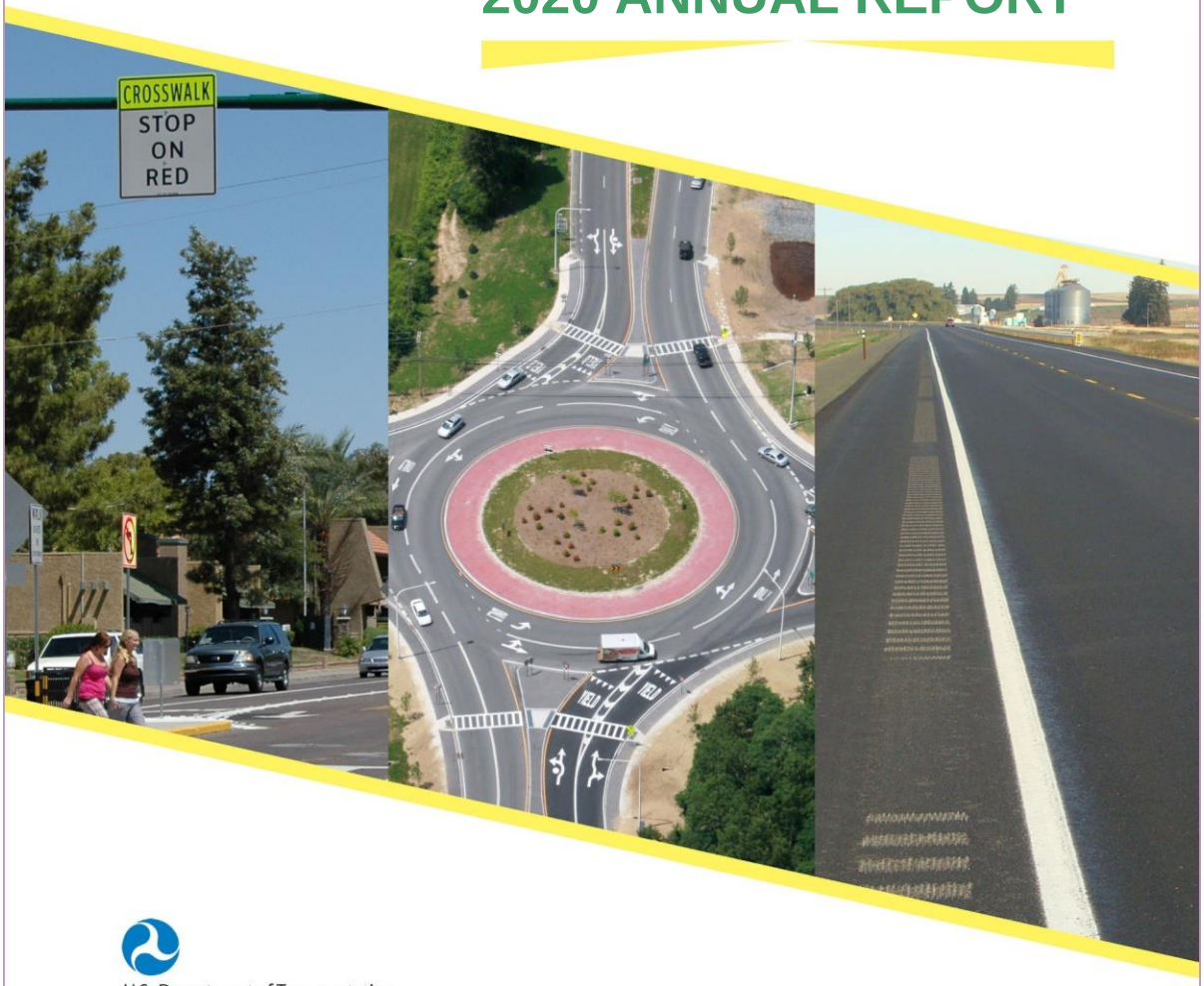
WISCONSIN

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2020 ANNUAL REPORT



U.S. Department of Transportation
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

The following report outlines the details of projects obligated in SFY2020 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

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.

Where is HSIP staff located within the State DOT?

Other-Programming

How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process

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, at no cost, 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.

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

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.

Identify which external partners are involved with HSIP planning.

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

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.

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

All HSIP projects involving a change in intersection traffic control or a complete intersection reconstruction on the state highway system, including connecting highways, shall follow the current Facilities Development Manual (FDM) policy for Intersection Control Evaluation (ICE). This policy can be found in FDM 11-25-3.

Previous HSIP policy required an ICE for local projects. The new policy, which follows FDM 11-25-3, does not require an ICE for local projects, but does recommend these projects still follow the ICE process.

Program Methodology

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

Yes

Select the programs that are administered under the HSIP.

- HRRR
- Median Barrier

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).

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

What percentage of HSIP funds address systemic improvements?

16

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

- Cable Median Barriers
- Other-High Risk Rural Roads

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

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.

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.

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. WisDOT facilitates this process by providing funding to the University of Wisconsin Traffic Operations and Safety Laboratory (UW TOPS Lab) to make this data available to local governments.

• 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 these crash types.

• 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 Beam Guard Initiative projects

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year
The reporting period for HSIP funding in this report is State Fiscal Year (SFY). The information provided in this report is for SFY 2020, which ran from July 1, 2019 to June 30, 2020.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$36,357,643	$36,357,643	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	$4,039,738	$4,039,738	100%
Totals	$40,397,381	$40,397,381	100%

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

$3,648,329

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

$3,648,329

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

$310,409

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

$310,409
There were three non-infrastructure projects funding with through HSIP in SFY 2020. They were:
1. WisDOT High Risk Rural Roads Program support contract (1000-99-73) for $88,888.89
2. SHSP development contract (1000-99-74) for $50,000
3. HSIP support contract (1000-99-75) for $171,520. This contract is for two years of support for the HSIP to perform tasks such as project evaluations, horizontal curve analysis, cross median crash analysis, etc.

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?

$22,122,829
WisDOT is reporting out on State Fiscal Year 2020 projects, however HSIP funding is based on a Federal Fiscal Year calendar. For clarification, the following transfers out of HSIP to other core program areas were completed:

August 2019 transferred out of HSIP $22,122,829 (FFY 2019 transfer)
August 2020 transferred out of HSIP $22,468,956 (FFY 2020 transfer)

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 the 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.

