



DELAWARE

HIGHWAY SAFETY IMPROVEMENT PROGRAM 2020 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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Disclaimer

Protection of Data from Discovery Admission into Evidence

23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.

23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.23 U.S.C. 409 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

Executive Summary

The Delaware Department of Transportation (DelDOT) has prepared this Annual Report for state fiscal year 2020 (July 1, 2019 through June 30, 2020) to demonstrate the success of their safety program. During the 2020 reporting period, DelDOT continued its successful core HSIP programs – Hazard Elimination Program (HEP), Highway Rail-Grade Crossing Program (HRGX), and Strategic Highway Safety Plan (SHSP) as well as its systemic safety program. During the 2020 reporting period, DelDOT installed new median barrier along SR 1 and I-95, continued Rectangular Rapid Flashing Beacon (RRFB) installations, completed a pedestrian safety audit along US 13 in Dover, began data analysis for a pedestrian safety audit in the City of Wilmington, completed the development of signing and pavement marking improvement recommendations for all freeway ramps in Delaware susceptible to wrong way driving, balanced safety and congestion at flashing red arrow (FRA) locations, and implemented previous years' HEP recommendations. DelDOT continued evaluating High-Friction Surface Treatment (HFST) applications to date for their durability, revised their standard HFST specifications, and is actively pursuing new contracts for additional applications.

DelDOT completed studies for the first two years of its HEP (2018 and 2019) in which sites were selected using a modified site selection methodology. Annually, ten HEP roadway segment sites are selected using the Critical Ratio methodology to identify high crash locations. The Critical Ratio method (also known as the Rate Quality Control Method) uses a statistical test to determine whether the crash rate at a particular location is significantly higher than a predetermined average crash rate (crash rates are based on three years of fatal and injury crash data) for locations of similar characteristics. Additionally, the Intersection HEP studies five signalized and five unsignalized intersections that are identified using a crash severity index weighting method to prioritize improvements at intersections with the highest potential for reduction in crashes. Collectively, DelDOT studies 20 locations annually through its HEP. Under the FY 2020 HRGX, two locations were identified with a benefit/cost ratio greater than 1.0 (and where improvements were not already proposed) and evaluations were begun. Additional information on DelDOT's HRGX can be found in the 2020 Railway-Highway Crossing Program Annual Report. Both programs continued to identify both low-cost remedial improvements and long-term safety improvement needs. Throughout the reporting period, DelDOT worked to refine the Department's rumble strip details and design guidance, adding in the use of sinusoidal shoulder and center line rumble strips (aka mumble strips). DelDOT is currently finalizing the design and will distribute department-wide for comment and acceptance for use on future projects. In summer 2020, DelDOT began efforts to reinstate a High Risk Rural Roads Program in support of Delaware's current and proposed Strategic Highway Safety Plan. In addition, DelDOT continued working on improvements and enhancements to its Crash Analysis Reporting System (CARS) and implementation of safety projects developed from the HSIP.

Each year DelDOT meets with the SHSP core committee to identify, review and evaluate the implementation of countermeasures to support the Emphasis Areas identified in the 2015 SHSP. Progress is tracked through implementation matrices by Emphasis Area. In the first half of 2020, DelDOT and its safety partners began efforts to update its SHSP, which is scheduled to be completed by the end of 2020.

The success of these programs is demonstrated by the annual decline in the combined number of fatalities and serious injuries (based on 5-year rolling averages) from 2015 to 2019, resulting in a 5-year decrease of 25 percent. From 2016 to 2018, annual fatalities averaged 117; however, reached 133 in 2015 and 2019. DelDOT led efforts, in conjunction with Delaware's Office of Highway Safety and Delaware State Police, to identify Delaware's 2021 safety performance measure targets, which are included in this report. Based on a preliminary assessment, Delaware has met or made significant progress toward meeting three of the five 2019 safety performance measure targets.

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.

DelDOT's Traffic Engineering Section leads the HSIP with support from both internal and external partners. The HSIP is comprised of several programs (and subprograms) that are designed to prioritize resources that target the most critical safety improvement opportunities as identified through data-driven approaches. The following programs are included in Delaware's HSIP:

- Hazard Elimination Program (HEP)
- Highway-Rail Grade Crossing (HRGX)
- Systemic Safety Improvement Programs
 - Longitudinal Rumble Strips
 - Freeway Median Barrier
 - High Friction Surface Treatment
 - Horizontal Curve Assessments
- Strategic Highway Safety Plan (SHSP)

For the HEP, twenty spot locations throughout the state are chosen for safety studies each year. Ten sites are selected using the Critical Ratio methodology to identify high crash locations and ten intersection sites (5 signalized; 5 unsignalized) are selected using a crash index methodology. For each site selected, DelDOT's Traffic Section reviews crash data, performs a field review, and identifies potential safety improvement alternatives. For candidate locations where improvements are in project development, design, or construction, a safety audit is performed to confirm that the proposed improvements will address the identified crash problem. The HEP committee, which includes representatives from DelDOT (Traffic, Planning, Project Development, and the Maintenance Districts), Delaware State Police, FHWA, MPOs, and the counties and municipalities, meets to reach a consensus on the recommended safety improvements. Traffic control device improvements (i.e., signing, striping, lighting, and traffic signal upgrades) are then designed by DelDOT's Traffic Section and implemented by DelDOT's maintenance forces and/or on-call contractors. Projects requiring detailed design, public involvement, or resulting in right-of-way or environmental impacts are forwarded to DelDOT's Project Development section for prioritization and inclusion in the Capital Transportation Program (CTP).

For the HRGX, DelDOT uses FRA's GradeDec.NET software to calculate benefit/cost ratios for all of Delaware's public highway-rail grade crossings. The benefit/cost ratios take into account the most recent five years of crash data, train speeds, the number of trains per day, and AADT, in addition to several other factors. The benefit/cost ratios at each crossing are then calculated for various upgrade alternatives. Then, all at-grade crossings statewide are ranked according to their benefit/cost ratios to identify candidate locations for safety upgrades.

2020 Delaware Highway Safety Improvement Program

Each of Delaware's systemic safety improvement programs use a data-driven approach based on a number of factors, including traffic volumes, roadway characteristics, functional class, and crash history to identify and prioritize locations for implementing proven countermeasures. Before/after crash analysis has indicated the success of the high-friction surface treatment program.

Delaware's SHSP is a statewide-coordinated safety plan that provides a comprehensive framework, identifies specific goals and objectives, and integrates the four E's - engineering, education, enforcement and emergency medical services (EMS). Delaware's SHSP core agencies include DelDOT, Office of Highway Safety (OHS), and Delaware State Police (DSP). Additionally, several other stakeholders (e.g., Federal Highway Administration, National Highway Traffic Safety Administration, Federal Motor Carrier Safety Administration, Delaware Department of Motor Vehicles, Delaware Department of Justice, Delaware Office of Emergency Medical Services, Delaware Transit Commission, WILMAPCO, Dover/Kent County MPO, City of Wilmington, Delaware T2/LTAP Center, and the general public) provide input and expertise towards the development of the SHSP. Together, the SHSP core agencies and stakeholders review fatal and serious injury crash data to identify emphasis areas to focus resources with the goal of reducing fatalities and serious injuries. DelDOT and its safety partners are actively working to update Delaware's SHSP by the end of 2020.

Where is HSIP staff located within the State DOT?

