes available.

• Projects generally require a PEF of 1.0 or greater for approval. However, the HSIP Review Committee acknowledges the PEF contains many variables and that sometimes additional expense is needed to sufficiently address a safety issue. As such, the HSIP Review Committee may consider applications with a PEF greater than or equal to 0.9 for approval. Projects with a PEF less than 0.9 will not be approved.

• Projects treating locations identified on the annual "Locations of Interest Report" (LOIR) may be approved with a PEF of 0.50 or greater. LOIR locations with a PEF less than 0.5 will not be approved.

• The PEF requirement is generally waived for projects identified through a statewide safety analysis. The PEF requirement is currently waived for:

o High Risk Rural Roads Program projects

o Crossover Median Crash Initiative projects

o Bridge Friction Treatment Initiative projects

o Beam Guard Initiative projects

Project Implementation

Funds Programmed

22. Reporting period for HSIP funding.

State Fiscal Year

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$23,471,704	$23,471,704	100%
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	$2,607,967	$2,607,967	100%
Totals	$26,079,671	$26,079,671	100%

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

$4,784,022

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

$4,784,022

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

$80,000

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

$80,000

26. 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?

$21,640,320

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

Project delays can make it challenging to fully utilize HSIP funding. Such delays occur for a variety of reasons, including changes in project scope during t he design process (which triggers a required re-evaluation of the project), changes in associated projects that are linked to the HSIP project, and unforeseen issues arising during the project development process. WisDOT continues to work on developing a list of projects that could be advanced from later program years into earlier program years to ensure that HSIP funding is fully utilized even if projects are delayed or fall out of the program.

28. Does the State want to elaborate on any other aspects of its progress in implementing HSIP projects?

No-This question will not appear in the final report

General Listing of Projects

29. 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
1000-99-72				Miles	$72000	$80000	HSIP (23 U.S.C. 148)			0		State Highway Agency	HRRRP Support	Data	
1022-07-76			8.4	Miles	$393978.23	$437753.59	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	
1030-28-71			0	Miles	$737600	$819555.56	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1050-00-07				Miles	$62573	$69525.56	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	
1053-02-80			0.726	Miles	$251513.96	$279459.95	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1060-49-70			8.709	Miles	$1949952.09	$2166613.43	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1067-02-62			0	Miles	$927274.11	$1030304.57	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	
1093-01-63			1.085	Miles	$195708	$217453.33	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	
1110-13-71			4.294	Miles	$197100	$219000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1160-01-77			0	Miles	$39601.74	$44001.93	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1204-08-63			0	Miles	$1152608	$1280675.56	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	
1228-03-75			0	Miles	$250632.07	$278480.08	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1411-01-79			0.402	Miles	$1504685	$1671872.22	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Intersections	

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
1430-06-60			7.634	Miles	$361981.8	$402202	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1430-18-73			0.048	Miles	$874261.35	$971401.5	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Lane Departure	
1500-73-60			8.9	Miles	$317034	$352260	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1550-04-75			4.25	Miles	$199879.03	$222087.81	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
1560-02-75			0.166	Miles	$108101.43	$120112.7	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
1601-14-73			1.572	Miles	$1209388.5	$1343765	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Lane Departure	
1690-00-62			22.142	Miles	$278240	$309155.56	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Lane Departure	
2090-03-71			0.003	Miles	$227192.44	$252436.04	HSIP (23 U.S.C. 148)			0		City or Municipal Highway Agency	Spot	Intersections	
2110-00-72			0.004	Miles	$358054	$397837.78	HSIP (23 U.S.C. 148)			0		City or Municipal Highway Agency	Spot	Intersections	
2120-16-70			0	Miles	$679477.96	$754975.51	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
2225-14-00			2.96	Miles	$245619	$272910	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Pedestrians	
2300-06-00			2.105	Miles	$197526	$219473.33	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
2984-06-09			4.469	Miles	$90000	$100000	HSIP (23 U.S.C. 148)			0		City or Municipal Highway Agency	Spot	Lane Departure	

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
2984-09-04				Miles	$90401	$100445.56	HSIP (23 U.S.C. 148)			0		City or Municipal Highway Agency	Spot	Intersections	
2984-09-07				Miles	$88970	$98855.55	HSIP (23 U.S.C. 148)			0		City or Municipal Highway Agency	Spot	Intersections	
2998-06-70			0.509	Miles	$912536	$1013928.89	HSIP (23 U.S.C. 148)			0		City or Municipal Highway Agency	Spot	Pedestrians	
3150-05-70			3.74	Miles	$122828	$136475.56	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
3240-02-03			0.192	Miles	$62485	$69427.78	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
3773-01-70			0.331	Miles	$751207.19	$834674.65	HSIP (23 U.S.C. 148)			0		County Highway Agency	Spot	Roadway Departure	
3781-03-00			0.005	Miles	$78803	$87558.89	HSIP (23 U.S.C. 148)			0		County Highway Agency	Spot	Roadway Departure	
4100-21-71			8.51	Miles	$507462	$563846.67	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
4100-38-60			5.96	Miles	$221400	$246000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
4190-16-73			0.014	Miles	$414411	$460456.67	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Lane Departure	
4682-01-73			0.28	Miles	$1349550	$1499500	HSIP (23 U.S.C. 148)			0		County Highway Agency	Spot	Intersections	
4867-03-00			0.389	Miles	$33932	$37702.22	HSIP (23 U.S.C. 148)			0		County Highway Agency	Spot	Roadway Departure	
5300-00-71			2.719	Miles	$331098.42	$367887.13	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	

