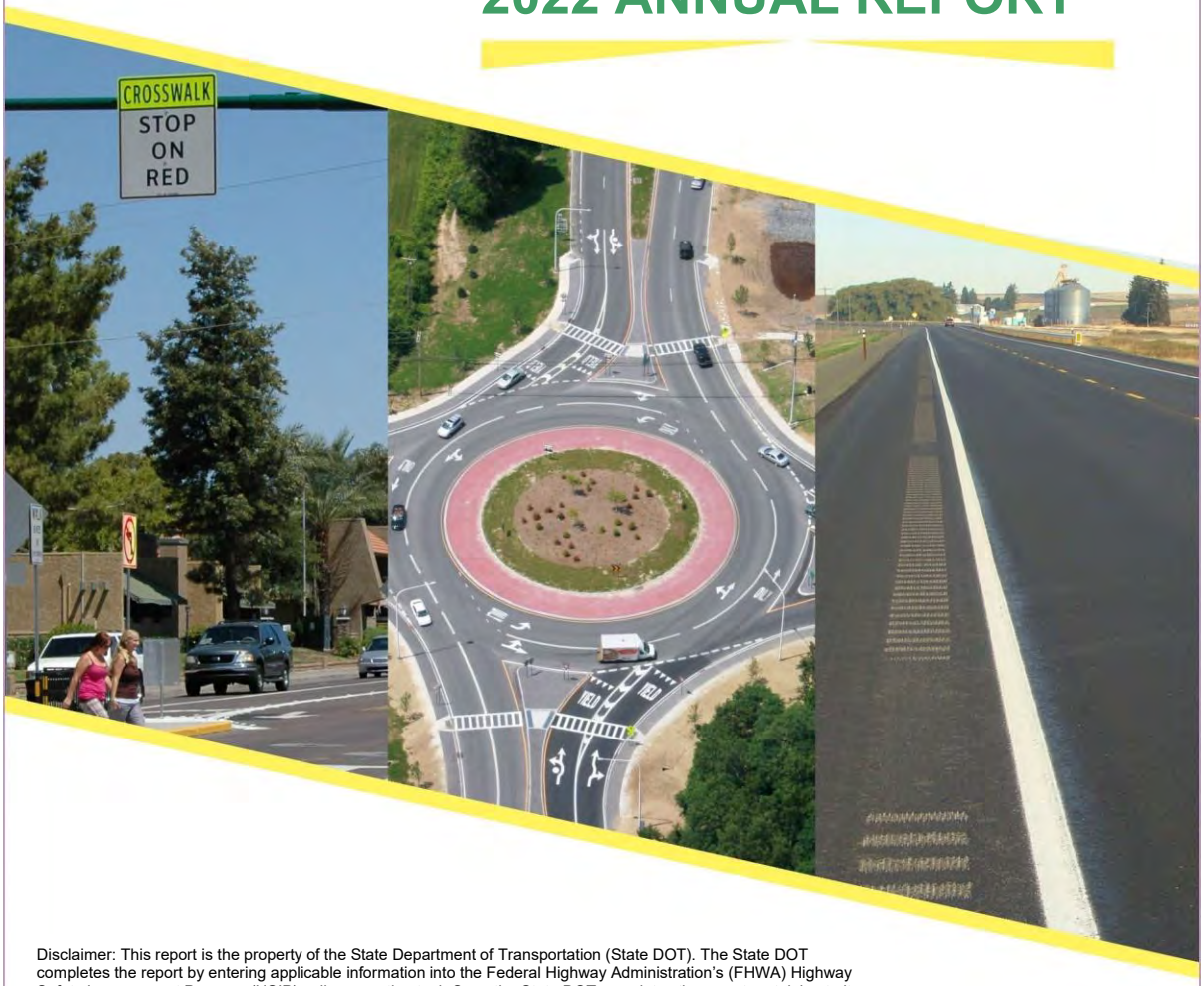
DELAWARE

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2022 ANNUAL REPORT



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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. 407 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 2022 (July 1, 2021 through June 30, 2022) to demonstrate the success of their safety program. During the 2022 reporting period, DelDOT continued its successful core HSIP programs – Hazard Elimination Program (HEP), Systemic Safety Improvement Program, Highway Rail-Grade Crossing Program (HRGX), and Strategic Highway Safety Plan (SHSP), and the High Risk Rural Roads Program (HRRRP), re-established in 2021. During the 2022 reporting period, DelDOT completed the installation of median barrier along the access-controlled portion of SR 1, continued Rectangular Rapid Flashing Beacon (RRFB) installations, began implementation of pedestrian safety improvements on US 13 in Dover based on the completed pedestrian safety audit, continued the pedestrian safety audit in the City of Wilmington, balanced safety and congestion at flashing red arrow (FRA) locations, and implemented previous years' HEP recommendations. DelDOT completed installation of new High-Friction Surface Treatment (HFST) applications, including the first application of HFST in Delaware on a freeway section. DelDOT installed its first two sets of Dynamic Curve Warning Systems and completed a statewide review of freeway ramps developing signing and pavement marking plans to prevent wrong way entries. DelDOT continued to identify new safety improvements through studies in its core programs and implemented previously identified improvements.

During the 2022 reporting period, DelDOT and its safety partners continued implementation of the strategies and actions of the 2021-2025 Delaware SHSP, completing updates to several design guidance memoranda, developing new design guidance memoranda supporting implementation of median barrier and HFST on projects, and beginning the development of a prioritization process for median barrier on non-access controlled facilities.

In compliance with federal safety performance management regulations, DelDOT developed its first HSIP Implementation Plan for Federal Fiscal Year 2022. Implementation of strategies and actions identified in the Implementation Plan are ongoing. DelDOT led efforts, in conjunction with Delaware’s Office of Highway Safety and Delaware State Police, to identify Delaware’s 2023 safety performance measure targets, which are included in this report. Based on a preliminary assessment, Delaware has met or made significant progress toward meeting two of the five 2021 safety performance measure targets.

During the 5-year period from 2016 to 2020, the annual number of fatalities averaged 120; however, the number of fatalities increased 16 percent to 139 in 2021 – a trend that was experienced nationwide. Likewise, the number of serious injuries increased in 2021; a reversal from recent downward trends. In harmony with the national safety conversation, DelDOT and its safety partners are continuing to emphasize safety on a daily basis with the goal to reverse these trends. Although these short-term trends are undesired, Delaware’s HSIP continues to identify and implement beneficial safety projects and initiatives. Despite the 2021 increases, the success of Delaware’s HSIP is demonstrated by the fact that the number of fatalities (based on 5-year rolling averages) per year remained relatively steady from 2017 to 2021 and the number of serious injuries (based on 5-year rolling averages) have decreased by over 20 percent during the 5-year period.

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:

- Strategic Highway Safety Plan (SHSP)
- Hazard Elimination Program (HEP)
    - Segment HEP
    - Intersection HEP
        - Signalized Intersection Program
        - Unsignalized Intersection Program
    - Systemic Safety Improvement Programs
        - Longitudinal Rumble Strips
        - High Friction Surface Treatment
        - Freeway Median Barrier
- Highway-Rail Grade Crossing (HRGX)
- High Risk Rural Roads Program (HRRRP)

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. Delaware's current SHSP was adopted in December 2020 and serves as the state's safety plan for 2021 through 2025.