Engineering

HSIP staff are located in DelDOT's Division of Transportation Solutions – Traffic Engineering Section.

How are HSIP funds allocated in a State?

- Other-Central Office via Formula

DelDOT's Central Office distributes HSIP funds to cover general HSIP program activities, the installation of low-cost countermeasures (signing, marking, signals, etc.) identified through both the HSIP and projects designed through DelDOT's Project Development group.

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

All roadways throughout the state are eligible for safety funding; however, the calculations used to identify high crash locations for the Hazard Elimination Program (HEP) include state roadways in DelDOT's road inventory where traffic volumes are available. DelDOT maintains approximately 85 percent of all roads in Delaware. Based on a review of statewide crash data on all public roadways from 2015 through 2019, less than 0.5 percent of fatal and serious injuries were the result of crashes that occurred on roadways not maintained by DelDOT, indicating that crashes reported on these roadways would not likely meet the minimum crash criteria for the various HSIP elements.

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

- Design
- Districts/Regions
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

2020 Delaware Highway Safety Improvement Program

Describe coordination with internal partners.

Representatives from DelDOT's Traffic, Planning, Project Development, and Maintenance and Operations divisions participate in the HSIP as part of the HEP and SHSP committees.

Identify which external partners are involved with HSIP planning.

- FHWA
- Governors Highway Safety Office
- Law Enforcement Agency
- Local Government Agency
- Local Technical Assistance Program
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Other-National Highway Traffic Safety Administration
- Other-Delaware State Police
- Other-Department of Justice
- Other-Delaware Office of Emergency Medical Services
- Other-Federal Motor Carrier Safety Administration

Describe coordination with external partners.

Representatives from DelDOT's external partners participate in the HSIP via the HEP and/or SHSP committees. Together, DelDOT and these agencies work together to focus resources with the goal of reducing fatalities and serious injuries on Delaware's transportation system.

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

During FY 2020 (July 1, 2019 - June 30, 2020), components of Delaware's HSIP included the Strategic Highway Safety Plan (SHSP), the Hazard Elimination Program (HEP), and the Highway-Rail Grade Crossing Safety Program (HRGX) as well as its systemic safety program. During the 2020 reporting period, DelDOT installed new median barrier along SR 1 and I-95, continued Rectangular Rapid Flashing Beacon (RRFB) installations, completed a pedestrian safety audit along US 13 in Dover, began data analysis for a pedestrian safety audit in the City of Wilmington, completed the development of signing and pavement marking improvement recommendations for all freeway ramps in Delaware, balanced safety and congestion at its flashing red arrow (FRA) locations, and implemented previous years' HEP recommendations. DelDOT continued evaluating High-Friction Surface Treatment (HFST) applications to date for their durability, revised their standard HFST specifications, and is actively pursuing new contracts for additional applications. Throughout the reporting period, DelDOT worked to refine the Department's rumble strip details and design guidance, adding in the use of sinusoidal shoulder and center line rumble strips (aka mumble strips). DelDOT is currently finalizing the design and will distribute department-wide for comment and acceptance for use on future projects. DelDOT continued enhancements to the Crash Analysis and Reporting System (CARS) and initiated new pedestrian safety studies along corridors exhibiting high pedestrian crash histories. In summer 2020, DelDOT began efforts to reinstate a High Risk Rural Roads Program to support the current and upcoming SHSP.

Program Methodology

Select the programs that are administered under the HSIP.

- Horizontal Curve
- Intersection

2020 Delaware Highway Safety Improvement Program

- Median Barrier
- Pedestrian Safety
- Segments
- Other-Longitudinal Rumble Strips
- Other-High Friction Surface Treatment

Program: Horizontal Curve

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?

Other-Competes with HSIP projects

What data types were used in the program methodology?

Crashes

Exposure

Roadway

- Horizontal curvature

What project identification methodology was used for this program?

- Other-All horizontal curves to be evaluated.
- Probability of specific crash types

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

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Prioritized based on functional classification

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:1

Program: Intersection

Date of Program Methodology:12/17/2018

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

Exposure

Roadway

- All crashes

What project identification methodology was used for this program?

- Relative severity index

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

Yes

Are local road projects identified using the same methodology as state roads?

Yes

How are projects under this program advanced for implementation?

- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:1

DelDOT's Intersection Hazard Elimination Program (Intersection HEP) considers both signalized and unsignalized intersections. Program methodology details are attached.

Program: Median Barrier

Date of Program Methodology:7/1/2018

What is the justification for this program?

2020 Delaware Highway Safety Improvement Program

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Other-Competes with HSIP projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
<ul style="list-style-type: none"> • Other-All roadway departure crashes, head-on crashes, and cross-median crashes 	<ul style="list-style-type: none"> • Volume • Other-Roadway Miles 	<ul style="list-style-type: none"> • Median width • Horizontal curvature • Functional classification • Roadside features

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Relative severity index

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

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Based on prioritization and funding availability

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).

Relative Weight in Scoring

Available funding:50

Ranking based on net benefit:50

Total Relative Weight:100

Program: Pedestrian Safety

Date of Program Methodology:7/1/2018

What is the justification for this program?

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- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- Other-All pedestrian crashes

Exposure

Roadway

- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Probability of specific crash types

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

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Available funding:34

Ranking based on net benefit:33

Cost Effectiveness:33

Total Relative Weight:100

Program: Segments

Date of Program Methodology:12/17/2018

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

2020 Delaware Highway Safety Improvement Program

Competes with all projects

What data types were used in the program methodology?

Crashes

- Other-Fatal and Injury Crashes Only

Exposure

- Volume
- Other-Roadway Miles

Roadway

- Other-Roadway Type

What project identification methodology was used for this program?

- Critical rate

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

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Ranking based on B/C:25

Available funding:25

Ranking based on net benefit:25

Cost Effectiveness:25

Total Relative Weight:100

Program methodology details are attached.

Program: Other-Longitudinal Rumble Strips

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?

Other-Competes with HSIP projects

What data types were used in the program methodology?

Crashes

- Other-All roadway departure crashes

Exposure

- Volume
- Other-Roadway Miles

Roadway

- Horizontal curvature
- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Probability of specific crash types

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

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Based on prioritization and funding availability

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2

Ranking based on net benefit:1

Program: Other-High Friction Surface Treatment

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

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- Other-All wet weather roadway departure crashes
- Volume
- Other-Roadway Miles

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?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Based on prioritization and funding availability

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Ranking based on net benefit:1

What percentage of HSIP funds address systemic improvements?

20

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

- Cable Median Barriers
- High friction surface treatment
- Horizontal curve signs
- Install/Improve Signing
- Upgrade Guard Rails

What process is used to identify potential countermeasures?

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

2020 Delaware Highway Safety Improvement Program

- Stakeholder input

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

DelDOT has accepted the SPaT Challenge and we expect to have our first systems operational shortly. As vehicle manufacturers increase deployment of connected vehicles, the implementation of red light violation warnings and other associated applications at traffic signals via DSRC will be supportive of safety initiatives related to the "Intersections" emphasis area of the SHSP. Moving ahead, we expect to have a higher level of coordination between ITS/CAV initiatives and HSIP/SHSP initiatives than we have had in the past.

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.