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
1000-99-73	Non-infrastructure	Road safety audits	1	Numbers	$80000	$88888.89	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	HRRRP Support	Data	
1000-99-74	Non-infrastructure	Transportation safety planning	1	Numbers	$45000	$50000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	SHSP Support	Data	
1000-99-75	Non-infrastructure	Non-infrastructure - other	1	Numbers	$154368	$171520	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	HSIP Support	Data	
1011-01-64	Roadway	Roadway - other	0.379	Miles	$720900	$801000	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other Freeways & Expressways	51,700		State Highway Agency	Spot	Lane Departure	
1030-15-70	Roadway	Pavement surface - high friction surface	0.522	Miles	$837486.38	$930540.42	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other Freeways & Expressways	34,000		State Highway Agency	Spot	Lane Departure	
1050-00-77	Roadside	Barrier - cable	0	Miles	$380801.84	$423113.15	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	11,700		State Highway Agency	Systemic	Lane Departure	
1050-02-72	Roadside	Barrier - cable	0	Miles	$518490.77	$576100.86	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	13,500		State Highway Agency	Systemic	Lane Departure	
1100-27-70	Roadside	Barrier - cable	8.96	Miles	$1951755.69	$2168617.43	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other Freeways & Expressways	52,500		State Highway Agency	Systemic	Lane Departure	
1160-01-78	Roadside	Barrier - cable	0	Miles	$1660071.3	$1844523.67	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other Freeways & Expressways	27,400		State Highway Agency	Systemic	Lane Departure	
1190-02-79	Roadside	Barrier - cable	0	Miles	$139955.27	$155505.85	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other Freeways & Expressways	38,400		State Highway Agency	Systemic	Lane Departure	
1198-00-77	Access management	Change in access - close or restrict existing access	0.319	Miles	$551880	$613200	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	6,050		State Highway Agency	Spot	Intersections	
1320-07-03	Intersection traffic control	Modify control - all-way stop to roundabout	0.004	Miles	$403245	$448050	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	7,340		State Highway Agency	Spot	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
1410-01-01	Intersection traffic control	Modify control - all-way stop to roundabout	0.39	Miles	$342990	$381100	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	10,000		State Highway Agency	Spot	Intersections	
1520-00-76	Intersection geometry	Intersection geometrics - modify skew angle	0.081	Miles	$117111.66	$130124.07	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	3,830		State Highway Agency	Spot	Lane Departure	
1570-00-76	Roadway	Rumble strips - edge or shoulder	5.433	Miles	$205739.47	$228599.41	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	6,100		State Highway Agency	Spot	Lane Departure	
1570-00-77	Roadway	Rumble strips - edge or shoulder	9.749	Miles	$377638.87	$419598.74	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	6,100		State Highway Agency	Spot	Lane Departure	
1570-02-77	Intersection geometry	Auxiliary lanes - add left-turn lane	0.5	Miles	$868680	$965200	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	7,520		State Highway Agency	Spot	Lane Departure	
1570-05-76	Access management	Change in access - close or restrict existing access	0.3	Miles	$567158	$630175.56	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	4,900		State Highway Agency	Spot	Intersections	
1570-05-77	Intersection traffic control	Intersection flashers - add overhead (actuated)	0.3	Miles	$99079.1	$110087.89	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	7,350		State Highway Agency	Spot	Lane Departure	
1640-01-73	Intersection geometry	Auxiliary lanes - add left-turn lane	0.614	Miles	$789911	$877678.89	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	6,725		State Highway Agency	Spot	Lane Departure	
1670-02-77	Alignment	Horizontal curve realignment	1.439	Miles	$0	$349269.34	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	12,530		State Highway Agency	Spot	Lane Departure	
1670-02-77	Alignment	Horizontal curve realignment	1.439	Miles	$5941836	$6252770.67	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	12,530		State Highway Agency	Spot	Lane Departure	
2110-00-03	Intersection geometry	Auxiliary lanes - add left-turn lane	0.032	Miles	$175203	$194670	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	12,600		City or Municipal Highway Agency	Spot	Lane Departure	
2160-05-01	Intersection traffic control	Modify traffic signal - add additional signal heads	0.008	Miles	$68598	$76220	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	10,800		City or Municipal Highway Agency	Spot	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
2225-14-70	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	2.96	Miles	$924784.17	$1027537.97	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	11,000		State Highway Agency	Spot	Pedestrians	
2265-00-08	Intersection traffic control	Modify traffic signal - add additional signal heads	0.085	Miles	$180000	$200000	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	0		City or Municipal Highway Agency	Spot	Intersections	
2310-14-70	Intersection traffic control	Modify control - all-way stop to roundabout	0.331	Miles	$1620000	$1800000	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	13,110		State Highway Agency	Spot	Intersections	
2410-03-03	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	0.76	Miles	$295713	$328570	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	17,000		State Highway Agency	Spot	Lane Departure	
2545-03-02	Intersection traffic control	Modify traffic signal - add additional signal heads	0.019	Miles	$185400	$206000	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	45,300		State Highway Agency	Spot	Intersections	
2565-02-01	Intersection traffic control	Modify traffic signal - add additional signal heads	0.037	Miles	$173424	$192693.33	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	37,500		State Highway Agency	Spot	Intersections	
2712-03-00	Intersection traffic control	Modify traffic signal - add additional signal heads	0.003	Miles	$143848	$159831.11	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	8,850		City or Municipal Highway Agency	Spot	Intersections	
2782-13-70	Intersection traffic control	Intersection traffic control - other	0.005	Miles	$1753169	$1947965.56	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	19,700		State Highway Agency	Spot	Intersections	
2967-00-07	Intersection traffic control	Modify traffic signal - add additional signal heads	0.117	Miles	$247254	$274726.67	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	0		City or Municipal Highway Agency	Spot	Intersections	
2978-02-00	Intersection traffic control	Intersection traffic control - other	1.407	Miles	$178202	$198002.22	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	25,400		City or Municipal Highway Agency	Spot	Intersections	
2984-13-04	Intersection traffic control	Modify traffic signal - add additional signal heads	0.002	Miles	$180000	$200000	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	28,700		City or Municipal Highway Agency	Spot	Intersections	
2990-14-70	Intersection traffic control	Modify traffic signal - add	0.006	Miles	$566175	$629083.33	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	19,500		State Highway Agency	Spot	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
		additional signal heads													