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
5410-00-62			0	Miles	$196655	$218505.56	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
5476-01-60			5.046	Miles	$252652	$280724.44	HSIP (23 U.S.C. 148)			0		County Highway Agency	Spot	Roadway Departure	
5490-00-60			0	Miles	$962846	$1069828.89	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Roadway Departure	
6085-02-74			0.274	Miles	$1284672.89	$1427414.32	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Lane Departure	
6290-09-01			0.159	Miles	$139409.1	$154899	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Lane Departure	
6610-04-00			0.049	Miles	$353432	$392702.22	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
7120-02-76			7.58	Miles	$310544.7	$345049.67	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
7130-00-75			0.409	Miles	$157089.41	$174543.79	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
8090-00-71			5.7	Miles	$274865	$305405.56	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
8140-00-73			0.251	Miles	$395702.07	$439668.97	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Lane Departure	
8140-00-74			0.007	Miles	$290249.95	$322499.94	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
8140-00-75			1.02	Miles	$344209	$382454.44	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Implement "Road Diet" by use of TWLTL	
8600-01-04			0.004	Miles	$50400	$56000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
8744-00-02			0.004	Miles	$18000	$20000	HSIP (23 U.S.C. 148)			0		County Highway Agency	Spot	Lane Departure	

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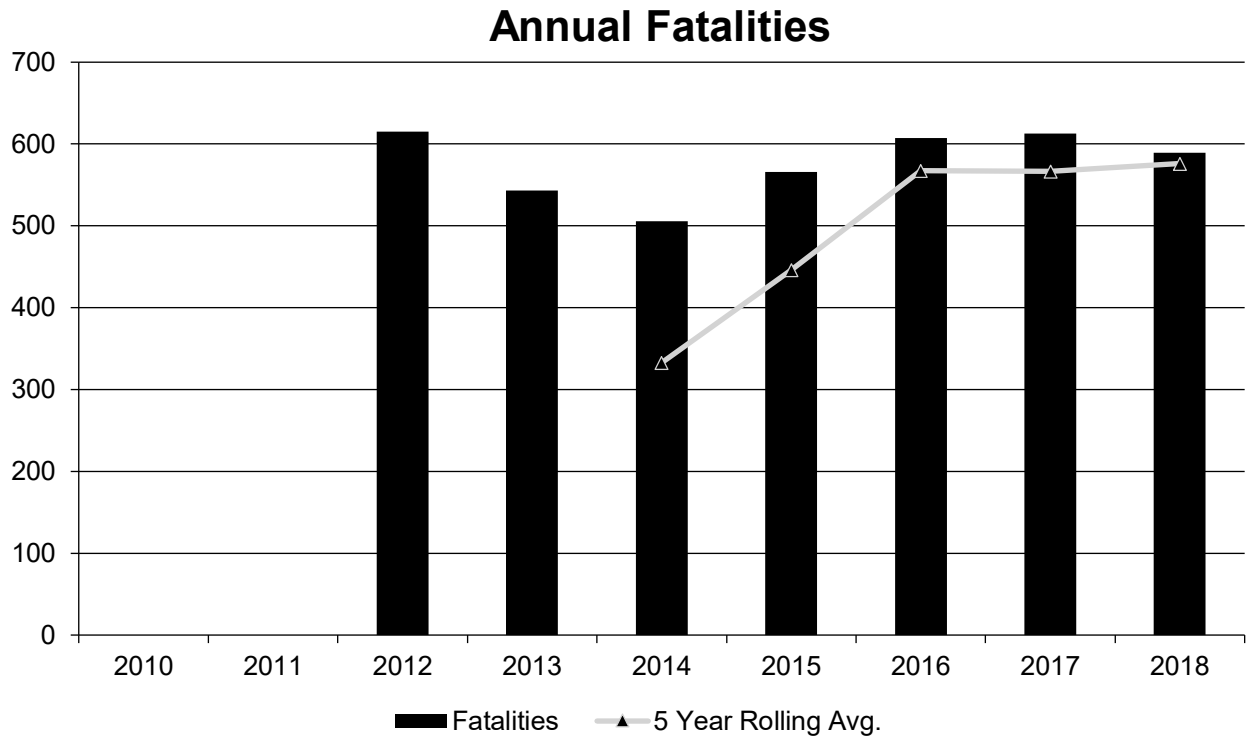
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
8944-00-07			8.885	Miles	$54322.2	$60358	HSIP (23 U.S.C. 148)			0		County Highway Agency	Spot	Roadway Departure	
9150-29-60			9.23	Miles	$365845	$406494.44	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
9170-17-60			4.958	Miles	$173744	$193048.89	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	