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 Engineering Section reviews crash data, performs a field review, and identifies potential safety

improvement alternatives. Results of the HEP safety studies are distributed to 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; to solicit feedback regarding 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).

Delaware began implementing systemic safety improvements in 2015 targeting the reduction of fatal and serious injury roadway departure crashes. This was a change on how Delaware approached roadway safety by focusing on implementing proven safety countermeasures at high risk locations rather than by implementing spot treatments. Each of Delaware's systemic safety improvement programs use a data-driven approach based on several factors, including traffic volumes, roadway characteristics, functional classification, and crash history to identify and prioritize locations for implementing proven countermeasures. Delaware has implemented systemic safety improvements in the following areas:

- Longitudinal Rumble Strips: project selection considers both centerline and shoulder rumble strips, prioritizing arterials, collectors, and local roadways statewide based on curvature, shoulder width, lane width and ADT. Other considerations include noise impacts, presence of bicycle traffic, and pavement condition. Recently, Delaware adopted sinusoidal rumble strips as a standard practice on non-freeway applications. Previous three-year open-end contracts were established for implementing rumble strips using HSIP, HRRRP, and Section 154 Penalty Transfer Funds.
- High-Friction Surface Treatment (HFST): project selection prioritizes all roadways statewide based on roadway departure crash rates on wet pavements, focusing on horizontal curves and high wet-weather crash locations. Implementation has occurred using HSIP, HRRRP, and Section 154 Penalty Transfer Funds. A new contract that includes installation of HFST at 12 new locations was completed during FY2022.
- Freeway Median Barrier: project selection considers both high-tension cable barrier and double-faced guardrail, prioritizing unprotected medians along I-95 and SR 1 based on daily traffic volumes, horizontal curvature, median width, and head-on and cross-median crash rates. Installation of freeway median barrier along I-95 and SR 1 was recently completed with over 40 miles of median barrier installed. Remaining sections of I-95 are currently in design as well as the limits of US 301. Median barrier for portions of non-access controlled SR 1 are also in design, extending barrier south into Sussex County. DelDOT is now moving towards prioritizing non-freeway median sections on principal arterials.

Delaware's HRGX Program serves as its Rail-Highway Crossing Program. For its 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.

In December 2018, Delaware was identified as a state that experienced an increase in the rural road fatality rate, triggering the MAP-21 Special Rule and the requirement to obligate a portion of HSIP funding to high risk rural road safety projects. In conformance with the Special Rule, DelDOT obligated $900,000 in FFY2020 to develop and execute a high risk rural roads program. A site selection process was developed and modeled upon DelDOT's HEP, using the critical ratio methodology to identify segment locations and the crash severity index methodology to identify intersection locations (with a few rural road-specific modifications). The segment site selection process is consistent with the HEP segment site selection process but with two modifications: 1) reduces the minimum number of fatality and injury crashes within a site from five to two along a 0.3 mile segment; and 2) only considers roadways identified as rural major collector, rural minor collector or rural local.

The intersection site selection process utilizes the HEP intersection site selection process with three modifications: 1) while the HEP process identifies intersections from separate lists for signalized and unsignalized intersections, a single ranked list of all intersections (signalized and unsignalized) is used for HRRRP; 2) applies a criterion of a minimum of five fatal, personal injury, and/or property damage only crashes during a three-year period (no minimum was established for HEP); and 3) only considers intersections consisting of rural major collector, rural minor collector; and/or rural local roadways based on data contained in DelDOT's Transportation System Data Management.

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 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

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 2022 (July 1, 2021 - June 30, 2022), components of Delaware's HSIP included the Strategic Highway Safety Plan (SHSP), the Hazard Elimination Program (HEP), the Systemic Safety Improvement Program, Highway-Rail Grade Crossing Safety Program (HRGX), and High Risk Rural Roads Program (HRRRP). Additional administration accomplishments for the FY 2021 reporting period include:

- Completed installation of 10 new High-Friction Surface Treatment applications.

- Continued Rectangular Rapid Flashing Beacon (RRFB) installations.

- Continued to balance safety and congestion improvements at flashing red arrow (FRA) locations.

- Continued enhancements to the Crash Analysis and Reporting System (CARS)

- Implemented a Dynamic Curve Warning System on I-95 southbound approaching the Brandywine River Bridge to address historical curve related roadway departure crashes.

- Implemented a second Dynamic Curve Warning System on the ramp from I-95 NB to SR 1 SB to address roadway departure crashes.

- Began implementation of pedestrian safety improvements recommended from the US 13 Dover Pedestrian Safety Audit.

Program Methodology

Select the programs that are administered under the HSIP.

- Horizontal Curve
- HRRR
- Intersection
- Median Barrier
- Segments

- Wrong Way Driving
- Other-Longitudinal Rumble Strips
- Other-High Friction Surface Treatment

Program: Horizontal Curve

Date of Program Methodology:8/1/2022

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-Hot Spots by Request

Exposure

- Volume

Roadway

- Horizontal curvature
- Functional classification

What project identification methodology was used for this program?

- Other-All horizontal curves.

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

No

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

How are projects under this program advanced for implementation?

- selection committee

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

Rank of Priority Consideration

Available funding:1

Program: HRRR

Date of Program Methodology:4/1/2021

What is the justification for this program?

- Other-MAP-21 Special Rule

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• Other-Fatal and Injury Crashes Only	• Volume	• Functional classification

What project identification methodology was used for this program?

- Critical 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?

- 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:50
Cost Effectiveness:50
Total Relative Weight:100

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
• Other-Fatal and Injury Crashes Only		

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?

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:50
Cost Effectiveness:50
Total Relative Weight:100

Program: Median Barrier

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
• Other-All roadway departure crashes, head-on crashes, and cross-median crashes	• Volume • Other-Roadway Miles	• 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: 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?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• Other-Fatal and Injury Crashes Only	• Volume • Other-Roadway Miles	• 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: Wrong Way Driving

Date of Program Methodology:8/1/2022

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
• Other-Wrong Way Crashes		

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?

- 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:50
Cost Effectiveness:50
Total Relative Weight:100

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	Exposure	Roadway
• Other-All roadway departure crashes	• Volume • Other-Roadway Miles	• 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
• 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?

13

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

- Other-Median Barrier

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
- Stakeholder input

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

As part of the national SPaT Challenge, DelDOT has equipped intersections along US 13 in Smyrna as well as intersections in Dover with dedicated short-range communication (DSRC) roadside equipment. 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. Although the HSIP may not be the direct catalyst, DelDOT has undertaken and implemented many ITS solutions to improve safety that are in alignment with its SHSP. A few examples include the installation of a dilemma zone detection system, queue detection systems for the I-95 Wilmington Viaduct project, Variable Speed Limit signs, pilot deployments of dynamic chevrons, and wrong way entry detection. Moving ahead, we expect to have a higher level of coordination between CAV/ITS 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.