2995-04-04	Intersection traffic control	Intersection traffic control - other	0.005	Miles	$136269	$151410	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	25,900		City or Municipal Highway Agency	Spot	Intersections	
2995-05-07	Intersection traffic control	Modify traffic signal - add additional signal heads	0.017	Miles	$60255	$66950	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	27,300		City or Municipal Highway Agency	Spot	Intersections	
3120-12-00	Intersection traffic control	Modify traffic signal - add additional signal heads	0.698	Miles	$73800	$82000	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	16,500		State Highway Agency	Spot	Intersections	
3190-08-70	Roadway	Rumble strips - edge or shoulder	1.4	Miles	$226853	$252058.89	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	8,120		State Highway Agency	Spot	Lane Departure	
3200-01-72	Roadway	Rumble strips - edge or shoulder	7.865	Miles	$563522	$626135.56	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	9,200		State Highway Agency	Spot	Lane Departure	
3240-02-73	Roadway	Pavement surface - high friction surface	0.192	Miles	$111388.83	$123765.37	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	12,300		State Highway Agency	Spot	Lane Departure	
3670-00-73	Intersection geometry	Splitter island - install on one or more approaches	0.109	Miles	$291092.46	$323436.07	HSIP (23 U.S.C. 148)	N/A	Major Collector	2,850		State Highway Agency	Spot	Lane Departure	
3779-03-00	Intersection geometry	Intersection geometrics - modify skew angle	0.009	Miles	$44496	$49440	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	3,900		County Highway Agency	Spot	Lane Departure	
3782-04-00	Alignment	Horizontal curve realignment	0.015	Miles	$125145	$139050	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	2,330		County Highway Agency	Spot	Lane Departure	
3887-01-02	Intersection geometry	Auxiliary lanes - add left-turn lane	0.042	Miles	$40500	$45000	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	15,970		City or Municipal Highway Agency	Spot	Lane Departure	
4867-03-70	Roadway	Pavement surface - high friction surface	0.389	Miles	$222029.99	$246699.99	HSIP (23 U.S.C. 148)	N/A	Major Collector	2,500		County Highway Agency	Spot	Lane Departure	
5155-02-63	Roadside	Barrier - cable	0.01	Miles	$425404.45	$472671.61	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	21,400		State Highway Agency	Systemic	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
5263-00-30	Roadway	Rumble strips - edge or shoulder	4.652	Miles	$56176	$62417.78	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	1,100		County Highway Agency	Systemic	Lane Departure	
5310-02-63	Roadway	Rumble strips - edge or shoulder	4.979	Miles	$154402	$171557.78	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	12,680		State Highway Agency	Spot	Lane Departure	
5540-00-60	Roadway	Rumble strips - edge or shoulder	2.095	Miles	$78974.89	$87749.88	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	2,100		State Highway Agency	Spot	Lane Departure	
5897-00-30	Roadway	Rumble strips - edge or shoulder	11.418	Miles	$97200	$108000	HSIP (23 U.S.C. 148)	N/A	Major Collector	3,730		County Highway Agency	Systemic	Lane Departure	
5899-00-30	Roadway	Rumble strips - edge or shoulder	3.485	Miles	$44113	$49014.45	HSIP (23 U.S.C. 148)	N/A	Major Collector	1,400		County Highway Agency	Systemic	Lane Departure	
5944-01-60	Roadway	Rumble strips - edge or shoulder	12.732	Miles	$326365.9	$362628.78	HSIP (23 U.S.C. 148)	N/A	N/A	2,900		State Highway Agency	Spot	Lane Departure	
5980-01-30	Roadway	Rumble strips - edge or shoulder	3.66	Miles	$25492.5	$28325	HSIP (23 U.S.C. 148)	N/A	Major Collector	3,300		County Highway Agency	Systemic	Lane Departure	
5990-01-27	Intersection traffic control	Modify traffic signal - add additional signal heads	0.074	Miles	$46350	$51500	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	18,950		City or Municipal Highway Agency	Spot	Intersections	
5990-01-29	Intersection traffic control	Modify traffic signal - add additional signal heads	0.063	Miles	$46080	$51200	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	15,500		City or Municipal Highway Agency	Spot	Intersections	
5996-00-07	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	2.28	Miles	$193488	$214986.67	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	5,600		City or Municipal Highway Agency	Spot	Lane Departure	
6020-04-61	Roadway	Rumble strips - edge or shoulder	5.718	Miles	$123422.24	$137135.82	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	5,700		State Highway Agency	Spot	Lane Departure	
6130-04-60	Roadway	Rumble strips - edge or shoulder	13.832	Miles	$460507.12	$511674.58	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	4,400		State Highway Agency	Spot	Lane Departure	
6610-04-00	Intersection traffic control	Modify control - two-way stop to roundabout	0.049	Miles	$353432	$392702.22	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	7,340		State Highway Agency	Spot	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
6639-00-72	Intersection geometry	Auxiliary lanes - add right-turn lane	0.148	Miles	$230261	$255845.56	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	4,920		State Highway Agency	Spot	Intersections	
6949-00-03	Roadway	Rumble strips - edge or shoulder	12.084	Miles	$85647	$95163.33	HSIP (23 U.S.C. 148)	N/A	Major Collector	3,000		County Highway Agency	Systemic	Lane Departure	
6999-02-70	Intersection traffic control	Intersection traffic control - other	0.014	Miles	$502735.78	$558595.31	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	6,280		City or Municipal Highway Agency	Spot	Intersections	
6999-03-72	Intersection geometry	Auxiliary lanes - add right-turn lane	0.054	Miles	$191882.85	$213203.17	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	8,040		State Highway Agency	Spot	Lane Departure	
7028-00-03	Intersection traffic control	Intersection traffic control - other	0.01	Miles	$64890	$72100	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	27,000		State Highway Agency	Spot	Lane Departure	
7090-00-74	Intersection traffic control	Intersection traffic control - other	0.02	Miles	$605736.87	$673040.97	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	14,000		State Highway Agency	Spot	Intersections	
7090-02-71	Roadway	Rumble strips - edge or shoulder	5.606	Miles	$225261	$250290	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	6,100		State Highway Agency	Spot	Lane Departure	
7117-00-30	Roadway	Rumble strips - edge or shoulder	4.64	Miles	$61920	$68800	HSIP (23 U.S.C. 148)	N/A	Major Collector	1,600		County Highway Agency	Systemic	Lane Departure	
7130-00-78	Roadway	Rumble strips - edge or shoulder	4.88	Miles	$118903.39	$132114.88	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	8,080		State Highway Agency	Spot	Lane Departure	
7130-08-75	Roadway	Rumble strips - edge or shoulder	15.95	Miles	$566307.53	$629230.59	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	4,460		State Highway Agency	Spot	Lane Departure	
7200-02-73	Access management	Change in access - close or restrict existing access	0.222	Miles	$1530000	$1700000	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	13,750		State Highway Agency	Spot	Intersections	
7220-00-61	Roadway	Rumble strips - edge or shoulder	6.633	Miles	$270450	$300500	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	2,200		State Highway Agency	Spot	Lane Departure	
7600-01-05	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1.07	Miles	$171495	$190550	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	16,200		State Highway Agency	Spot	Lane Departure	