DelDOT uses the HSM to compare alternatives and countermeasures under consideration for its HSIP.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$9,250,000	\$981,948	10.62%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$900,000	\$900,000	100%
Penalty Funds (23 U.S.C. 154)	\$2,408,900	\$2,308,837	95.85%
Penalty Funds (23 U.S.C. 164)	\$0	\$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	\$704,600	\$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	\$7,600,000	\$109,105	1.44%
State and Local Funds	\$0	\$0	0%
Totals	\$20,863,500	\$4,299,890	20.61%

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

\$0

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

\$0

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

\$113,961

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

\$113,961

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

\$0

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

0%

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

The Department struggled with awarding an open-ended High Friction Surface Treatment contract. The contract was advertised twice; however, both times bids were approximately 100% over the engineer's estimate. This, coupled with DelDOT's intent to utilize HRRR special rule funds which had to be obligated by the end of FFY20 ultimately did not permit us to move forward with using these funds for this work.

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
2020 SHSP	Non-infrastructure	Transportation safety planning	1	Statewide	\$269192.91	\$269192.91	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency		All	
Flashing Red Arrow Safety Studies	Non-infrastructure	Transportation safety planning	1	Statewide	\$171628.47	\$171628.47	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Intersections	
2020 HEP Studies	Non-infrastructure	Transportation safety planning	20	Locations	\$795243.65	\$795243.65	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	All	
SR54 Corridor Study	Non-infrastructure	Road safety audits	1	Corridor	\$47938.82	\$47938.82	HSIP (23 U.S.C. 148)	Urban	Major Collector	7,800	40	State Highway Agency	Spot	Pedestrians	
Site N, CoW sites	Intersection traffic control	Modify traffic signal timing - left-turn phasing (permissive to protected/permissive)	1	Intersections	\$11265.25	\$11265.25	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	14,500	25	State Highway Agency	Spot	Intersections	
2016 HEP Pavement Markings	Roadway delineation	Roadway delineation - other	1	Statewide	\$9017.25	\$9017.25	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency		Multiple	
Brackenville & Mill Creek Signal Design	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$202799	\$202799	HSIP (23 U.S.C. 148)	Urban	Major Collector	11,150	35	State Highway Agency	Spot	Intersections	
Philly Pike & I-495	Intersection geometry	Auxiliary lanes - modify turn lane storage	1	Intersections	\$207699.5	\$207699.5	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	22,400	35	State Highway Agency	Spot	Intersections	
2017 HEP Pavement Markings	Roadway delineation	Roadway delineation - other	1	Statewide	\$133595.76	\$133595.76	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency		Multiple	
N. Adams City of Wilmington	Intersection traffic control	Modify traffic signal - modernization/replacement	3	Intersections	\$114897.7	\$114897.7	Penalty Funds (23 U.S.C. 154)	Urban	Minor Arterial	4,500	35	State Highway Agency	Spot	Intersections	
SR 48 & N. Washington St	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	1	Intersections	\$6158.77	\$6158.77	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	6,000	25	State Highway Agency	Spot	Intersections	
US13 and SR24 Lighting	Lighting	Intersection lighting	1	Intersections	\$235837	\$235837	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	22,300	50	State Highway Agency	Spot	Intersections	

2020 Delaware Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Boxwood & Birmingham	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersections	\$15195	\$15195	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	13,700	35	State Highway Agency	Spot	Pedestrians	
SR30 & Sand Hill Road	Intersection traffic control	Modify control - two-way stop to all-way stop	1	Intersections	\$3079.7	\$3079.7	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,925	50	State Highway Agency	Spot	Intersections	
North Broad & Frogtown	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	1	Intersections	\$4037	\$4037	Penalty Funds (23 U.S.C. 154)	Urban	Major Collector	26,600	35	State Highway Agency	Spot	Intersections	
SR1 & Cave Neck	Access management	Median crossover - unspecified	1	Intersections	\$9017.25	\$9017.25	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	35,200	50	State Highway Agency	Spot	Intersections	
Boxwood & Jackson	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersections	\$12051	\$12051	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	13,700	35	State Highway Agency	Spot	Pedestrians	
US13 & Webbs Lane	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	1	Intersections	\$4037	\$4037	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	38,700	50	State Highway Agency	Spot	Intersections	
High Friction	Roadway	Pavement surface - high friction surface	1	Statewide	\$1656.4	\$1656.4	HRRR Special Rule (23 U.S.C. 148(g)(1))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Curved guardrail inventory - consultant tasks	Roadside	Barrier- metal	1	Statewide	\$600.74	\$600.74	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Roadway Departure	
Philly Pike Lighting Design	Lighting	Lighting - other	1	Corridor	\$18218.13	\$18218.13	Penalty Funds (23 U.S.C. 154)	Rural	Minor Arterial	14,800	40	State Highway Agency	Spot	Pedestrians	
US13 Dover Pedestrian Study	Non-infrastructure	Road safety audits	1	Corridor	\$44262.38	\$44262.38	Penalty Funds (23 U.S.C. 154)	Urban	Minor Arterial	60,000	40	State Highway Agency	Spot	Pedestrians	
Bethany RRFB	Pedestrians and bicyclists	Pedestrian signal - Pedestrian Hybrid Beacon	8	Locations	\$95999.7	\$95999.7	Penalty Funds (23 U.S.C. 154)	Urban	Principal Arterial-Other	18,100	35	State Highway Agency	Spot	Pedestrians	
Mini Roundabout - Glasgow Ave	Non-infrastructure	Road safety audits	1	Intersections	\$12936.03	\$12936.03	Penalty Funds (23 U.S.C. 154)	Urban	Major Collector	15,000	45	State Highway Agency	Spot	Intersections	
Roundabout Support Services	Intersection traffic control	Intersection traffic control - other	1	Statewide	\$21847.23	\$21847.23	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Intersections	

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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
Philly Pike road Diet	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1	Corridor	\$27329.46	\$27329.46	Penalty Funds (23 U.S.C. 154)	Rural	Minor Arterial	14,800	40	State Highway Agency	Spot	Multiple	
High Friction Support	Roadway	Pavement surface - high friction surface	1	Statewide	\$21158.94	\$21158.94	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Signalized Median Crossover Documents - Construction Support	Intersection traffic control	Intersection traffic control - other	1	Statewide	\$3712.83	\$3712.83	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Intersections	
US9 and Sussex Central	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	1	Intersections	\$22582.3	\$22582.3	Penalty Funds (23 U.S.C. 154)	Urban	Minor Arterial	13,300	25	State Highway Agency	Spot	Intersections	
I-95 and SR1 Freeway Median Barrier Design	Roadside	Barrier - cable	25.3	Miles	\$46454.74	\$46454.74	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	