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

In 2021, as part of the 2020 HEP, DelDOT implemented a virtual process for the HEP committee to review HEP site recommendations in response to the Covid-19 pandemic. Historically, the HEP committee would meet in person and the recommendations presented to the committee and feedback regarding the recommendations was provided and incorporated into the final studies. DelDOT moved to a Bluebeam review session that was provided to all stakeholders for the purposes of reviewing study documentation and recommendations. This resulted in more feedback than previously received during in-person meetings and allowed for more stakeholders to remain engaged in the process. Due to the success of this process, DelDOT has incorporated this methodology into its standard HEP practice.

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)	$12,604,500	$16,323,206	129.5%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$35,623	0%
Penalty Funds (23 U.S.C. 154)	$2,408,900	$2,411,426	100.1%
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)	$23,109,500	$0	0%
State and Local Funds	$0	$0	0%
Totals	$38,122,900	$18,770,255	49.24%

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?

$1,598,490

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

$1,598,490

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.

No impediments at this time.

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
T200711201 - HSIP SR24 @ Mount Joy Road and SR24 at Bay Farm Road Intersection	Intersection geometry	Add/modify auxiliary lanes	2	Intersections	$7196585	$10779659	HSIP (23 U.S.C. 148)	Urban	Major Collector	18,200	50	State Highway Agency	Spot	Intersections	Intersection 1.0: Reduce the frequency and severity of intersection crashes through operational, geometric and traffic control device improvements.
T200711201 - HSIP SR24 @ Mount Joy Road and SR24 at Bay Farm Road Intersection	Intersection geometry	Add/modify auxiliary lanes	2	Intersections	$2488	$2488	Penalty Funds (23 U.S.C. 154)	Urban	Major Collector	18,200	50	State Highway Agency	Spot	Intersections	Intersection 1.0: Reduce the frequency and severity of intersection crashes through operational, geometric and traffic control device improvements.
T200900704 - HSIP NCC, SR273 Appleby Rd to Airport Rd	Intersection geometry	Add/modify auxiliary lanes	1	Intersections	$487620	$739800	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,600	45	State Highway Agency	Spot	Intersections	Intersection 1.0: Reduce the frequency and severity of intersection crashes through operational, geometric and traffic control device improvements.
T201000701 - HSIP NCC, SR71, Old Port Road to SR7	Intersection traffic control	Modify control – new traffic signal	1	Intersections	$32000	$120000	HSIP (23 U.S.C. 148)	Urban	Major Collector	4,300	35	State Highway Agency	Spot	Intersections	Intersection 1.0: Reduce the frequency and severity of intersection crashes through operational, geometric and traffic control

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
															device improvements.
T201200902 - HSIP SC, SR24 at Camp Arrow Head Rd and SR24 at Angola Rd	Intersection geometry	Add/modify auxiliary lanes	2	Intersections	$3002398	$10076100	HSIP (23 U.S.C. 148)	Urban	Major Collector	19,250	45	State Highway Agency	Spot	Intersections	Intersection 1.0: Reduce the frequency and severity of intersection crashes through operational, geometric and traffic control device improvements.
T201200903 - HSIP SR24 at SR5/SR23 Intersection Improvements	Intersection geometry	Add/modify auxiliary lanes	1	Intersections	$278353	$309281	HSIP (23 U.S.C. 148)	Urban	Major Collector	14,900	45	State Highway Agency	Spot	Intersections	Intersection 1.0: Reduce the frequency and severity of intersection crashes through operational, geometric and traffic control device improvements.
T201500201 - HEP KC, SR8 & SR15 Intersection Improvement	Intersection geometry	Intersection geometry - other	1	Intersections	$2700000	$6846902	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	20,600	40	State Highway Agency			
T201900901 - HSIP SR24 Corridor Projects Coordination	Miscellaneous	Transportation safety planning	1	Locations	$900000	$1000000	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0					
T201901002 - Median Barrier Installation, Statewide Open End	Roadside	Barrier - other	14	Miles	$2408938	$2408938	Penalty Funds (23 U.S.C. 154)	Urban	Principal Arterial-Other Freeways & Expressways	42,000	65		Systemic	Roadway Departure	Roadway Departure 2.0 Minimize the consequence of leaving the roadway by improving the roadside environment.
T201904201 - HEP KC, US113 @	Intersection geometry	Add/modify auxiliary lanes	1	Intersections	$29240	$32489	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	57,171	40	State Highway Agency	Spot	Intersections	Intersection 1.0: Reduce the frequency

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
SR14 Intersection Improvements															and severity of intersection crashes through operational, geometric and traffic control device improvements.
T202001001 - FY2021 Highway Safety Improvement Program	Miscellaneous	Transportation safety planning	1	Statewide	$534942	$594380	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot and Systemic	Multiple/Varies	Multiple/Varies
T202100401 - 2019 Hazard Elimination Program - Traffic Control Device Improvement	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Statewide	$35623	$39581	HRRR Special Rule (23 U.S.C. 148(g)(1))	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Multiple/Varies	Multiple/Varies
T202100401 - 2019 Hazard Elimination Program - Traffic Control Device Improvement	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Statewide	$377	$419	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Multiple/Varies	Multiple/Varies
T202101004 - FY2022 Highway Safety Improvement Program	Miscellaneous	Transportation safety planning	1	Statewide	$884354	$982616	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot and Systemic	Multiple/Varies	Multiple/Varies
T202200201 - Bay Road-SR10 Wrong Way ITS	Advanced technology and ITS	Wrong-way Driving Detection System	1	Intersections	$98143	$109048	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	27,675	40	State Highway Agency	Spot	Intersections	Intersection 2.0: Reduce the frequency and severity of intersection crashes using innovative technology and automated enforcement practices.