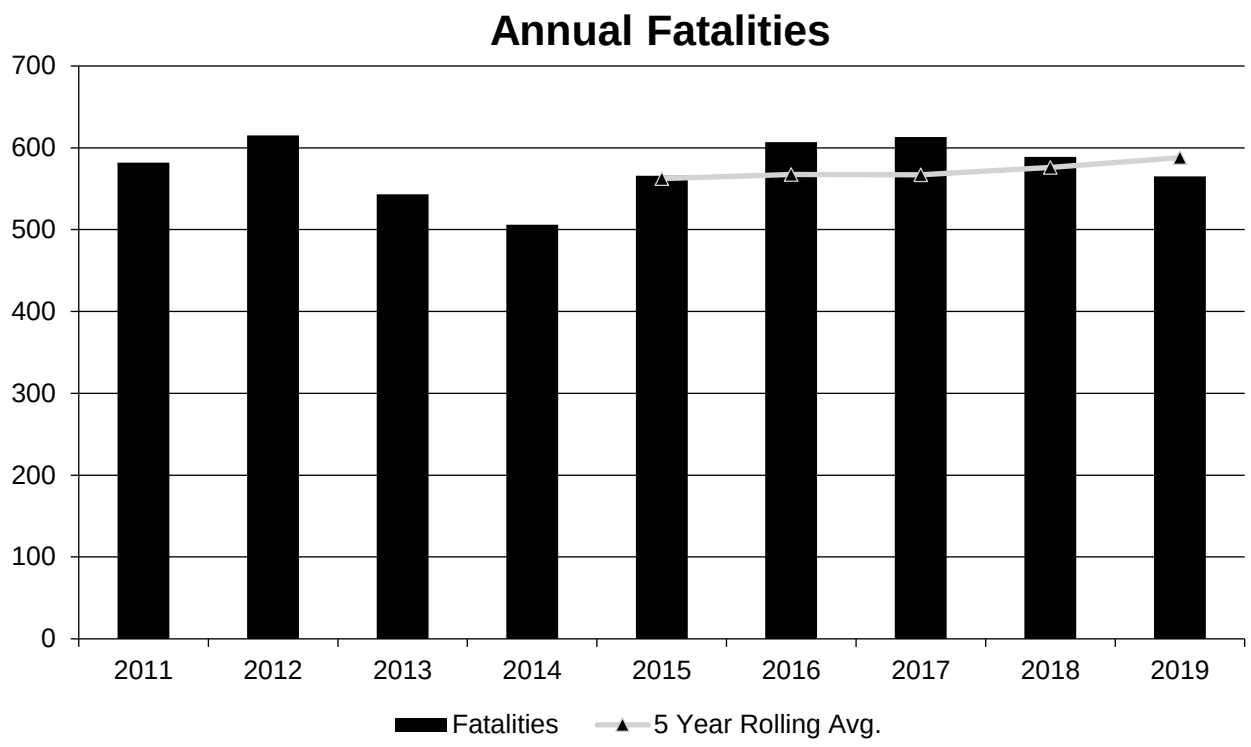
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
7735-01-62	Roadway	Rumble strips - edge or shoulder	9.63	Miles	$70317	$78130	HSIP (23 U.S.C. 148)	N/A	Major Collector	870		State Highway Agency	Spot	Lane Departure	
7896-02-00	Roadway	Rumble strips - edge or shoulder	7.78	Miles	$153383	$170425.56	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	0		County Highway Agency	Systemic	Lane Departure	
7930-08-70	Shoulder treatments	Widen shoulder - paved or other	5.493	Miles	$702123.66	$780137.4	HSIP (23 U.S.C. 148)	N/A	Major Collector	1,400		State Highway Agency	Spot	Lane Departure	
8060-04-72	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	0.5	Miles	$403142	$447935.56	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	7,400		State Highway Agency	Spot	Lane Departure	
8110-01-06	Intersection geometry	Auxiliary lanes - modify left-turn lane offset	0.028	Miles	$69525	$77250	HSIP (23 U.S.C. 148)	N/A	Principal Arterial-Other	15,500		State Highway Agency	Spot	Lane Departure	
8120-00-72	Intersection traffic control	Modify control - two-way stop to roundabout	0.156	Miles	$1176152.85	$1306836.5	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	12,000		State Highway Agency	Spot	Intersections	
8744-00-72	Intersection traffic control	Intersection flashers - add overhead (actuated)	0	Miles	$46350	$51500	HSIP (23 U.S.C. 148)	N/A	Major Collector	900		County Highway Agency	Spot	Lane Departure	
8923-09-00	Roadway	Rumble strips - edge or shoulder	1.97	Miles	$25493	$28325.56	HSIP (23 U.S.C. 148)	N/A	Minor Arterial	0		County Highway Agency	Systemic	Lane Departure	
8939-03-08	Roadway	Rumble strips - edge or shoulder	6.933	Miles	$60630	$67366.67	HSIP (23 U.S.C. 148)	N/A	Major Collector	0		County Highway Agency	Systemic	Lane Departure	
8949-04-70	Roadway	Rumble strips - edge or shoulder	8.99	Miles	$365915.84	$406573.15	HSIP (23 U.S.C. 148)	N/A	Major Collector	2,900		State Highway Agency	Spot	Lane Departure	
8949-05-73	Intersection traffic control	Modify control - two-way stop to all-way stop	0.189	Miles	$849854.17	$944282.41	HSIP (23 U.S.C. 148)	N/A	Major Collector	4,500		State Highway Agency	Spot	Lane Departure	
9566-02-01	Roadway	Rumble strips - edge or shoulder	5.05	Miles	$36638	$40708.89	HSIP (23 U.S.C. 148)	N/A	Local Road or Street	200		Indian Tribe Nation	Spot	Lane Departure	