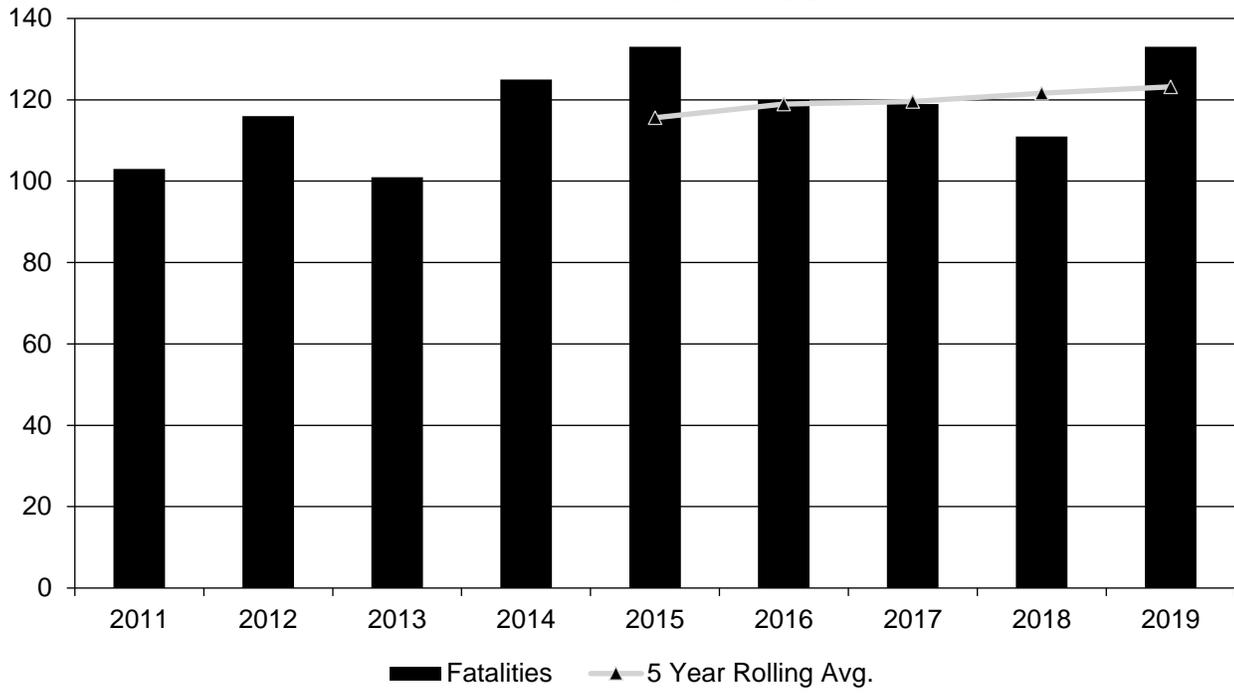
Safety Performance

General Highway Safety Trends

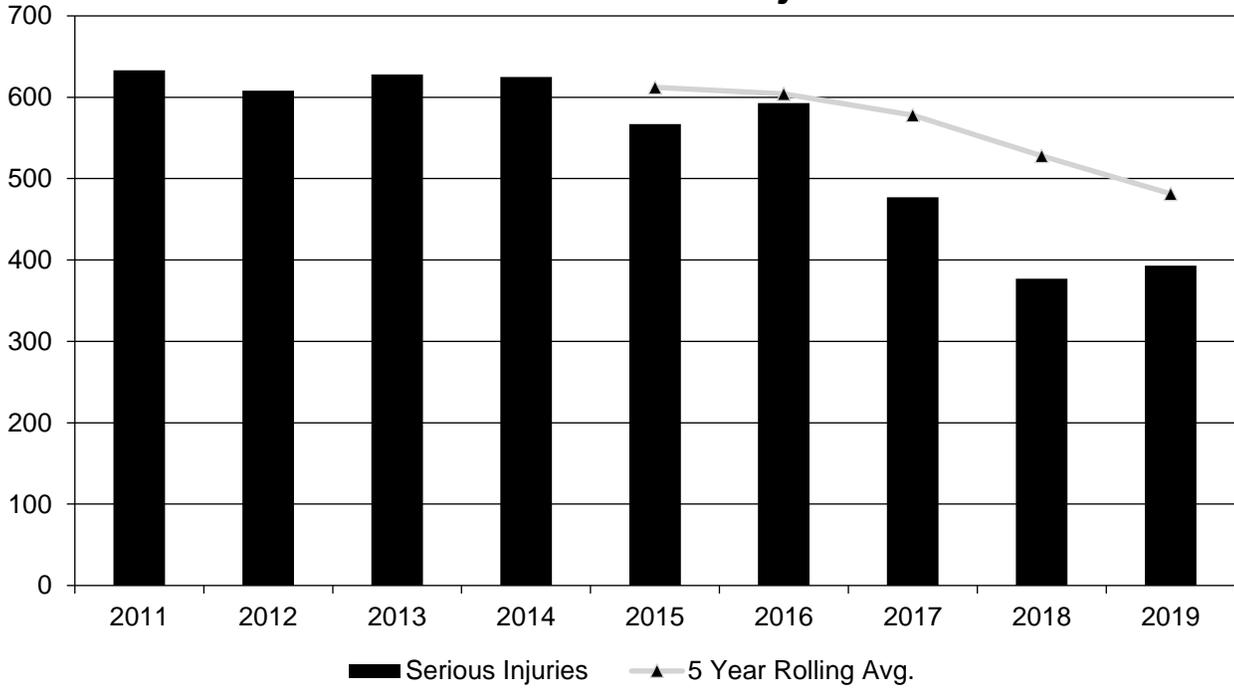
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fatalities	103	116	101	125	133	120	119	111	133
Serious Injuries	633	608	628	625	567	593	477	377	393
Fatality rate (per HMVMT)	1.140	1.270	1.080	1.310	1.340	1.180	1.230	1.180	1.400
Serious injury rate (per HMVMT)	7.010	6.650	6.740	6.530	5.720	5.840	4.930	4.020	4.140
Number non-motorized fatalities	19	34	28	30	39	30	38	29	39
Number of non-motorized serious injuries	86	75	82	72	61	64	41	63	66

