WEST VIRGINIA

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2024 ANNUAL REPORT

Disclaimer: This report is the property of the State Department of Transportation (State DOT). The State DOT completes the report by entering applicable information into the Federal Highway Administration's (FHWA) Highway Safety Improvement Program (HSIP) online reporting tool. Once the State DOT completes the report pertaining to its State, it coordinates with its respective FHWA Division Office to ensure the report meets all legislative and regulatory requirements. FHWA's Headquarters Office of Safety then downloads the State's finalized report and posts it to the website (https://highways.dot.gov/safety/hsip/reporting) as required by law (23 U.S.C. 148(h)(3)(A)).

Photo source: Federal Highway Administration

Table of Contents

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 Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a signification reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.14, states are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. This report describes West Virginia's implementation and effectiveness of its Highway Safety Improvement Program from July 1, 2023, through June 30, 2024, and satisfies the requirements of 23 U.S.C. 148(h) and 23 CFR 924.14. The established formal report consists of five sections: program administration, progress in implementing projects, progress in achieving safety performance targets, assessment of the effectiveness of the improvements, and compliance assessment.

In 2007, West Virginia developed its first Strategic Highway Safety Plan, which focused on nine specific emphasis areas. At the time West Virginia had 432 fatalities and 5,994 serious injuries. Since then, the HSIP has primarily focused on emphasis areas identified in the SHSP.

West Virginia's most recent SHSP was adopted in 2022 through coordination with the State's Highway Safety Management Tast Force. The current SHSP builds upon the success and lessons learned of previous plans and will serve as the state's safety plan from 2022 through 2026. The Plan includes eight emphasis areas. Five of these are Statewide in nature: Speeding and Aggressive Driving, Roadway Departure, Occupant Protection, Older Driver Involved, and Alcohol and Drug Impaired Driving. For the first time ever, the 2022 SHSP saw Roadway Departure fall to the number 2 emphasis area. However, as identified in our HSIP Implementation Plan, roadway departure crashes remain a significant issue in West Virginia. They remain the most significant safety concern for nearly all counties for which fatalities and serious injuries are not trending downward, thus opportunities for improvements in this emphasis remain. Similarly, opportunities for improvement continue to exist within the other four statewide Emphasis Areas.

The 2022 SHSP also has provided the opportunity to be proactive in some areas that are trending upward. While not statewide concerns, two upward trending emphasis areas were selected to be regionally focused: Intersections and Pedestrians. To ensure support of the SHSP, the HSIP and integrating safety into the DOT programmatically another emphasis area was selected: Improving Highway Safety Data to continue a strong concentration of effort in this area.

All SHSP implementation efforts in the State are being coordinated through the State's Highway Safety Management Task Force. Over the course of the past year, the Task Force has developed implementation plans for each of the SHSP Emphasis Areas. All Emphasis Areas have been assigned a leader and multidisciplinary teams have been developed for each area. WVDOH leads the Task Force, as well as chairs multiple Emphasis Area. WVDOT has members on all emphasis area teams. Our Division of Highways leads infrastructure and data improvements, while our Governor's Highway Safety Office and State Police lead some of the additional Emphasis Area. These improvements make up the majority of the HSIP projects and are mainly focused on reducing road departure crashes; however, infrastructure projects are planned which fall with the pedestrian and intersection emphasis areas too.

In the 15 years since the SHSP was adopted, West Virginia has experienced a significant drop in fatalities and serious injuries. The 25% decline in fatalities was across all road classifications and HSIP funded projects throughout the state. Even though WVDOH maintains 94% of the state's system including the majority of local roads, all routes open to the traveling public are evaluated for HSIP funding. WVDOH works with local governments as well as Metropolitan Planning Organizations to ensure the State's safety needs are being addressed.

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.

West Virginia's Highway Safety Improvement Program (HSIP) is coordinated by the Traffic Engineering Division. The Division is responsible for reviewing and evaluating any project that is a candidate for highway safety funds. The initial review and evaluation of a potential project will include the analysis of crash data for the location, a field review of the site (as appropriate), and the collection of any other information found appropriate to evaluate the proposed project. All projects are supported by the Strategic Highway Safety Plan and were selected using a data driven process.