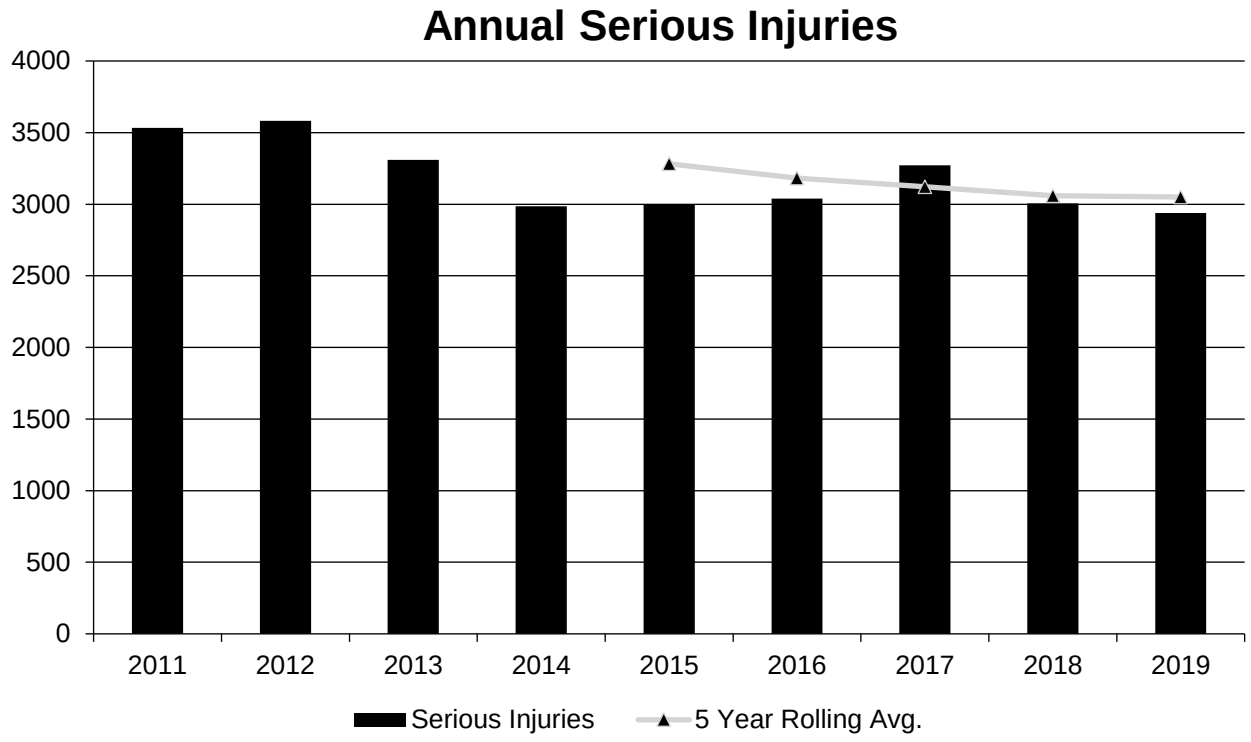
Safety Performance

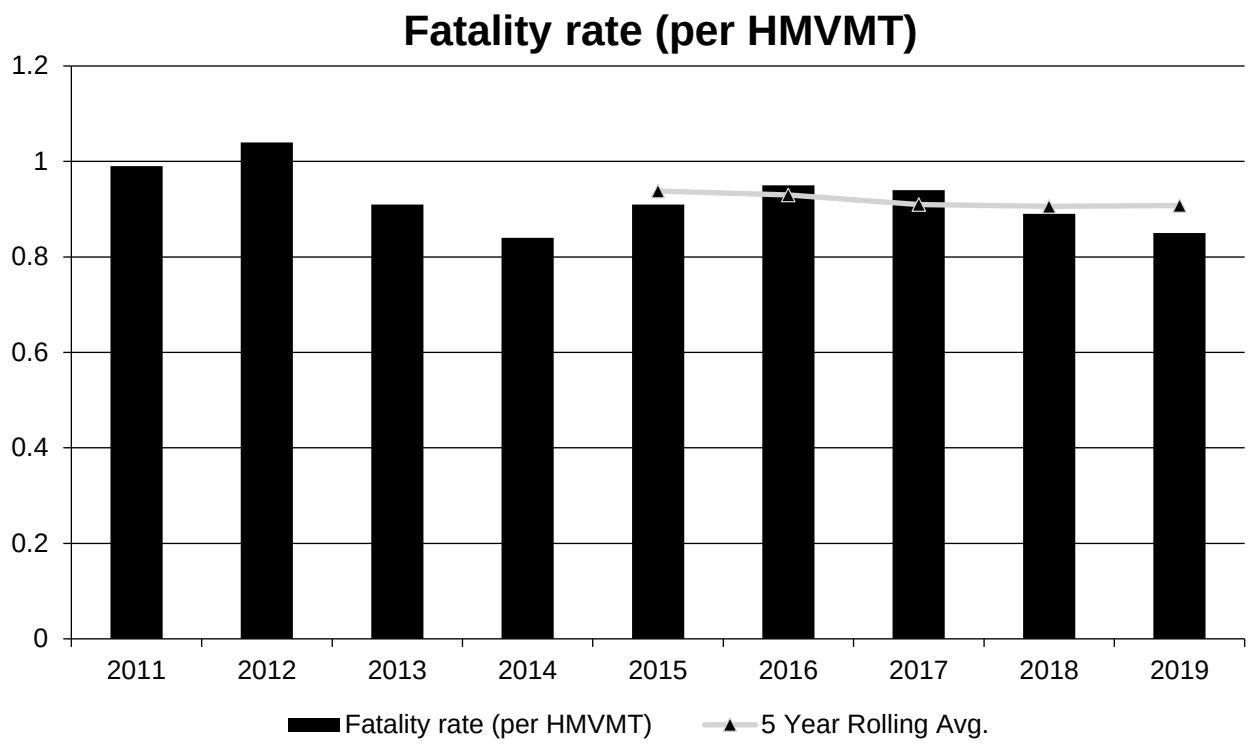
General Highway Safety Trends

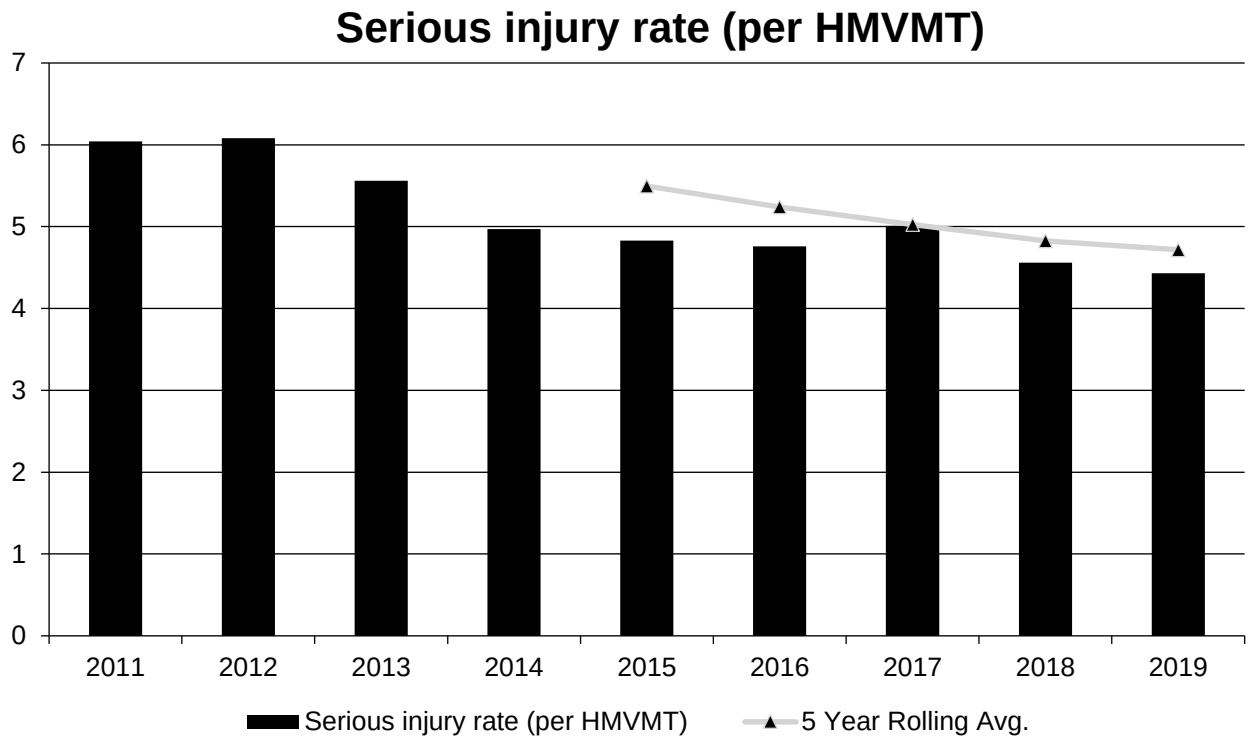
Present data showing the general highway safety trends in the State for the past five years.