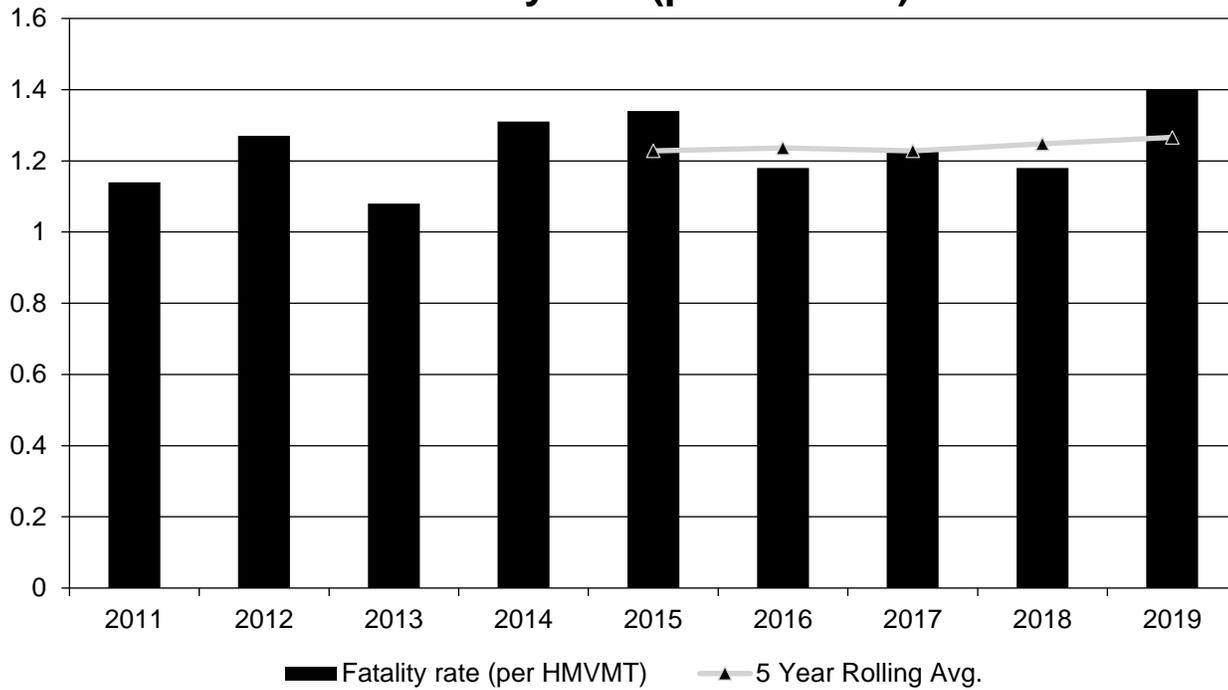
Annual Fatalities



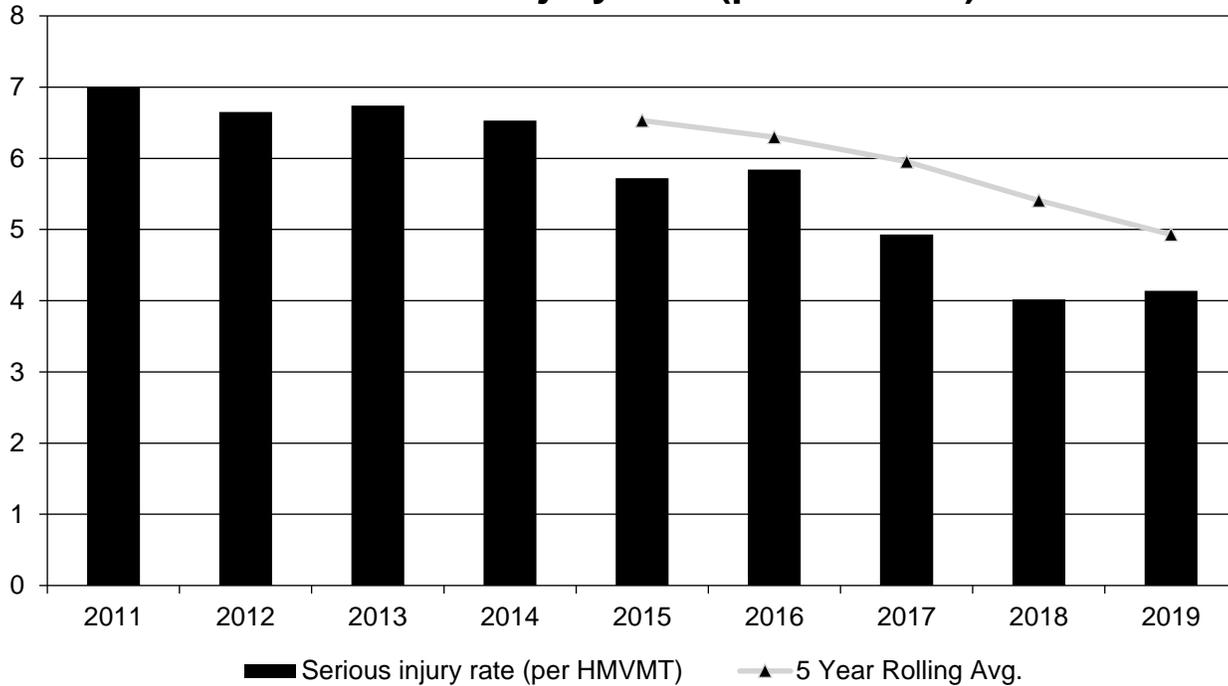
Annual Serious Injuries



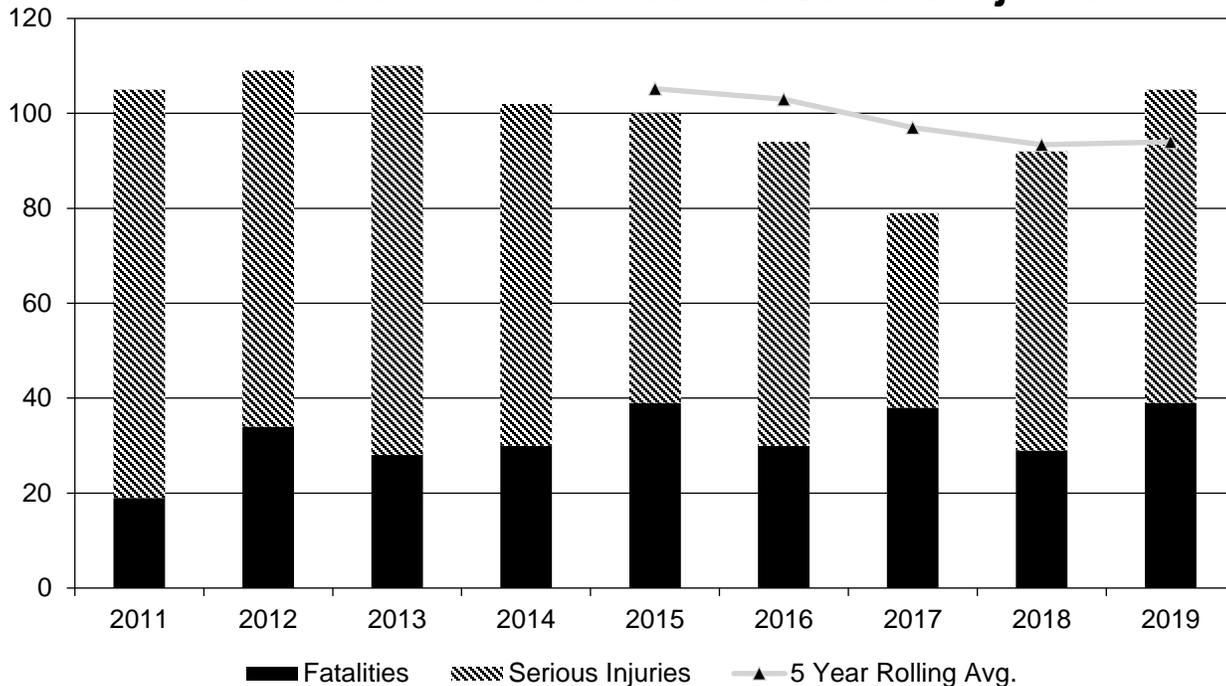
Fatality rate (per HMVMT)



Serious injury rate (per HMVMT)



Non Motorized Fatalities and Serious Injuries



At the time of reporting, annual vehicle miles traveled (VMT) data is unavailable for calendar year 2019. As such, 2019 fatality and serious injury rates were calculated based on projected 2019 VMT values. 2019 VMT was projected from known 2018 VMT using FHWA's VMT forecasting growth rates (May 2019 release), which indicates a 1.1% annual growth rate for the 20-year period from 2017-2037 for "baseline economic growth". For the purposes of this reporting, state data was used for both the number of fatalities and serious injuries.

Describe fatality data source.

State Motor Vehicle Crash Database

For the purposes of reporting the most recent statewide crash data trends, crash data from Delaware's Crash Analysis Reporting System (CARS) was used. It should be noted that safety performance measure targets (and the trend line analyses to derive the targets) relied on FARS data as required by the SPM Final Rule.