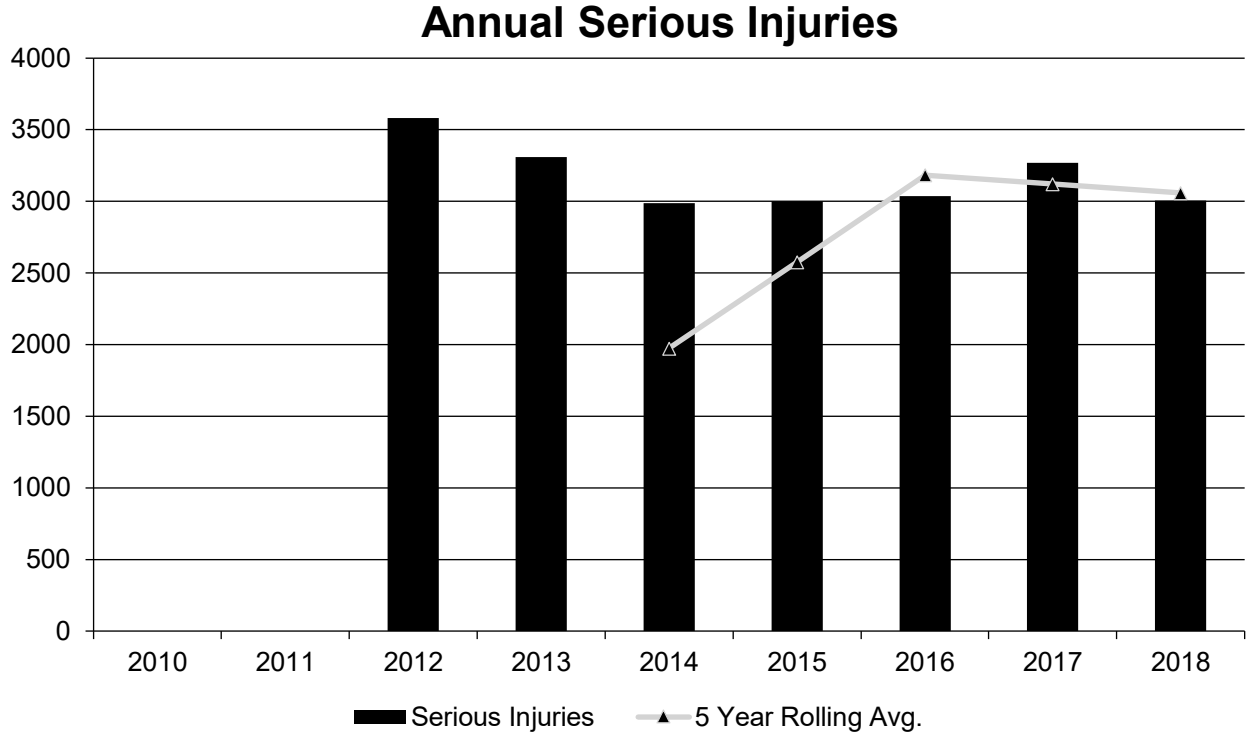
Safety Performance

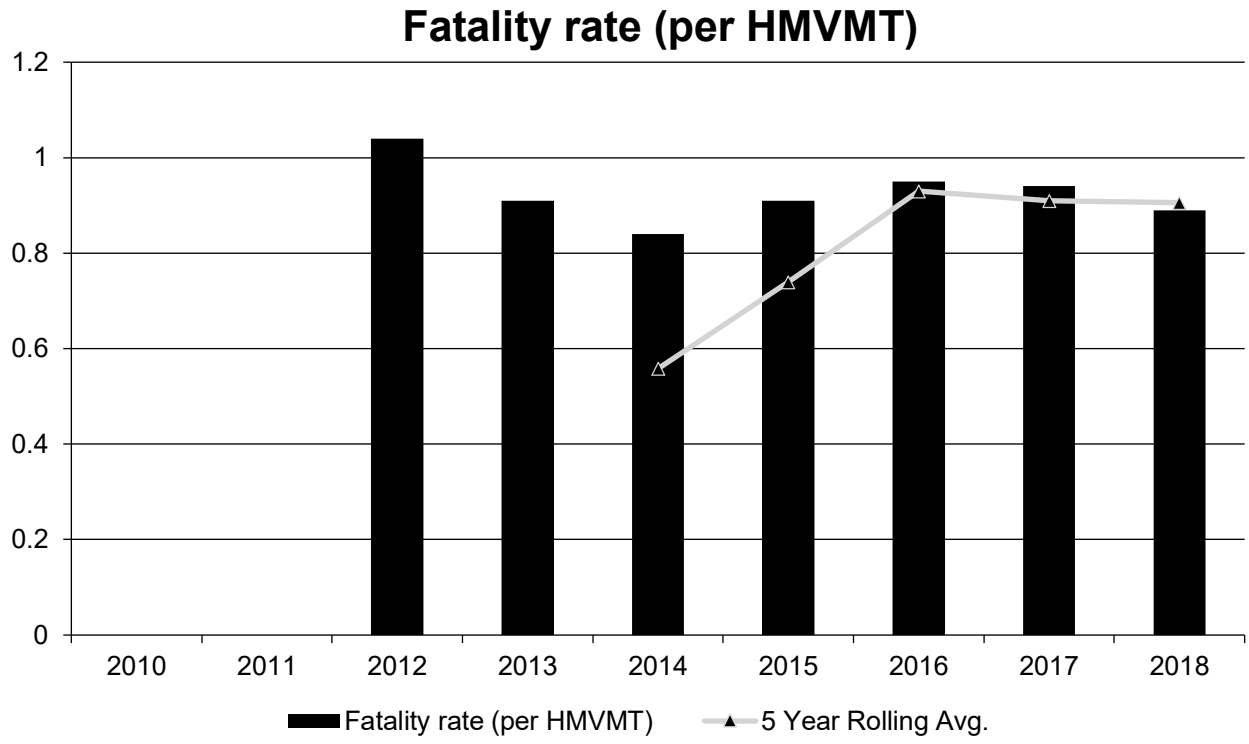
General Highway Safety Trends

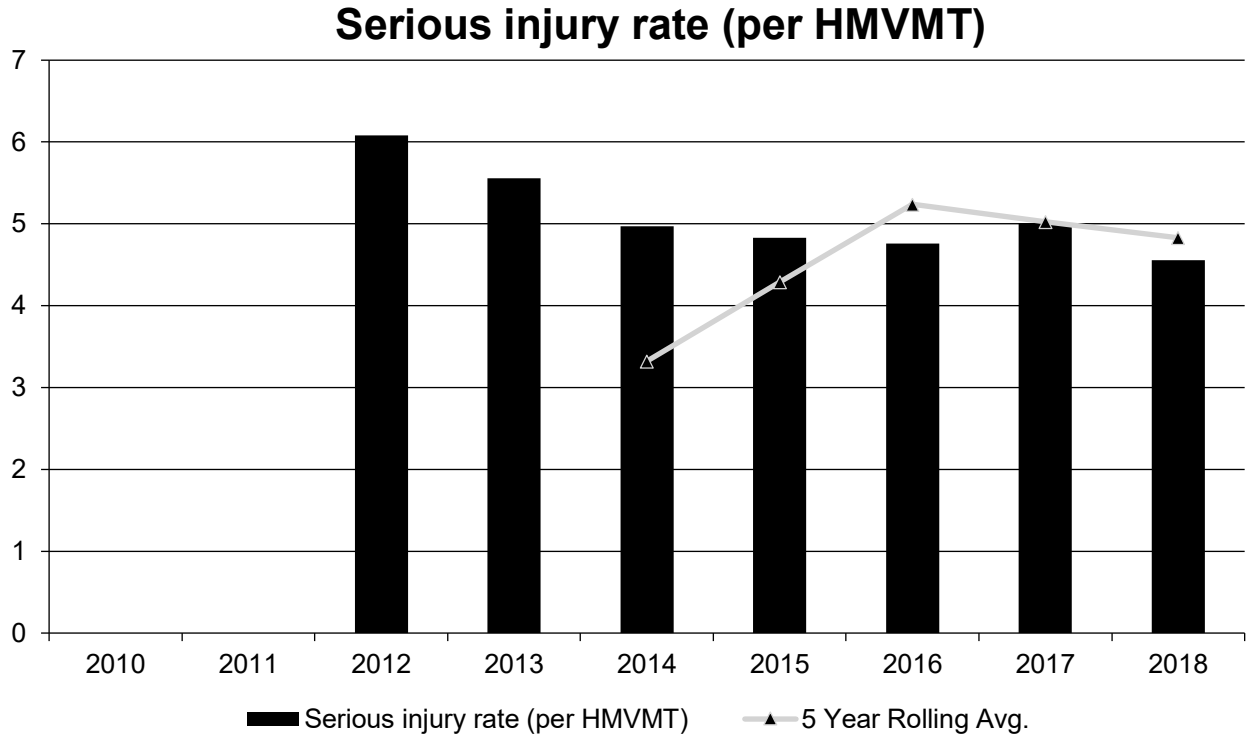
30. Present data showing the general highway safety trends in the State for the past five years.

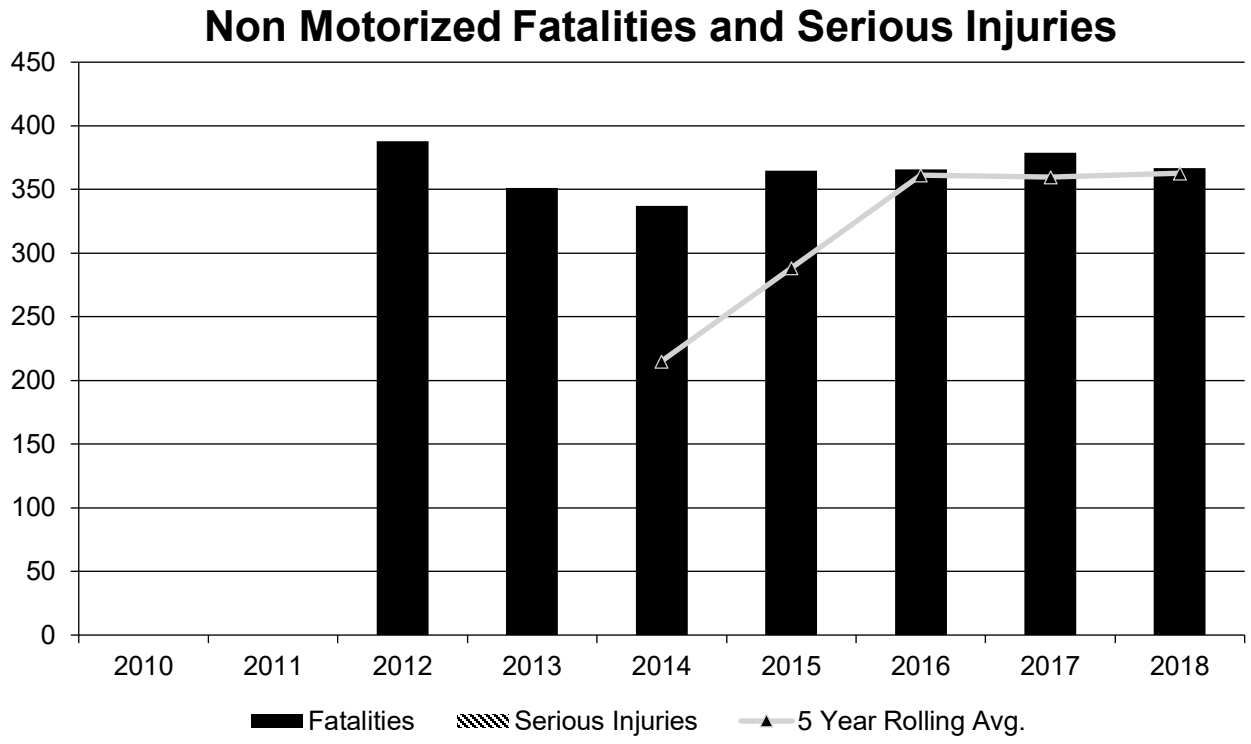
PERFORMANCE MEASURES	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fatalities	0	0	615	543	506	566	607	613	589
Serious Injuries	0	0	3,582	3,309	2,986	2,999	3,039	3,271	3,005
Fatality rate (per HMVMT)	0.000	0.000	1.040	0.910	0.840	0.910	0.950	0.940	0.890
Serious injury rate (per HMVMT)	0.000	0.000	6.080	5.560	4.970	4.830	4.760	5.010	4.560
Number non-motorized fatalities	0	0	388	351	337	365	366	379	367
Number of non-motorized serious injuries	0	0	0	0	0	0	0	0	0