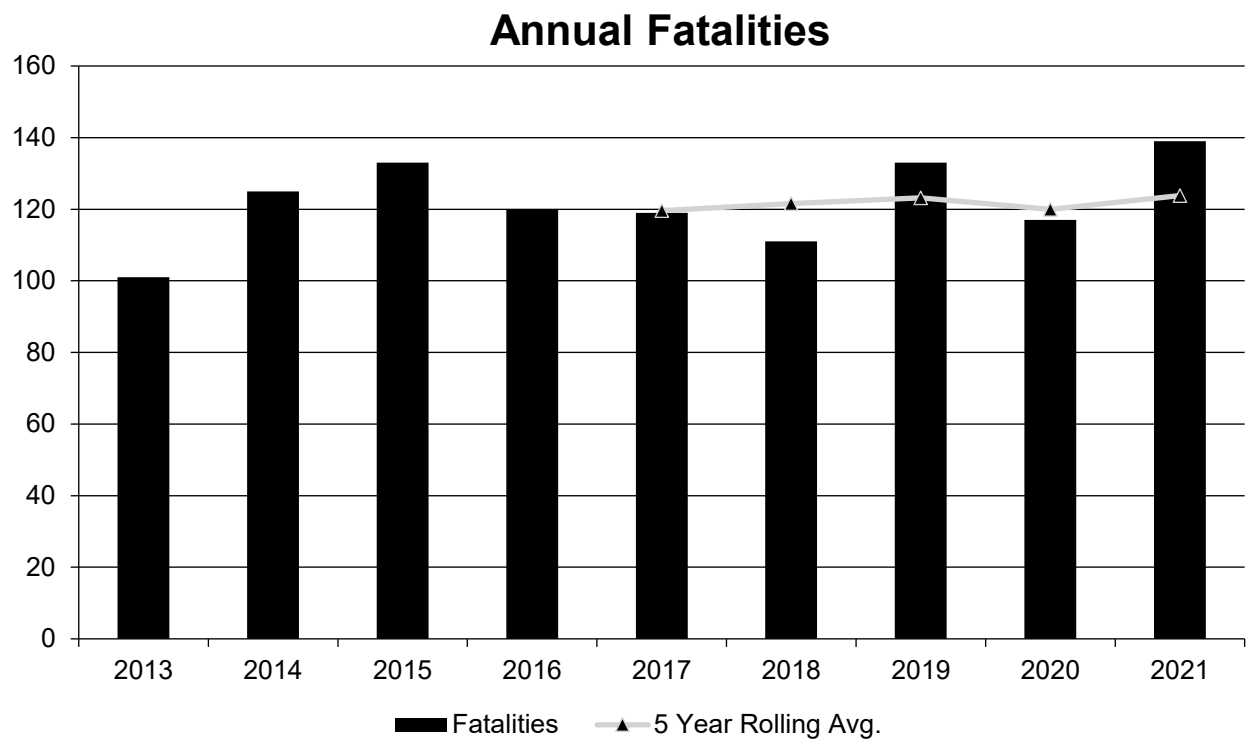
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
T202269002 - Pedestrian Safety Studies and Implementation	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Statewide	$179194	$199104	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot	Pedestrians	Various