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	0	1		
Rural Principal Arterial (RPA) - Other	2.2	5.8		1.3

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Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	5.8	25.2	0.75	3.21
Rural Minor Arterial	6.2	16	2.14	5.75
Rural Minor Collector	6.8	14	3.97	8.17
Rural Major Collector	14.2	39	2.44	6.71
Rural Local Road or Street	11.4	33.6	2.67	7.84
Urban Principal Arterial (UPA) - Interstate	7.8	25.8	0.53	1.78
Urban Principal Arterial (UPA) - Other Freeways and Expressways	3.8	10	0.55	1.44
Urban Principal Arterial (UPA) - Other	30.6	118	1.35	5.25
Urban Minor Arterial	15	83.8	1.32	7.46
Urban Minor Collector	1	5		7.81
Urban Major Collector	10.4	56	1.24	6.63
Urban Local Road or Street	8	50	0.8	5.06

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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	0			
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				

At the time of reporting, annual vehicle miles traveled data is unavailable for calendar year 2019. As such, 2019 crash rates were calculated based on projected 2019 VMT values. 2019 VMT was projected from known 2018 VMT using FHWA's VMT forecasting growth rates (May 2019 release), which indicates a 1.1% annual growth rate for the 20-year period from 2017-2037 for "baseline economic growth". Data by roadway ownership is not available at this time.

Provide additional discussion related to general highway safety trends.

The number of fatalities (based on 5-year rolling averages) per year remained relatively steady from 2015 to 2019, ranging from 117.4 to 120.8. During the same period, the number of serious injuries (based on 5-year

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rolling averages) per year have steadily declined from 612 in 2015 to 475 in 2019, a reduction of over 20 percent. Statewide vehicle miles traveled (VMT) in 2017 to 2019 were approximately five (5) percent lower than 2015 and 2016. Fatalities per VMT (based on 5-year rolling averages) decreased in 2016, 2017, and 2018 compared to 2015; however, returned to 2015 levels in 2019. Serious injuries per VMT (based on 5-year rolling averages) have decreased annually from 2015 to 2019. In 2019, serious injuries per VMT was approximately 25 percent lower than in 2015. The raw number of fatalities and serious injuries per year for the State of Delaware are relatively low; therefore, there is greater potential for larger fluctuations in fatality rates and serious injury rates as compared to other larger states and national rates, even though the raw number of fatalities and serious injuries may only differ by a few on a year-to-year basis.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2021 Targets *

Number of Fatalities:112.4

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

During 2015, DeIDOT, OHS, DSP, and other statewide safety partners collaborated in the development of the 2015 Delaware Strategic Highway Safety Plan: Toward Zero Deaths, which provides a framework to reduce fatalities and serious injuries resulting from crashes on Delaware's roadways. The 2015 SHSP established a multi-year overall goal which includes annual target reductions. In 2017, DeIDOT and OHS performed extensive data and trendline analyses to identify potential methodologies for establishing Delaware's 2018 SPM targets and met with FHWA and NHTSA representatives to review the data and establish the 2018 SPM targets. At that time, DeIDOT and OHS agreed to use the annual target reductions included in Delaware's 2015 SHSP overall goal as the basis for developing Delaware's 2018 SPM targets. In 2018 and 2019, DeIDOT, OHS, and DSP reconvened to establish Delaware's SPM targets and agreed to follow the 2018 SPM target setting methodology for the 2019 and 2020 SPM targets. In 2020, the three agencies coordinated to set 2021 SPM targets and agreed to follow the established target setting methodology for the serious injury targets (SPM 3 and 4) while maintaining the targets established in 2020 for the fatality and non-motorized crash targets (SPM 1, 2, and 5) for 2021. Since SPM target setting began in 2017, CY2019 marked the first year that the number of fatalities increased compared to the prior year – a trend inconsistent with the State's goals. Maintaining the prior year's targets for SPM 1, 2 and 5 ensures the establishment of aggressive targets while not establishing unachievable targets.

Number of Serious Injuries:379.0

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

See response for number of fatalities.

Fatality Rate:1.134

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

See response for number of fatalities.

Serious Injury Rate:3.962

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

See response for number of fatalities.

Total Number of Non-Motorized Fatalities and Serious Injuries:89.0

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

See response for number of fatalities.

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

After coordinating with the Delaware Office of Highway Safety (OHS) and Delaware State Police (DSP) in Spring 2020, DelDOT distributed the draft of agreed-upon safety performance measures to statewide stakeholders for their comment via email. Members of Delaware’s SHSP committee accounted for a majority of the stakeholders included in the distribution of the draft targets. This includes, but is not limited to, the representatives from Delaware’s MPOs, Delaware State Police, and Delaware’s Office of Emergency Medical Services. DelDOT did not receive any objections to the draft safety performance measure targets.

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	119.0	123.2
Number of Serious Injuries	507.4	481.4
Fatality Rate	1.190	1.266
Serious Injury Rate	5.078	4.930
Non-Motorized Fatalities and Serious Injuries	85.0	94.0

2019 SPM targets were established during 2018 to consider safety performance through the end of calendar year 2019. Per FHWA guidelines, fatality data from the Fatality Analysis Reporting System (FARS) and traffic volume data from the Highway Performance Monitoring System (HPMS) will be used to officially assess whether a state met or made significant progress towards meeting its annual SPM targets. It should be noted that the actual performance reported with this question is automatically generated from data documented previously in this report. As previously noted, crash data from Delaware’s Crash Analysis Reporting System (CARS) was used instead of FARS data. These data sources are close but not always identical; therefore, the discussion below reflects the use of FARS data as required by the SPM Final Rule with the exception of CY 2019 since FARS data is not yet available. Similarly, 2019 HPMS data is not yet available, so projected 2019 VMT data was utilized. For these reasons, officially determining whether Delaware met or made significant progress towards meeting its 2019 SPM targets is not possible at this time; however, a preliminary assessment was completed using the best available data at the time of reporting. Based on this preliminary assessment (described below), Delaware has met or made significant progress toward meeting three of the five 2019 Safety Performance Measure Targets.

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1. Number of Fatalities – Delaware’s projected 2015-2019 5-year rolling average value is 122.6 or 3.6 fatalities greater than the 119.0 target. Fatalities decreased annually in 2016 to 2018 compared to 2015 until 2019, when fatalities increased to 133, matching the 2015 performance.
2. Number of Serious Injuries – Delaware’s projected 2015-2019 5-year rolling average value is 481.4 or 26.0 serious injuries lower than the 507.4 target; therefore, this SPM is met. At the end of September 2017, Delaware implemented a change to its serious injury definition in accordance with a federal mandate which could be contributing to this decline. DelDOT and its safety stakeholders have discussed this at length and are continuing to do so during development of its 2020 SHSP.
3. Rate of Fatalities – Delaware’s projected 2015-2019 5-year rolling average value is 1.242, which is slightly higher than the 1.190 target and 1.196 baseline. Refer to SPM #1 (number of fatalities) for additional details.
4. Rate of Serious Injuries – Delaware’s projected 2015-2019 5-year rolling average value is 4.930 or 0.148 less than the 5.078 target; therefore, this SPM is met. Refer to SPM #3 (number of serious injuries) for additional details.
5. Combined Number of Non-Motorized Fatalities and Serious Injuries – Delaware’s projected 2015-2019 5-year rolling average value is 94.2, which is higher than the 85.0 target and lower than the 96.4 baseline. By being lower than the baseline, this SPM is met.