Annual Fatalities
700
600
500
400
300
200
100
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
4000
3500
3000
2500
2000
1500
1000
500
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.2
1
0.8
0.6
0.4
0.2
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
7
6
5
4
3
2
1
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Some annual and baseline data has been updated to reflect finalized crash data. Original submissions reflected preliminary crash data.

31. Describe fatality data source.

FARS

32. 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				
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other				
Rural Minor Arterial				
Rural Minor Collector				
Rural Major Collector				

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				
Urban Principal Arterial (UPA) - Interstate				
Urban Principal Arterial (UPA) - Other Freeways and Expressways				
Urban Principal Arterial (UPA) - Other				
Urban Minor Arterial				
Urban Minor Collector				
Urban Major Collector				
Urban Local Road or Street				
Rural City Street	9	77.4		
Rural County Trunk Highway	103.6	499.4		
Rural Interstate Highway	25	121.4		
Rural State Trunk Highway	189.8	832.4		
Rural Town Road	62.4	330		
Urban City Street	100.2	760.2		
Urban Interstate Highway	12.4	88.2		
Urban State Trunk Highway	49	346		

Year 2018

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				
County Highway Agency				
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				

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

No-This question will not appear in the final report

Safety Performance Targets

34. Safety Performance Targets

Calendar Year 2020 Targets *

Number of Fatalities:564.7

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

Number of fatalities target is calculated as a 2% reduction from the most recent 5-year rolling average.

Number of Serious Injuries:2907.0

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

Number of serious injuries is calculated as a 5% reduction from the most recent 5-year rolling average.

Fatality Rate:0.888

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

Fatality rate (per HMVMT) target is calculated as a 2% reduction from the most recent 5-year rolling average.

Serious Injury Rate:4.585

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

Serious Injury Rate (per HMVMT) target is calculated as a 5% reduction from the most recent 5-year rolling average.

Total Number of Non-Motorized Fatalities and Serious Injuries:344.7

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

Total number of non-motorized fatalities and serious injuries target is calculated as a 5% reduction from the most recent 5-year rolling average.

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

The HSIP is fully coordinated and integrated with the work of other organizations, associations, and stakeholders (e.g., law enforcement, academia, local governments, MPOs) that play a role in reducing fatalities and serious injuries. One of the basic foundations of the HSIP is the direct linkage between the data-driven priorities established in the Strategic Highway Safety Plan (SHSP) and the identification, development and implementation of HSIP projects. Local and regional governments alike which contribute towards achieving the goals and objectives of the SHSP help guide program decisions and project selections. More specifically, where there are a high percentage of crashes that occur off the State system, WisDOT works with local jurisdictions to help them develop and implement HSIP projects that address priority safety issues on locally-owned roadways. This is either done by locals doing work as local forced accounts or they are let by WisDOT. Stakeholders will continue to contribute to and support the goals established in the SHSP. This in turn encourages safety projects that meet established safety performance targets.

WisDOT coordinates with the MPOs in the establishment of the state's annual federal safety targets reported in the HSIP. WisDOT shares Metropolitan Planning Area (MPA) level crash data with the MPOs for their analysis.

MPOs establish safety targets by developing their own MPA targets or by agreeing to support WisDOT's state targets. The approved MPO federal safety targets are reported to WisDOT.

36. Does the State want to report additional optional targets?

No

37. 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.

Wisconsin has met or made significance progress towards three of its five 2018 Federal Safety Performance Targets. The 2017 national five-year rolling average for fatalities increased over 7% relative to 2015 (2018 national data is not yet available). Wisconsin's five-year average increased 0.9% over the same timeframe, and 2.5% from 2015 to 2018. While the increases were small, Wisconsin's goal is to realize reductions; accordingly, Wisconsin remains committed to addressing safety on all public roads through all of its transportation safety programs.