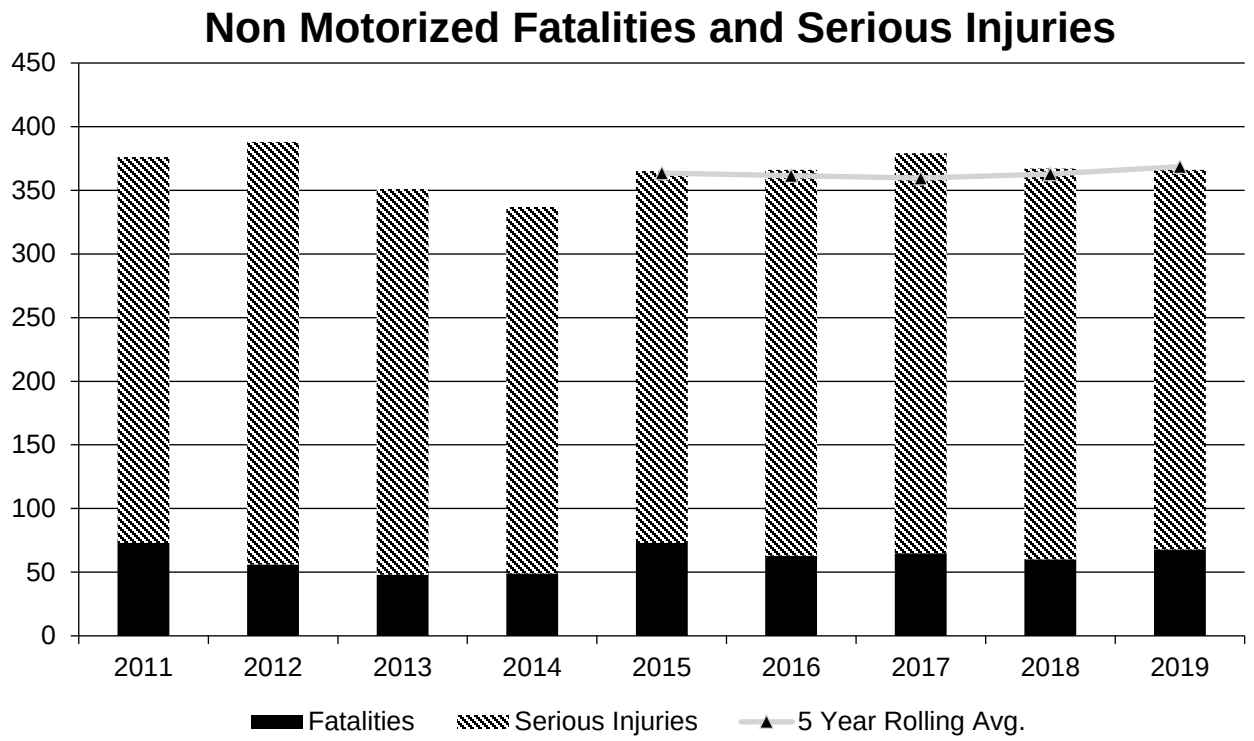
PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fatalities	582	615	543	506	566	607	613	589	565
Serious Injuries	3,534	3,582	3,309	2,986	2,999	3,039	3,271	3,005	2,938
Fatality rate (per HMVMT)	0.990	1.040	0.910	0.840	0.910	0.950	0.940	0.890	0.850
Serious injury rate (per HMVMT)	6.040	6.080	5.560	4.970	4.830	4.760	5.010	4.560	4.430
Number non-motorized fatalities	73	56	48	49	73	63	65	60	68
Number of non-motorized serious injuries	303	332	303	288	292	303	314	307	298


Annual Fatalities
700
600
500
400
300
200
100
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
4000
3500
3000
2500
2000
1500
1000
500
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.2
1
0.8
0.6
0.4
0.2
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
7
6
5
4
3
2
1
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



FARS data was not available for use before the HSIP annual report deadline. State fatality numbers were used as a baseline to estimate final FARS numbers. Historically, FARS numbers have been higher than the State fatality numbers. The average difference between FARS and State numbers was calculated using 2014-2018 data. This resulted in an average difference of 14 for total fatalities and 2 for non-motorized fatalities. For the 2019 data submitted in this report, the state number plus 14 was used to estimate the FARS fatalities (551 + 14 = 565).

Describe fatality data source.

State Motor Vehicle Crash Database

FARS data was not available for use before the HSIP annual report deadline. State fatality numbers were used as a baseline to estimate final FARS numbers. Historically, FARS numbers have been higher than the State fatality numbers. The average difference between FARS and State numbers was calculated using 2014-2018 data. This resulted in an average difference of 14 for total fatalities and 2 for non-motorized fatalities. For the 2019 data submitted in this report, the state number plus 14 was used to estimate the FARS fatalities (551 + 14 = 565).

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				

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) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other				
Rural Minor Arterial				
Rural Minor Collector				
Rural Major Collector				
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				
Urban City Street	102	785		
Rural City Street	8.6	74.4		
Rural Town Road	57.8	328		
Urban County Trunk Highway	3	7.4		
Rural County Trunk Highway	104.8	492.2		
Urban State Highway	48.8	343.8		
Rural State Highway	192.4	788.8		

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)
Urban Interstate Highway	14.4	100.4		
Rural Interstate Highway	28.2	130.4		

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	283.8	1,363.6		
County Highway Agency	119	583		
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 2021 Targets *

Number of Fatalities:576.0

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, which is the performance measure goal identified in the SHSP.

Number of Serious Injuries:2897.9

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

Number of serious injuries target is calculated as a 5% reduction from the most recent 5-year rolling average, which is the performance measure goal identified in the SHSP.

Fatality Rate:0.890

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, which is the performance measure goal identified in the SHSP.

Serious Injury Rate:4.482

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, which is the performance measure goal identified in the SHSP.

Total Number of Non-Motorized Fatalities and Serious Injuries:350.2

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., which is the performance measure goal identified in the SHSP.
1. FARS data was not available at the time of HSIP target submittal. State data was used to calculate the 2021 target for number of fatalities. The historical difference between state fatality data and FARS data was also factored in and accounted for.

Final data was not available at the time of HSP target submittal. WisDOT will amend the HSP performance target for number of fatalities to match the HSIP target.

2. Final data was not available at the time of HSP target submittal. WisDOT will amend the HSP performance target for number of serious injuries to match the HSIP target.

3. FARS data was not available at the time of HSIP target submittal. State data was used to calculate the 2021 target for number of fatalities. The historical difference between state fatality data and FARS data was also factored in and accounted for.

Final data was not available at the time of HSIP target submittal. WisDOT will amend the HSP performance target for fatality rate (per HMVMT) to match the HSIP target.

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.

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	555.7	588.0
Number of Serious Injuries	2967.6	3050.4
Fatality Rate	0.915	0.908
Serious Injury Rate	4.785	4.718
Non-Motorized Fatalities and Serious Injuries	342.0	368.6

Wisconsin has met or made significant progress towards three of its five 2019 Federal Safety Performance Targets based on data available at time of reporting.

Targets are anticipated to be met for Fatality Rate and Serious Injury Rate.

For Number of Serious Injuries, significant progress is anticipated since the actual outcomes are projected to be below the baseline.

Performance targets for Number of Fatalities and Non-Motorized Fatalities and Serious Injuries are not anticipated to be met. Wisconsin has seen a decrease in each of these categories the past three years. However, when looking at the five-year rolling average, the targets are not anticipated to be met. Wisconsin uses the previous five-year rolling average to calculate targets for the upcoming year. So, targets for 2019 were set in 2018 using data from 2013-2017. In 2014 Wisconsin was fortunate enough to see a historically low number of fatalities. The low number of fatalities in 2014 also lowered the five-year average for 2013-2017. The 2019 targets are being assessed against actual data from 2015-2019, which does not include the low year of 2014. This is likely one contributing factor towards not meeting these targets.

Wisconsin remains committed to addressing safety on all public roads through all of its transportation safety programs.

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	78	64	99	91	92	96	102
Number of Older Driver and Pedestrian Serious Injuries	245	231	198	227	249	262	290

Evaluation

Program Effectiveness

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.

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 has contracted with the University of Wisconsin - Traffic Operations and Safety Laboratory to complete project evaluations for the next reporting cycle.