Applicability of Special Rules

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

Yes

The HRRR Special Rule applies for FY2020. Under the rule, Delaware must obligate \$900,000 in FY2020 towards HRRR safety projects. The Department intended on using these funds to award an open-end High Friction Surface Treatment contract; however, struggled with awarding the contract. The contract was advertised twice; however, both times bids were approximately 100% over the engineer's estimate. This, coupled with DelDOT's intent to utilize HRRR special rule funds which had to be obligated by the end of FFY20 ultimately did not permit us to move forward with using these funds for this work. As such, the Department has obligated these funds to implement rural safety countermeasures as part of the 2019's Hazard Elimination Program, as well as reinstate a High Risk Rural Roads Program for the next several years. The program is under development at the time of reporting; therefore, program methodology and evaluation details are unavailable at this time.

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	14	20	14	17	19	16	27
Number of Older Driver and Pedestrian Serious Injuries	55	42	42	42	46	27	31

As required, the number of fatalities is based on FARS data and the number of serious injuries is based on State data. At the time of reporting, 2019 FARS data is unavailable; therefore, State data is reported for CY 2019.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Benefit/Cost Ratio
- Change in fatalities and serious injuries
- Economic Effectiveness (cost per crash reduced)

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

See response to Question 33 for discussion of the change in fatalities and serious injuries.

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

- # miles improved by HSIP
- # RSAs completed
- More systemic programs

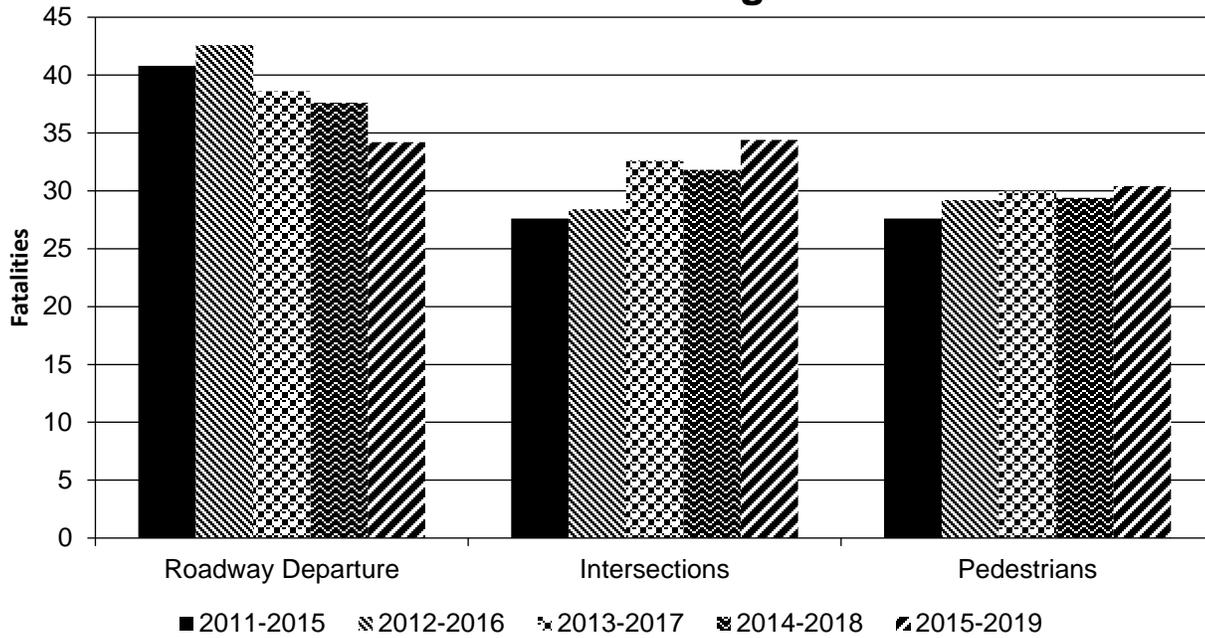
Effectiveness of Groupings or Similar Types of Improvements

Present and describe trends in SHSP emphasis area performance measures.

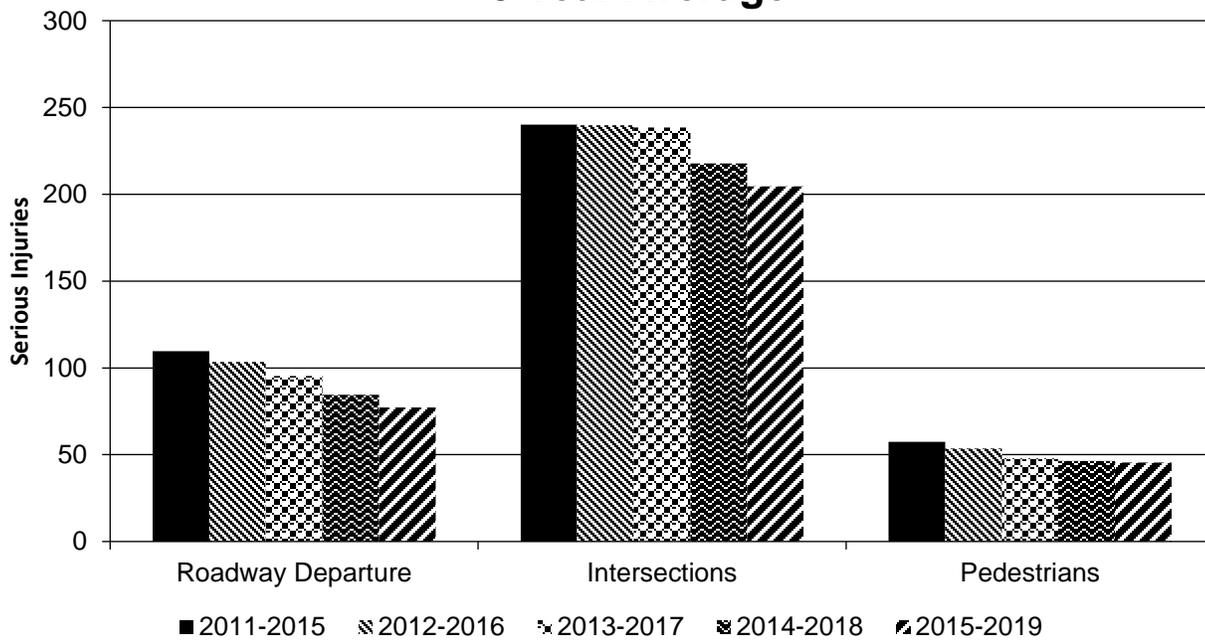
Year 2019

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		34.2	77.2	0.34	0.76
Intersections		34.4	204.6	0.34	2.01
Pedestrians		30.4	45.4	0.3	0.44