Applicability of Special Rules

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

No

39. 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	2012	2013	2014	2015	2016	2017	2018
Number of Older Driver and Pedestrian Fatalities	75	78	64	99	91	92	96
Number of Older Driver and Pedestrian Serious Injuries	263	245	231	198	227	249	262

Evaluation

Program Effectiveness

40. How does the State measure effectiveness of the HSIP?

- Benefit/Cost Ratio
- Change in fatalities and serious injuries

While a simple change in fatal and serious injury crashes is an overall indicator of the effectiveness of the safety culture in the state, there are many other factors outside the scope of normal HSIP projects that influences. For this reason, we rely on a "before and after" Empirical Bayes Analysis of HSIP projects to determine their performance.

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

Resources were not available to complete a program level evaluation in this reporting cycle. WisDOT plans to complete this evaluation for the next reporting cycle.

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

- # miles improved by HSIP
- HSIP Obligations
- Increased awareness of safety and data-driven process

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

No-This question will not appear in the final report

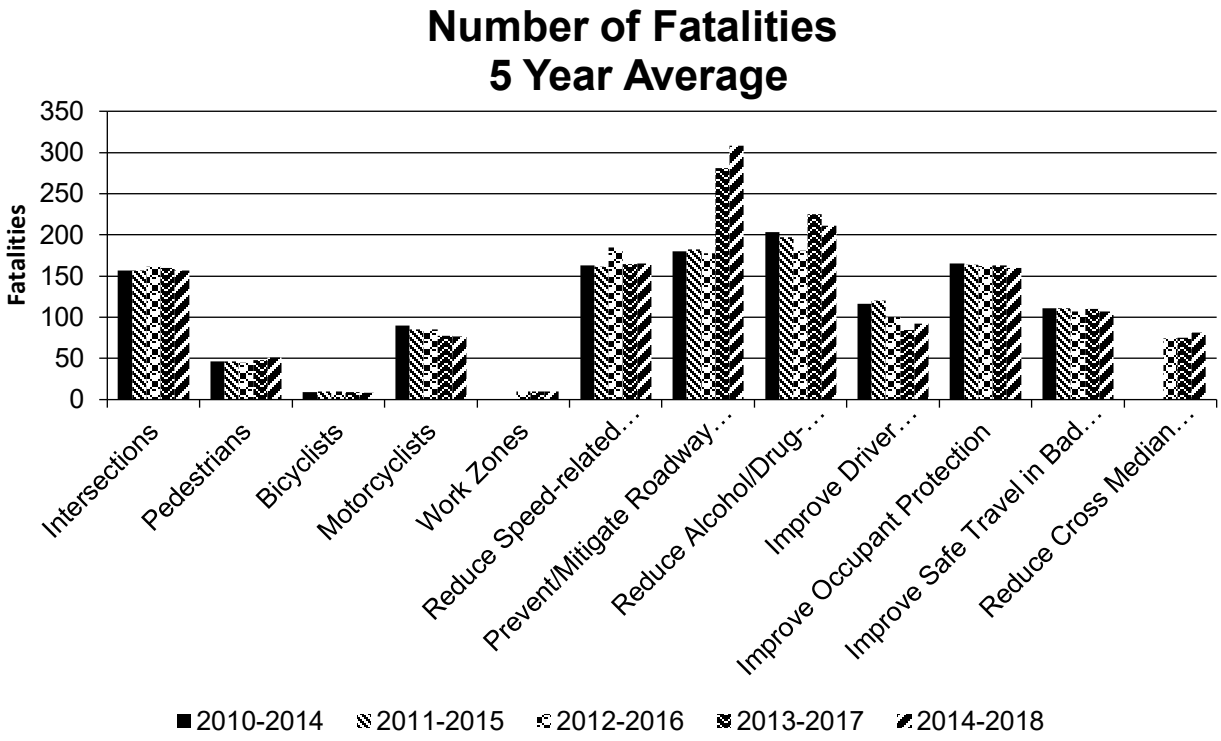
Effectiveness of Groupings or Similar Types of Improvements