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
- Increased focus on local road safety

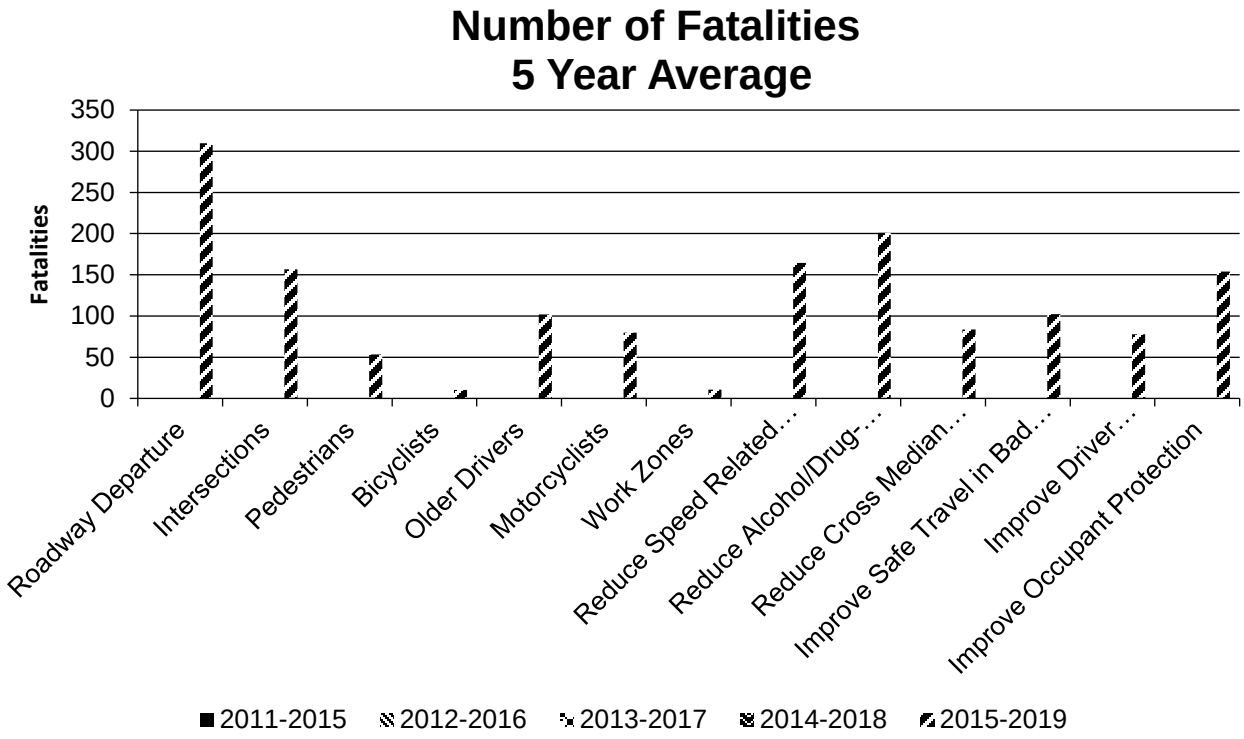
Effectiveness of Groupings or Similar Types of Improvements

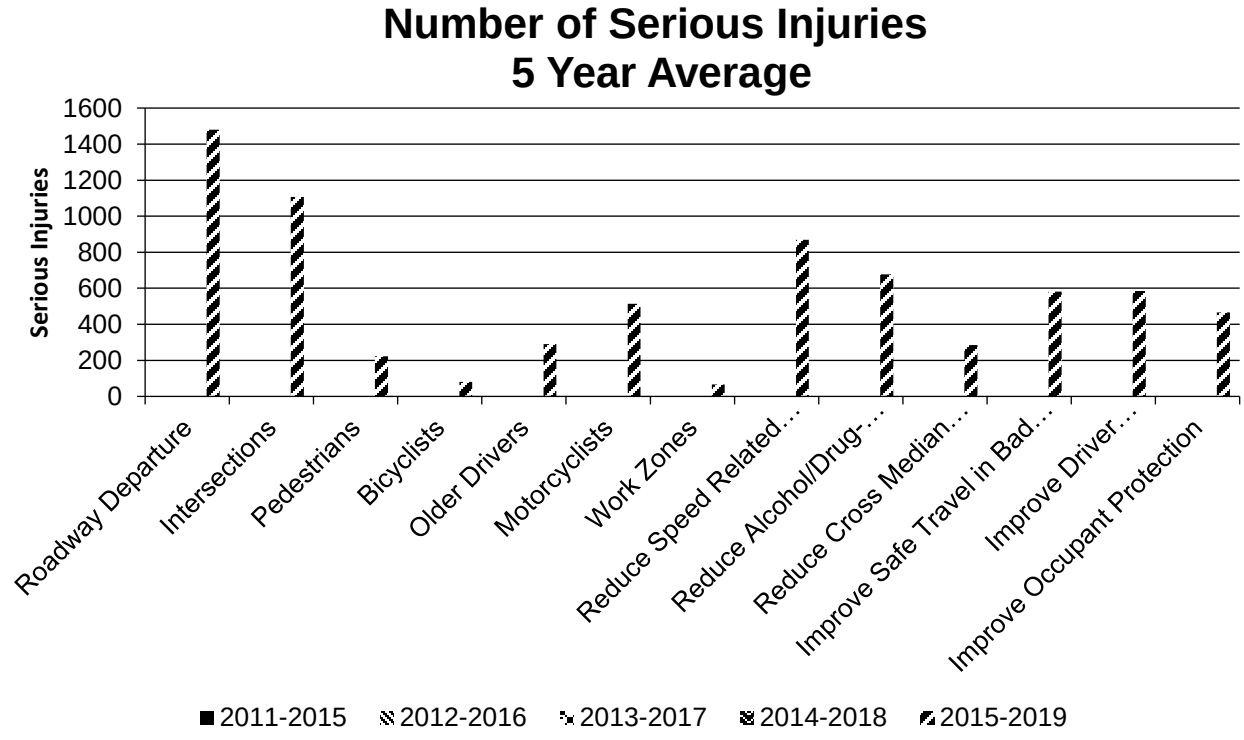
Present and describe trends in SHSP emphasis area performance measures.