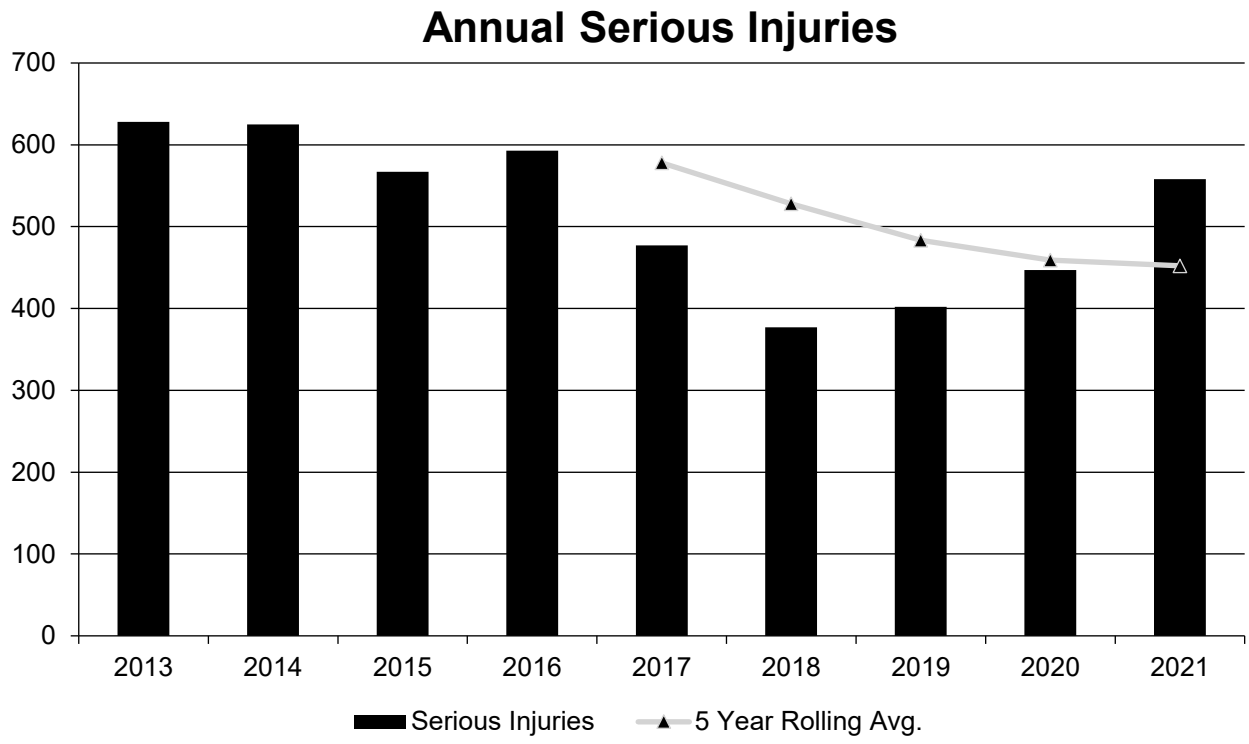
Safety Performance

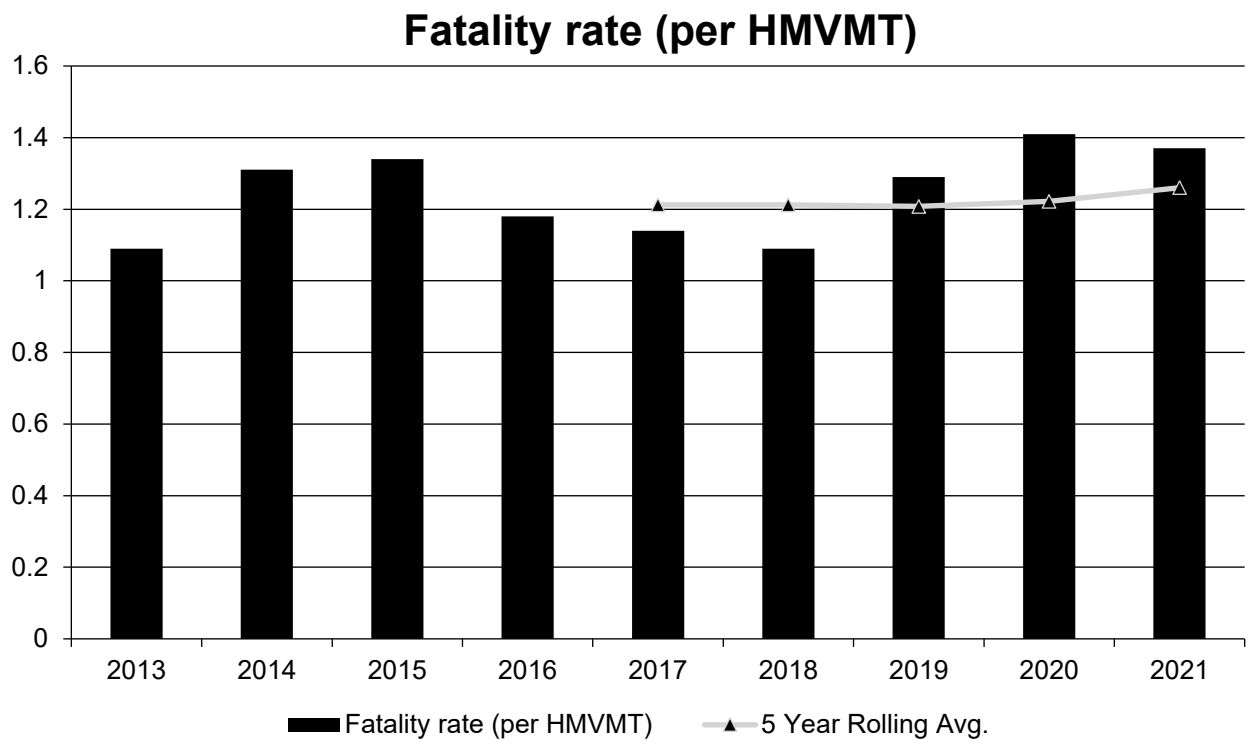
General Highway Safety Trends

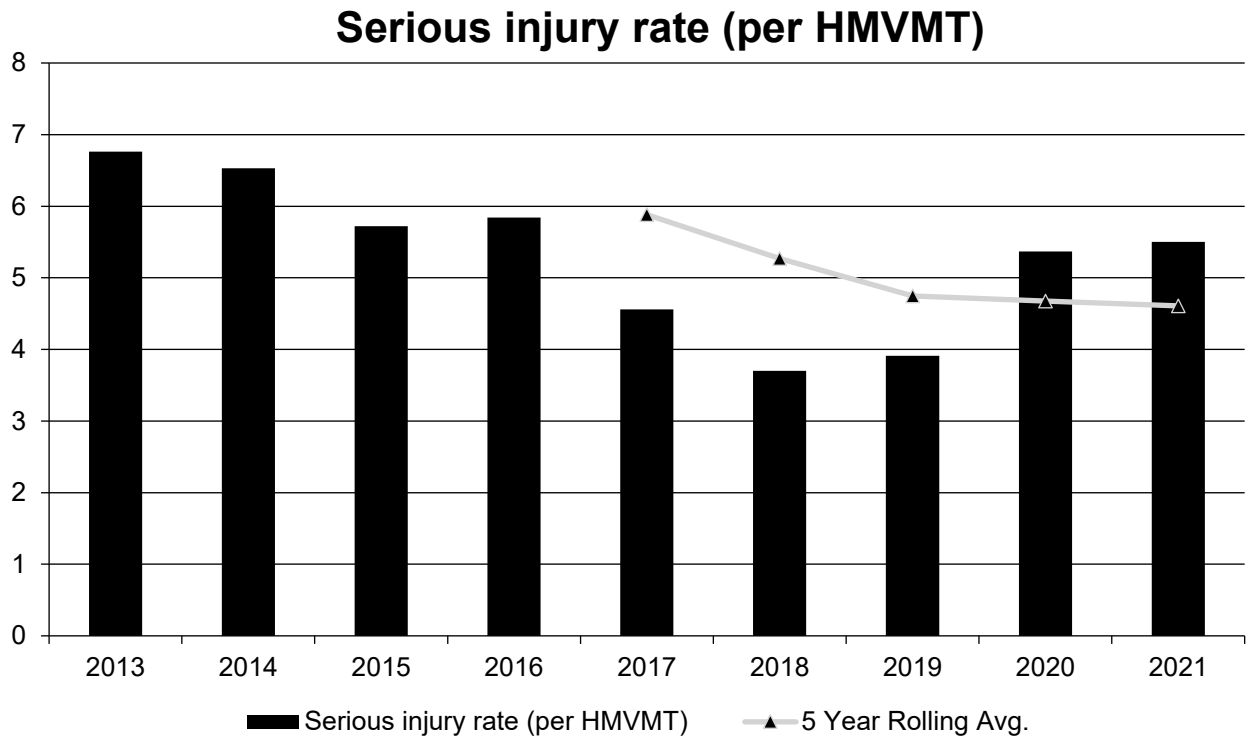
Present data showing the general highway safety trends in the State for the past five years.

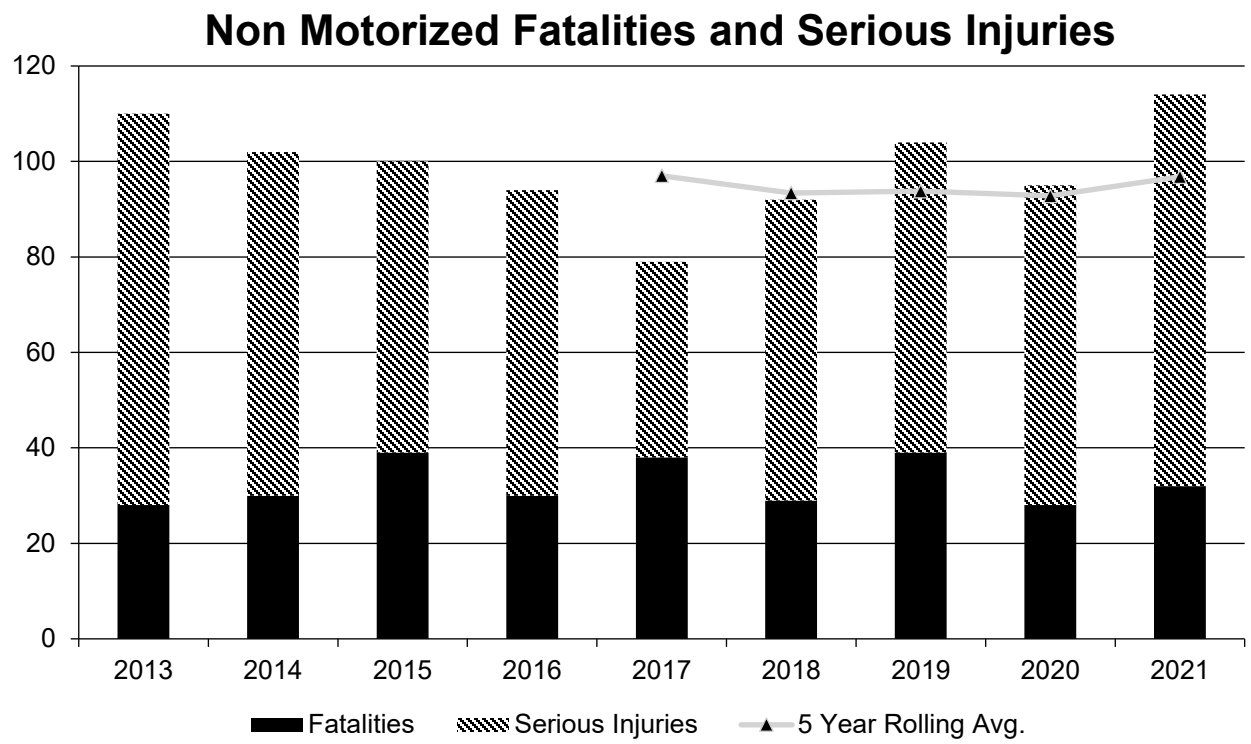
PERFORMANCE MEASURES	2013	2014	2015	2016	2017	2018	2019	2020	2021
Fatalities	101	125	133	120	119	111	133	117	139
Serious Injuries	628	625	567	593	477	377	402	447	558
Fatality rate (per HMVMT)	1.090	1.310	1.340	1.180	1.140	1.090	1.290	1.410	1.370
Serious injury rate (per HMVMT)	6.760	6.530	5.720	5.840	4.560	3.700	3.910	5.370	5.500
Number non-motorized fatalities	28	30	39	30	38	29	39	28	32
Number of non-motorized serious injuries	82	72	61	64	41	63	65	67	82


Annual Fatalities
160
140
120
100
80
60
40
20
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
700
600
500
400
300
200
100
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
8
7
6
5
4
3
2
1
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



For the purposes of this reporting, state data was used for both the number of fatalities and serious injuries. As a result of mitigation measures for the COVID-19 pandemic, vehicle miles traveled in CY 2020 were approximately 20 percent lower than CY 2019.