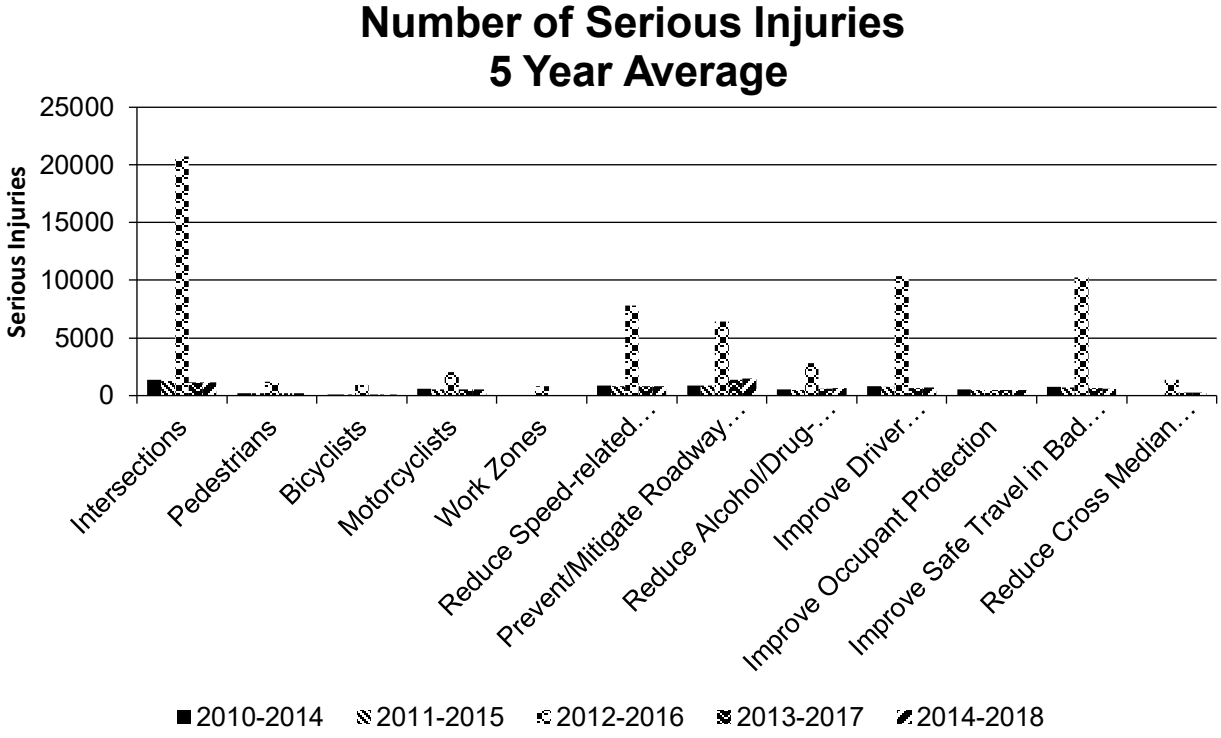
44. Present and describe trends in SHSP emphasis area performance measures.