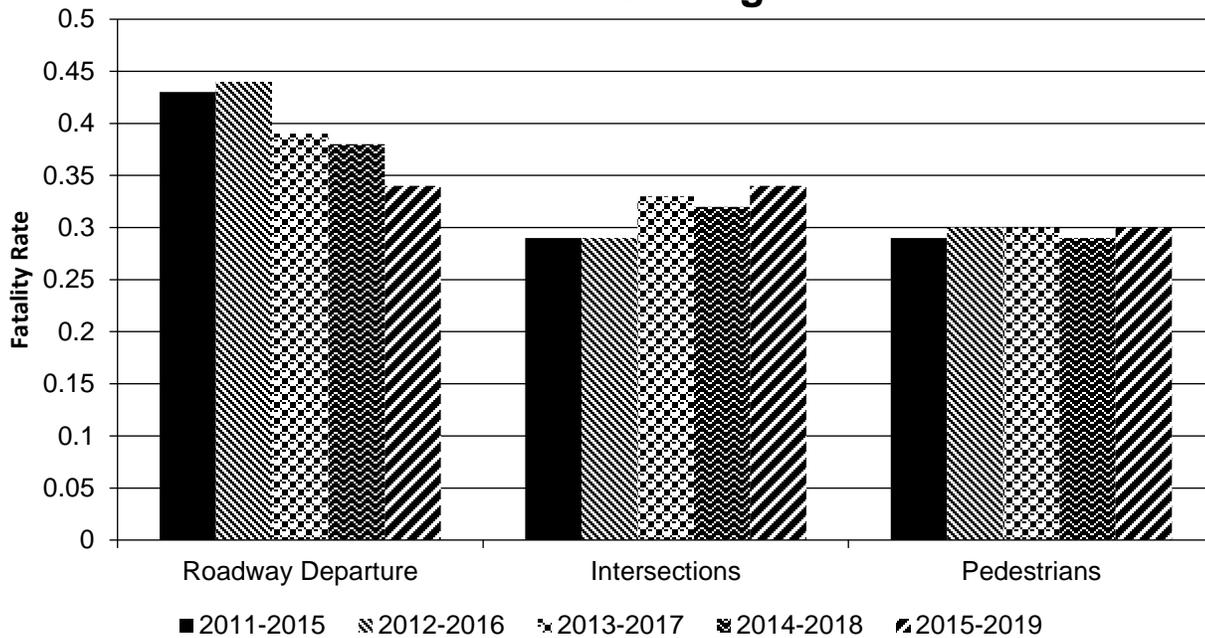
Number of Fatalities 5 Year Average



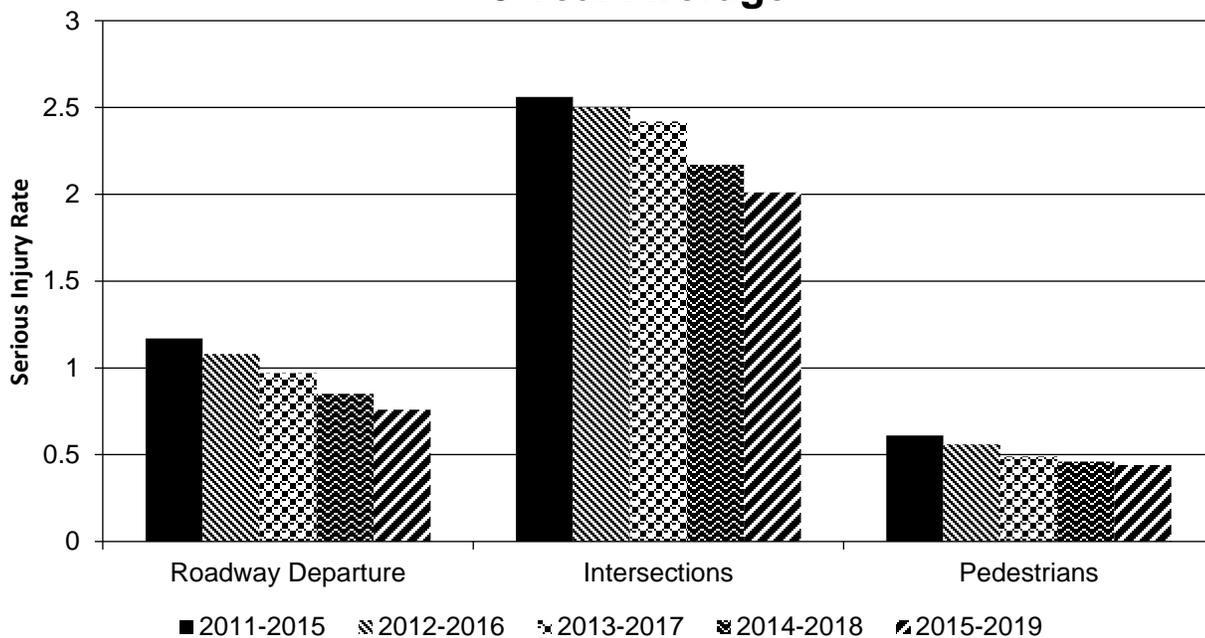
Number of Serious Injuries 5 Year Average



Fatality Rate (per HMVMT) 5 Year Average



Serious Injury Rate (per HMVMT) 5 Year Average



At the time of reporting, annual vehicle miles traveled (VMT) data is unavailable for calendar year 2019. As such, 2019 fatality and serious injury rates were calculated based on projected 2019 VMT values. 2019 VMT was projected from known 2018 VMT using FHWA's VMT forecasting growth rates (May 2019 release), which indicates a 1.1% annual growth rate for the 20-year period from 2017-2037 for "baseline economic growth". Delaware's 2015 SHSP includes 7 data-driven emphasis areas. Crash statistics for emphasis areas related to

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driver behavior (i.e., Impaired Driving, Unrestrained Motorists, Speeding) are reported in Delaware's annual Highway Safety Plan.

As shown, the number of roadway departure fatalities (based on 5-year rolling averages) has decreased from 2016 to 2019 and the number of roadway departure serious injuries has decreased annually from 2015 to 2019. The number of intersection fatalities (based on 5-year rolling averages) has generally increased from 2015 to 2019; however, the number of intersection serious injuries are generally decreasing. Pedestrian fatalities (based on 5-year rolling averages) have increased slightly from 2015 to 2019; however, pedestrian serious injuries have decreased annually during this same period.

Project Effectiveness

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

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
See comments.														

No elaboration at this time.

Compliance Assessment

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

12/31/2015

What are the years being covered by the current SHSP?

From: 2016 To: 2020

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

2020

DelDOT and its safety partners are actively working to update Delaware's SHSP by the end of 2020.

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			
	Begin Point Segment Descriptor (10) [10]	100	100					100	100	100	100
	End Point Segment Descriptor (11) [11]	100	100					100	100	100	100
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	100								
Functional Class (19) [19]	100	100					100	100	100	100	

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ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	100								
	Access Control (22) [23]	100	100								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100					100	100		
	Average Annual Daily Traffic (79) [81]	100	100					100	100		
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	100	100	100
	INTERSECTION	Unique Junction Identifier (120) [110]			100	100					
	Location Identifier for Road 1 Crossing Point (122) [112]			100	100						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	100						
	Intersection/Junction Geometry (126) [116]			100	100						
	Intersection/Junction Traffic Control (131) [131]			100	100						
	AADT for Each Intersecting Road (79) [81]			100	100						
	AADT Year (80) [82]			100	100						
	Unique Approach Identifier (139) [129]			100	100						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100	100				
	Location Identifier for Roadway at					100	100				

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ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100	100				
	Ramp Length (187) [177]					100	100				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	100				
	Roadway Type at End Ramp Terminal (199) [189]					100	100				
	Interchange Type (182) [172]						100				
	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	94.44	100.00	100.00	90.91	100.00	100.00	88.89	100.00	100.00

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

There are no non-state maintained interchanges/ramps in the state; therefore, the non-state maintained interchange/ramp section is not applicable. A value of 100 % was entered for the purposes of reporting.

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.

DeIDOT is working towards meeting the FDE requirement by September 2026.

Optional Attachments

Program Structure:

2018 HSIP Methodology Update Memo 2018-12-17.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.