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 relied on FARS data as required by the SPM Final Rule. The difference between the number of fatalities reported in FARS and CARS is typically no more than one, so data interpretations are unaffected.

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

Year 2021

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate				
Rural Principal Arterial (RPA) - Other	2.4	7.8	0.62	1.96

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	8.2	27.6	1.17	3.95
Rural Minor Arterial	5	17	2.04	6.95
Rural Minor Collector	7	17	4.41	10.81
Rural Major Collector	13	39.4	2.44	7.25
Rural Local Road or Street	11.2	33	2.63	7.88
Urban Principal Arterial (UPA) - Interstate	8.4	25	0.6	1.79
Urban Principal Arterial (UPA) - Other Freeways and Expressways	4	9.2	0.58	1.3
Urban Principal Arterial (UPA) - Other	31.2	101.2	1.44	4.6
Urban Minor Arterial	14.4	71.2	1.29	6.54
Urban Minor Collector	1.2	5.4		8.23
Urban Major Collector	9.6	51	1.13	6.05
Urban Local Road or Street	8.2	46.8	0.79	4.52

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				

Since DelDOT maintains approximately 85 percent of all roads in Delaware, Delaware does not report on roadway ownership 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 2017 to 2021, ranging from 118.4 to 123.4. During the same period, the number of serious injuries (based on 5-year rolling averages) per year have steadily declined from 578 in 2016 to 452 in 2021, a reduction of 22 percent. Statewide vehicle miles traveled (VMT) averaged approximately 103 HMVMT from 2017 to 2019; however, decreased approximately 20 percent to 83.22 HMVMT in 2020 due to travel restrictions implemented for the

COVID-19 pandemic. VMT was 101.5 in 2021, which is an indication that travel is returning to pre-COVID levels. As a result of the reduced VMT, the fatality and serious injury rates for calendar year 2020 were 20 and 19 percent greater than the annual average for the preceding four years. Unfortunately, CY 2021 fatality and serious injury rates have held consistent with the increased CY 2020 rates. 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 2023 Targets *

Number of Fatalities:108.2

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

During 2020, DelDOT and OHS and other statewide safety partners (including FHWA and NHTSA) collaborated to develop the 2021-2025 Delaware Strategic Highway Safety Plan: Toward Zero Deaths (2021-2025 SHSP), which provides a framework to reduce fatalities and serious injuries resulting from crashes on Delaware's roadways. As part of the plan's development, several trendlines were reviewed to establish an aggressive, yet achievable, overall objective. Through a comparison of these trendlines, the reduction of combined fatalities and serious injuries ranged from 2.6 to 4.4 percent annually or 12 to 20 percent over five years. Based on these historic trends, the 2021-2025 SHSP established a five-year overall objective to reduce fatalities and serious injuries by 15 percent (a 3.2 percent annual reduction) as measured from the 2015-2019 five-year rolling average.

In Spring 2022, DelDOT and OHS coordinated to set Delaware's 2023 safety performance measure targets and agreed to align the annual SPM targets with the 2021-2025 SHSP's five-year overall objective. The objectives outlined in the 2021-2025 SHSP are frequency-based using five-year rolling averages; therefore, 2023 SPM targets 1, 3, and 5 were calculated using projections based on the 2021-2025 SHSP's objective to reduce fatalities and serious injuries by 15 percent over 5 years. Projected fatality and serious injury numbers were combined with projected vehicle miles traveled (VMT) to calculate the two rate-based SPM targets (i.e., 2 and 4). The table below shows the historical performance for 2017 to 2021, 2021 Baseline, 2023 Targets, and the CY2022 and CY2023 average values required to match the 2021 Baseline and 2023 Targets. FWHA determines a state has met or made significant progress when actual performance matches the established target or is better than the baseline for at least four of the five SPM targets.

Number of Serious Injuries:424.3

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

See description under Number of Fatalities.

Fatality Rate:1.108

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

See description under Number of Fatalities.

Serious Injury Rate:4.350

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

See description under Number of Fatalities.

Total Number of Non-Motorized Fatalities and Serious Injuries:82.4

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

See description under 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) in Spring 2022, 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 2021 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	112.4	123.8
Number of Serious Injuries	379.0	452.2
Fatality Rate	1.134	1.260
Serious Injury Rate	3.962	4.608
Non-Motorized Fatalities and Serious Injuries	89.0	96.8

2021 SPM targets were established in Spring 2020 to consider safety performance through the end of calendar year 2021. 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. As previously noted, crash data from Delaware's Crash Analysis Reporting System (CARS) was used instead of FARS data for this report. The difference between the number of fatalities reported in FARS and CARS is typically no more than one. The actual observed data in this question is generated using CARS data; however, the descriptions below are based on FARS data if available, which results in minor rounding differences. Based on this

preliminary assessment (described below), Delaware has met or made significant progress toward meeting two of the five 2021 Safety Performance Measure Targets.

1. Number of Fatalities – Delaware's 2017-2021 5-year rolling average value is 123.4 or 11.0 fatalities greater than the 112.4 target and 1.0 fatalities greater than the 122.4 2015-2019 baseline. Fatalities decreased in 2018 compared to 2017; however, fatalities increased to 133 in 2019. In 2020 during the most COVID-19 related travel restriction periods, fatalities decreased to 117; however, remained within recent ranges of variability. In 2021, fatalities increased to 139, the highest since 2006. Since actual performance is greater than the SPM target baseline, this SPM target is NOT MET.

2. Number of Serious Injuries – Delaware's 2017-2021 5-year rolling average value is 452.2 or 73.2 serious injuries greater than the 379.0 target and 68.6 less than the 483.2 2015-2019 baseline. At the end of September 2017, Delaware implemented a change to its serious injury definition in accordance with a federal mandate. For CY2018 & CY2019, the annual number of serious injuries averaged 390 which is 25 percent less than the average annual number of serious injuries for the two years before and after the definition change (i.e., 2016, 2017, 2020, and 2021). Since actual performance is less than the baseline, this SPM target is MET.

3. Rate of Fatalities – Delaware's 2017-2021 5-year rolling average value is 1.258, which is higher than the 1.134 target and 1.202 2015-2019 baseline. As a result of reduced VMT in 2020 due to COVID-19 restrictions, the fatality rate for 2020 was 20 percent greater than the annual average for the preceding four years. This SPM target is NOT MET.