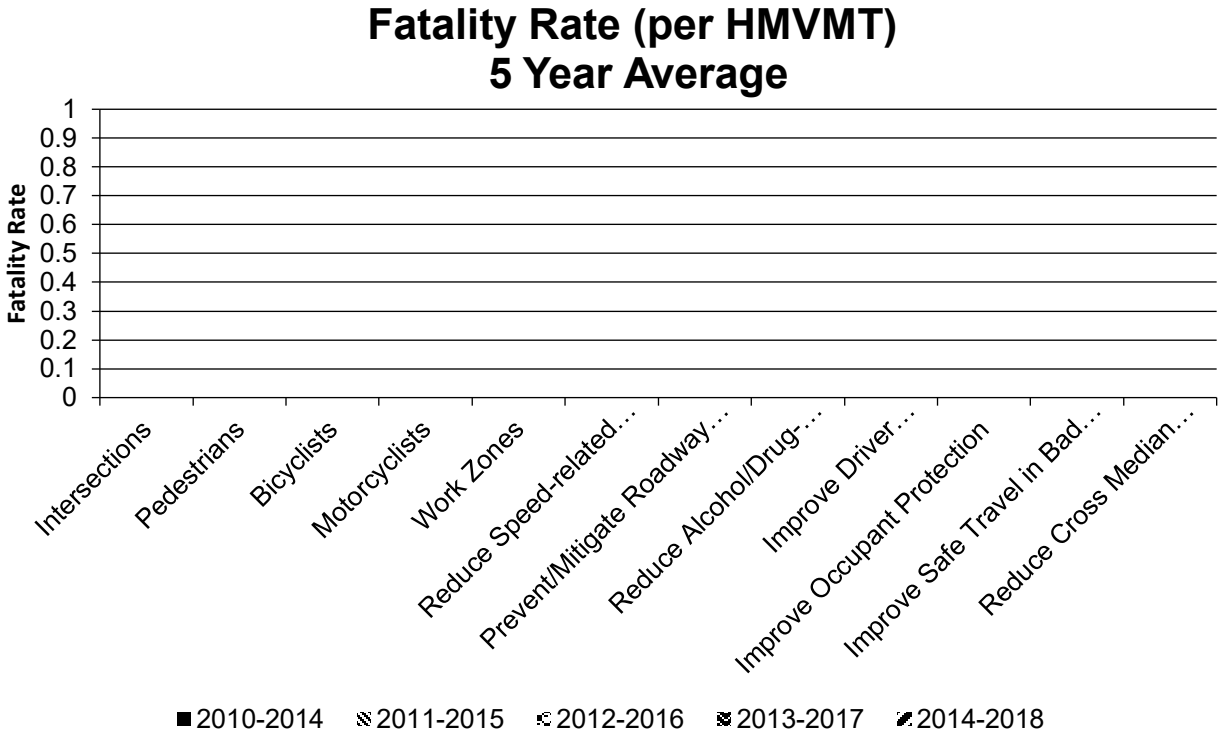
Year 2018

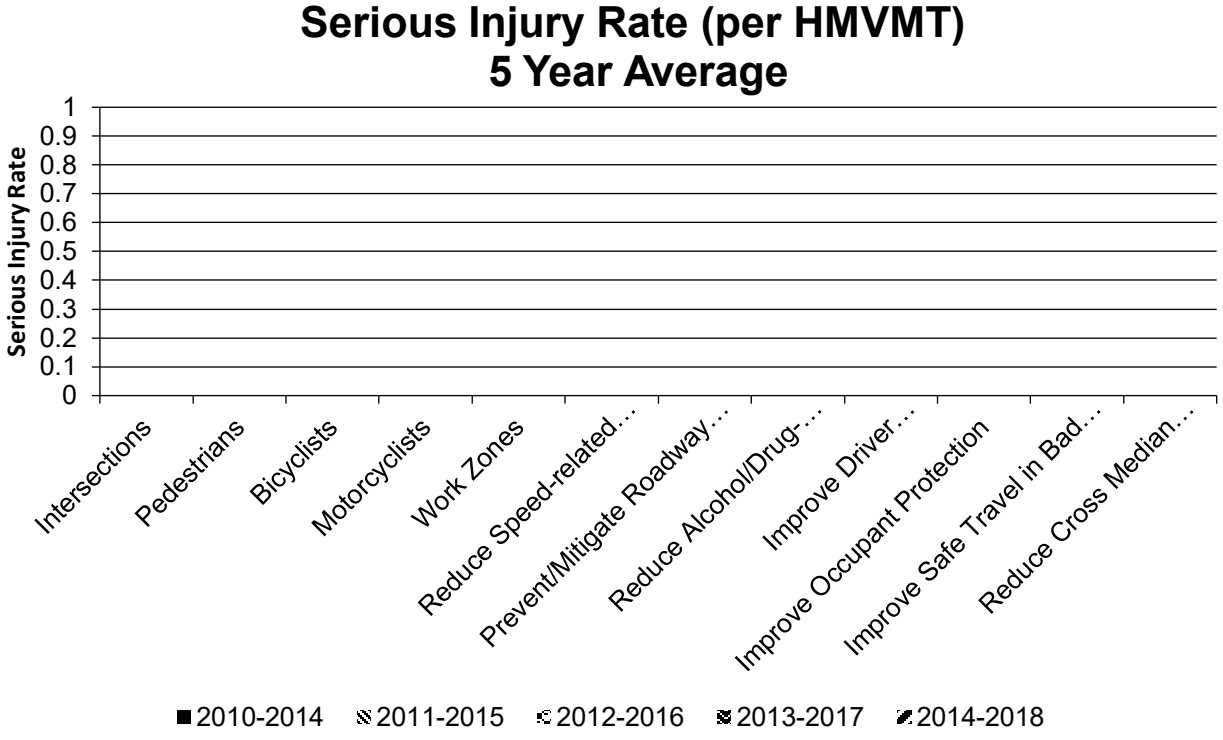
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Intersections		157	1,141.4		
Pedestrians		51.2	217		
Bicyclists		8.2	83.8		
Motorcyclists		76.8	517.6		
Work Zones		9.8	61.6		

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)
Reduce Speed-related Crashes		165.6	841.8		
Prevent/Mitigate Roadway Departure Crashes		308.2	1,475.6		
Reduce Alcohol/Drug-impaired Driving		210.8	633.2		
Improve Driver Alertness/Reduce Driver Distraction		92.4	695		
Improve Occupant Protection		159.8	481.8		
Improve Safe Travel in Bad Weather		107.2	603.2		
Reduce Cross Median Crashes		81.2	276.2		


Number of Fatalities
5 Year Average
Fatalities
350
300
250
200
150
100
50
0
Intersections
Pedestrians
Bicyclists
Motorcyclists
Work Zones
Reduce Speed-related…
Prevent/Mitigate Roadway…
Reduce Alcohol/Drug-…
Improve Driver…
Improve Occupant Protection
Improve Safe Travel in Bad…
Reduce Cross Median…
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018


Number of Serious Injuries
5 Year Average
Serious Injuries
25000
20000
15000
10000
5000
0
Intersections
Pedestrians
Bicyclists
Motorcyclists
Work Zones
Reduce Speed-related…
Prevent/Mitigate Roadway…
Reduce Alcohol/Drug-…
Improve Driver…
Improve Occupant Protection
Improve Safe Travel in Bad…
Reduce Cross Median…
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018





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

No

Project Effectiveness

46. 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)
x														

Evaluation planned for 2020

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

No-This question will not appear in the final report

Compliance Assessment

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

11/07/2017

What are the years being covered by the current SHSP?

From: 2017 To: 2020

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

2020

49. 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	
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	7								
	Access Control (22)	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	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	One/Two Way Operations (91)	100	100								
	Number of Through Lanes (31)	100	100					100	100		
	Average Annual Daily Traffic (79)	100	65					100	1		
	AADT Year (80)	100	65								
	Type of Governmental Ownership (4)	100	65					100	100	100	100
INTERSECTION	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							
	AADT for Each Intersecting Road (79)			100							
	AADT Year (80)			100							
	Unique Approach Identifier (139)			100							
INTERCHANGE/RAMP	Unique Interchange Identifier (178)					100	100				
	Location Identifier for Roadway at Beginning of Ramp Terminal (197)					100	100				
	Location Identifier for Roadway at Ending Ramp Terminal (201)					100	100				
	Ramp Length (187)					100	100				

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)					100	100				
	Roadway Type at End Ramp Terminal (199)					100	100				
	Interchange Type (182)										
	Ramp AADT (191)					100	100				
	Year of Ramp AADT (192)					100	100				
	Functional Class (19)					100	100				
	Type of Governmental Ownership (4)					100	100				
Totals (Average Percent Complete):		**100.00**	**89.00**	**100.00**	**0.00**	**90.91**	**90.91**	**100.00**	**89.00**	**100.00**	**100.00**

*Based on Functional Classification

50. 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.

Wisconsin already collects most of the MIRE FDEs. Based on current data collection efforts and targets, Wisconsin is on track to meet the September 30, 2026 deadline.

51. 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

Optional Attachments

Program Structure:

04-01-10e.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.