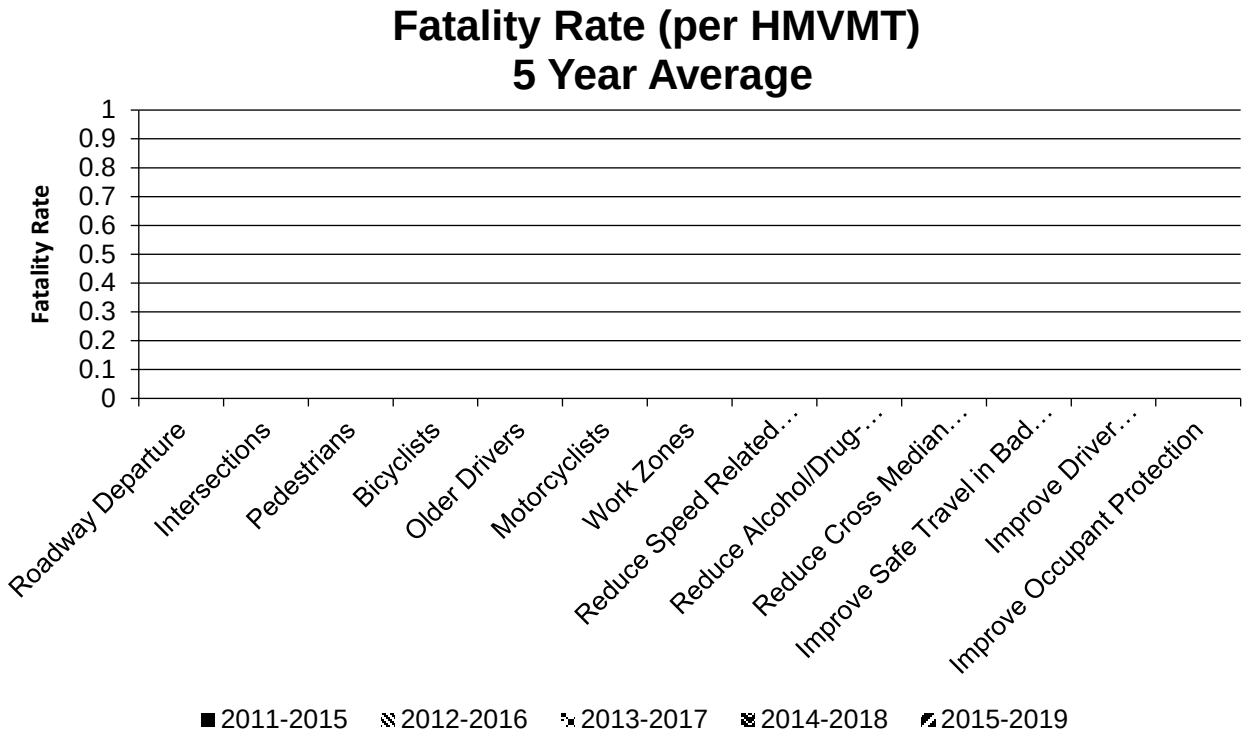
Year 2019

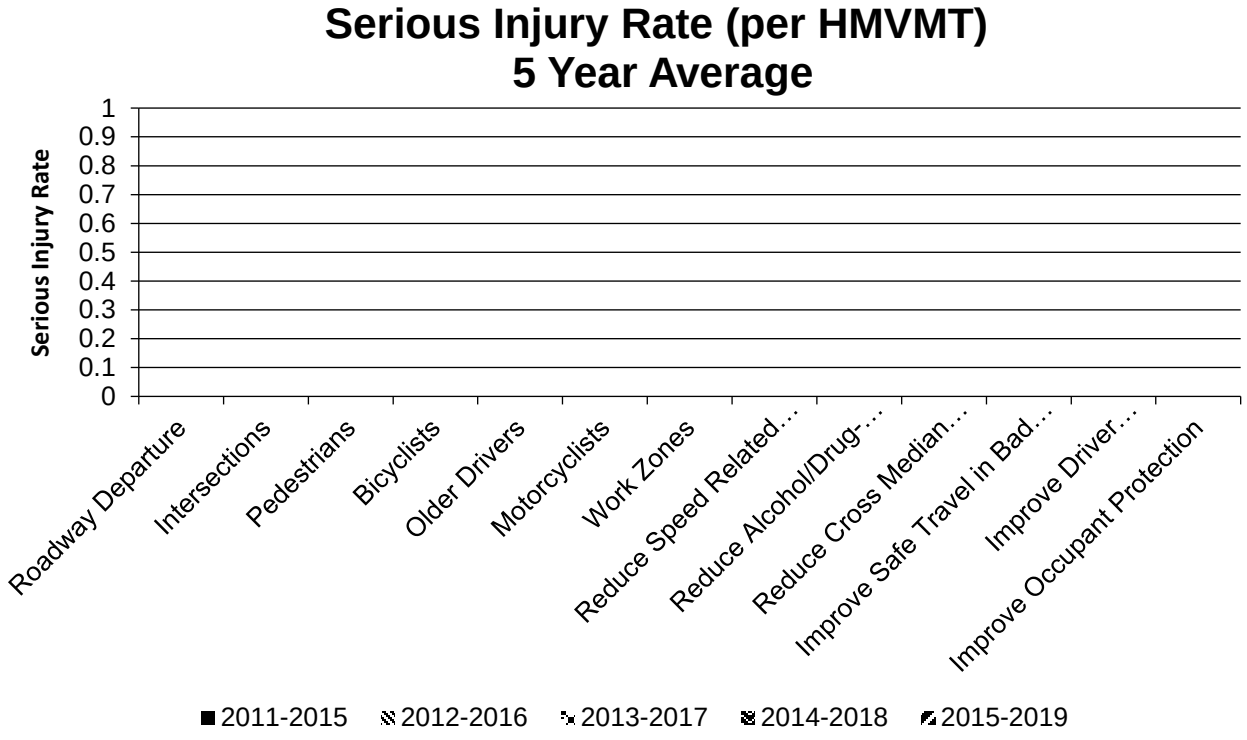
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Roadway Departure		309.6	1,479.2		
Intersections		156.6	1,107.4		
Pedestrians		53.2	222		
Bicyclists		10.2	80.8		
Older Drivers		102	290		
Motorcyclists		79.8	513		

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)
Work Zones		10.8	65.6		
Reduce Speed Related Crashes		164.6	868.6		
Reduce Alcohol/Drug-impaired Driving		200.8	676.4		
Reduce Cross Median Crashes		83.6	284		
Improve Safe Travel in Bad Weather		102.4	581.8		
Improve Driver Alertness/Reduce Driver Distraction		78	585		
Improve Occupant Protection		153.8	466.4		


Number of Fatalities
5 Year Average
Fatalities
350
300
250
200
150
100
50
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Reduce Speed Related…
Reduce Alcohol/Drug-…
Reduce Cross Median…
Improve Safe Travel in Bad…
Improve Driver…
Improve Occupant Protection
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Number of Serious Injuries
5 Year Average
Serious Injuries
1600
1400
1200
1000
800
600
400
200
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Reduce Speed Related…
Reduce Alcohol/Drug-…
Reduce Cross Median…
Improve Safe Travel in Bad…
Improve Driver…
Improve Occupant Protection
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Fatality Rate (per HMVMT)
5 Year Average
Fatality Rate
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Reduce Speed Related…
Reduce Alcohol/Drug-…
Reduce Cross Median…
Improve Safe Travel in Bad…
Improve Driver…
Improve Occupant Protection
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Serious Injury Rate (per HMVMT)
5 Year Average
Serious Injury Rate
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Reduce Speed Related…
Reduce Alcohol/Drug-…
Reduce Cross Median…
Improve Safe Travel in Bad…
Improve Driver…
Improve Occupant Protection
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.

Evaluation planned for 2021.

Compliance Assessment

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?

2021

WisDOT was in the process of updating the SHSP by scheduling the in-person peer exchange to establish top priority emphasis areas. Due to the COVID-19 pandemic, this process has been delayed and is expected to be completed in 2021.

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								

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
	Functional Class (19) [19]	100	100					100	100	100	100
	Median Type (54) [55]	100	7								
	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	65					100	1		
	AADT Year (80) [82]	100	65								
	Type of Governmental Ownership (4) [4]	100	65					100	100	100	100
INTERSECTION	Unique Junction Identifier (120) [110]			100							
	Location Identifier for Road 1 Crossing Point (122) [112]			100							
	Location Identifier for Road 2 Crossing Point (123) [113]			100							
	Intersection/Junction Geometry (126) [116]			100							
	Intersection/Junction Traffic Control (131) [131]			100							
	AADT for Each Intersecting Road (79) [81]			100							
	AADT Year (80) [82]			100							
	Unique Approach Identifier (139) [129]			100							
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					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
	Location Identifier for Roadway at Beginning of Ramp Terminal (197) [187]					100	100				
	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]										
	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**	**89.00**	**100.00**	**0.00**	**90.91**	**90.91**	**100.00**	**89.00**	**100.00**	**100.00**

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

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.

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.