4. Rate of Serious Injuries – Delaware's 2017-2021 5-year rolling average value is 4.618, which is higher than the 3.962 target and less than the 4.746 2015-2019 baseline. As a result of reduced VMT in 2020 due to COVID-19 restrictions, the serious injury rate for 2020 was 19 percent greater than the annual average for the preceding four years. Since actual performance is less than the baseline, this SPM target is MET.

5. Combined Number of Non-Motorized Fatalities and Serious Injuries – Delaware's projected 20162017-2020 2021 5-year rolling average value is 97.0, which is higher than the 89.0 target and higher than the 94.0 2015-2019 baseline. Since actual performance is greater than both the target and baseline, this SPM target is NOT MET.

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	2015	2016	2017	2018	2019	2020	2021
Number of Older Driver and Pedestrian Fatalities	14	17	19	16	27	22	24
Number of Older Driver and Pedestrian Serious Injuries	42	42	46	27	31	28	49

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, 2021 FARS data is unavailable; therefore, State data is reported for CY 2021.

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 (General Highway Safety Trends Description) 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?

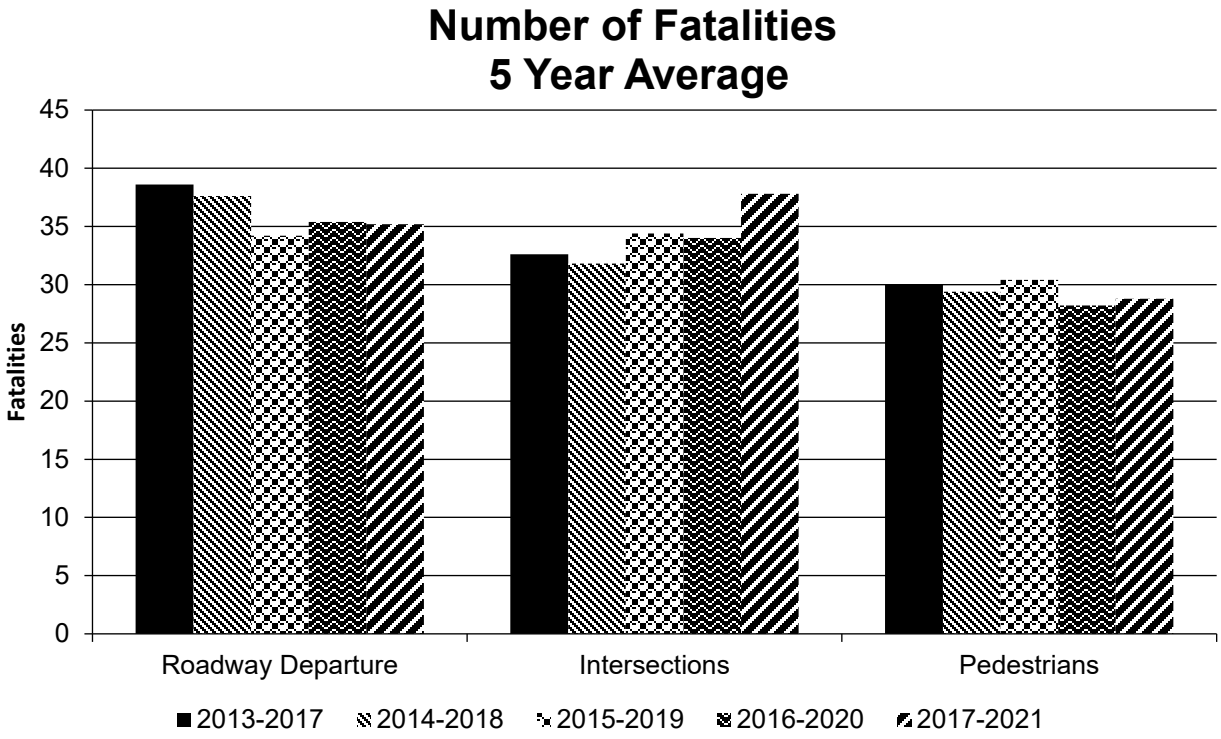
- # miles improved by HSIP
- # RSAs completed
- More systemic programs

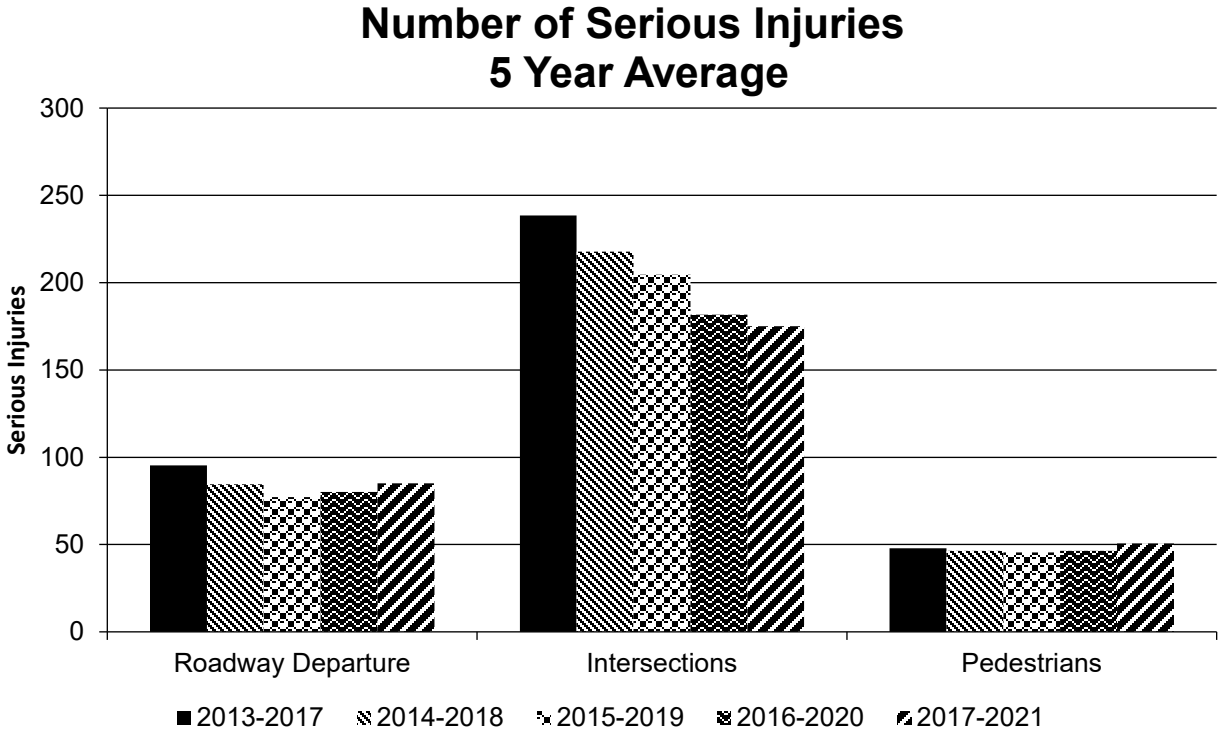
Effectiveness of Groupings or Similar Types of Improvements

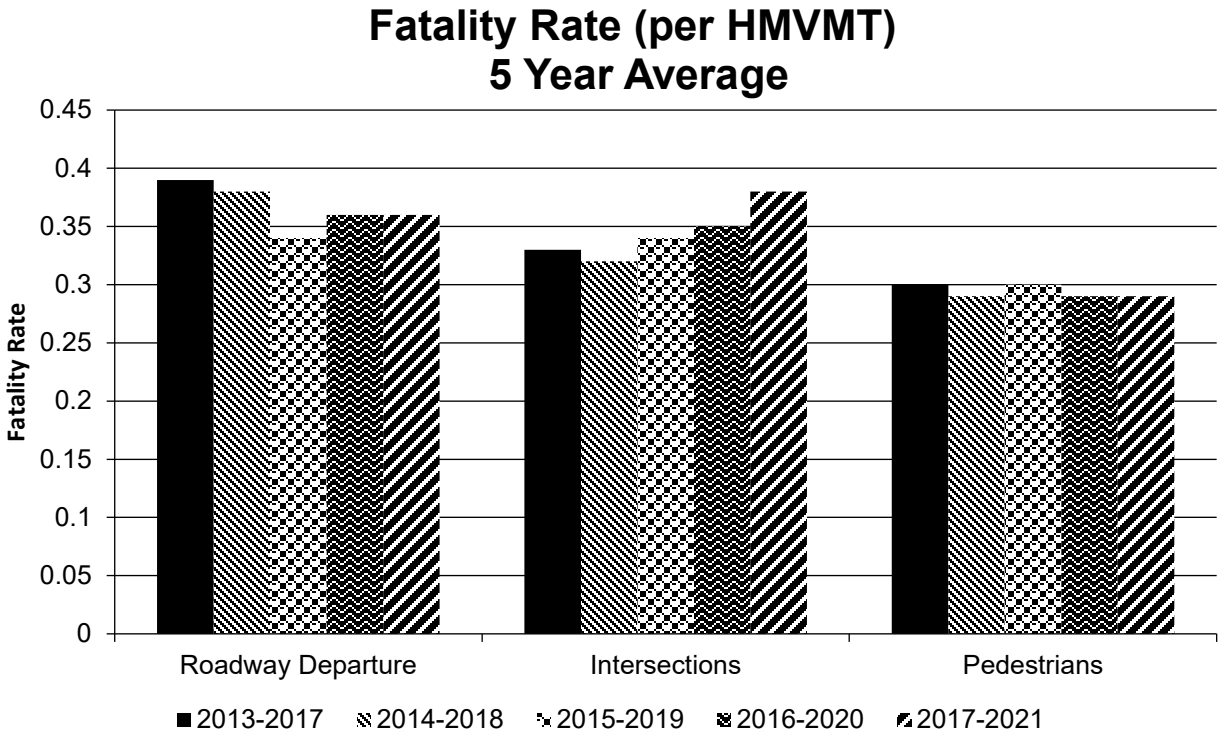
Present and describe trends in SHSP emphasis area performance measures.

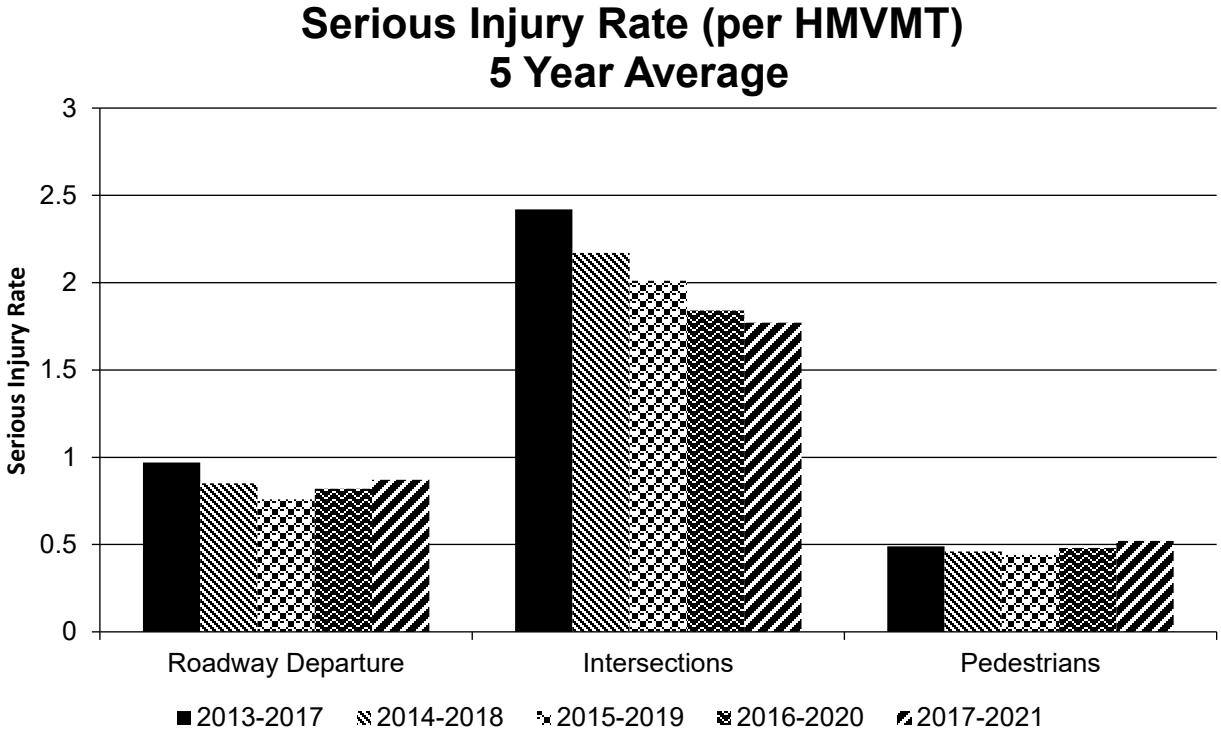
Year 2021

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		35.2	85	0.36	0.87
Intersections		37.8	175	0.38	1.77
Pedestrians		28.8	50.6	0.29	0.52


Number of Fatalities
5 Year Average
Fatalities
45
40
35
30
25
20
15
10
5
0
Roadway Departure
Intersections
Pedestrians
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021


Number of Serious Injuries
5 Year Average
Serious Injuries
300
250
200
150
100
50
0
Roadway Departure
Intersections
Pedestrians
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021





As shown, the number and rate of roadway departure fatalities and serious injuries (based on 5-year rolling averages) decreased from 2017 to 2019 but increased slightly in 2020 and 2021. The number and rate of intersection fatalities (based on 5-year rolling averages) has generally increased from 2017 to 2021; however, the number and rate of intersection serious injuries has generally decreased during the same time period. The

number and rate of pedestrian fatalities and serious injuries (based on 5-year rolling averages) has remained relatively steady from 2017 through 2021; however, there has been an uptick in serious injuries in 2021.

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 additional comments.														

No information to report at this time.

Compliance Assessment

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

12/31/2020

What are the years being covered by the current SHSP?

From: 2021 To: 2025

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

2025

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
	Median Type (54) [55]	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
	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 Beginning of Ramp Terminal (197) [187]					100	100				

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	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.

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

Optional Attachments

Program Structure:

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.