Once a positive safety benefit is determined to exist for a project, the methodology discussed later is used to select the prioritized projects for the State's HSIP. Upon project selection for the HSIP, the Traffic Engineering Division is responsible for selecting an HSIP funding category for the project, submitting appropriate programming documents where HSIP funds are encumbered, and projects are assigned within the State's Statewide Transportation Improvement Program (STIP). Traffic Engineering Division monitors the use of HSIP funds and evaluates the effectiveness of a project following its completion. The annual apportionment for HSIP for West Virginia in fiscal year 2024 was approximately $33.6 million. These funds can be used either for stand-alone projects or in conjunction with other funding to partially fund the safety enhancement portion of a larger project.

Where is HSIP staff located within the State DOT?

Other-Traffic Engineering

How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process
- SHSP Emphasis Area Data

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

West Virginia Department of Transportation maintains approximately ninety-four percent (94%) of the roads in the State, including all secondary or county routes. As such, all HSIP funds are typically used for highway safety projects on the State Highway System. Very few of the State's municipalities own city streets. These are typically lower volume and do not have significant numbers of fatal or serious injury crashes occurring on them; however, should a safety concern exist on a municipal street, the project would be eligible to compete for available HSIP funds. All routes, including locally owned routes, are included when annual ranking lists are made. Rankings are based on classification, so the lower AADT routes are not competing against higher

multilane routes. Only routes that are higher than the state average for crashes are evaluated for countermeasures.

If a municipality desires to request safety funds for a project, they must contact the Highway Safety & Data Coordination Section of the WVDOH's Traffic Engineering Division or its local MPO. The municipality would need to provide the general scope of the proposed improvement and an estimated cost. The local roads listed in question #32 are all local roads including those owned by local municipalities.

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

- Design
- Districts/Regions
- Governors Highway Safety Office
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

Describe coordination with internal partners.

To develop, implement and review all aspects needed to maintain a successful HSIP, Traffic Engineering Division coordinates with every division within WVDOT. Any division or district can recommend a location for safety improvements. The Traffic Engineering Division also provides all divisions and districts with crash data. The Traffic Engineering Division also provides a cursory review of the crash data to identify safety concerns and trends. This review may include performing a mini-Road Safety Audit (RSA) that can be performed either at district level or a full-scale RSA involving multiple disciplines (internal and external partners). Once concerns are identified, and countermeasures are determined, an estimate to implement the countermeasures is prepared. The Traffic Engineering Division performs a benefit/cost ratio to see if the project is eligible for HSIP funding. SHSP related infrastructure projects that are identified as HSIP eligible are prioritized, and preliminary coordination occurs to obtain all information needed for project programming. All projects utilizing HSIP funds must be reviewed, approved, and programmed within the Traffic Engineering Division for program consistency. As the HSIP coordinator, the Traffic Engineering Division is involved at some level in the planning, design, and construction of all projects within the program and provides safety analysis expertise and guidance to direct the program appropriately.

Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Governors Highway Safety Office
- Law Enforcement Agency
- Local Government Agency
- Local Technical Assistance Program
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)

Describe coordination with external partners.

For the HSIP to be productive, Traffic Engineering Division (TED) must work with several external partners as well as its internal partners. The Safety Management Task Force (SMTF) is the governing body of the SHSP implementation. The SMTF is chaired by the Traffic Engineering Division with each of its technical sections

participating in work on different emphasis areas. Through the SMTF the DOH works closely with Governor's Highway Safety Program (GHSP), FHWA, Metropolitan Planning Organizations (MPO), WVU's Local Technical Assistance Program (LTAP), Law Enforcement, and several others. TED has partnered with different universities to perform research on several emphasis areas identified in the SHSP. In addition, LTAP has been instrumental in helping TED get their Traffic Incident Management (TIM) program off the ground and provides training on DOH's behalf.

The MPO's are another external partner that TED works with closely. The MPOs have been helpful in identifying potential projects throughout their urban areas. Either working through WVDOH's Planning Division, the appropriate District or contacting the TED directly, the MPO can request possible HSIP funding. The Road Safety Audit (RSA) is another key element that TED works with the MPO. Their expertise and knowledge of the area is often sought, and the MPO helps coordinate with local enforcement and officials.

Program Methodology

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

Yes

Attached is a copy of our Program Elements and Process Flow Chart. The State has developed a SHSP Implementation Plan which includes strategies and action items for each SHSP Emphasis Area. Now that is complete, the State plans to begin efforts to update and revise the HSIP Manual.

Select the programs that are administered under the HSIP.

- HRRR
- HSIP (no subprograms)
- Intersection
- Low-Cost Spot Improvements
- Median Barrier
- Pedestrian Safety
- Roadway Departure
- Rural State Highways
- Skid Hazard
- Vulnerable Road Users

Program: HRRR

Date of Program Methodology:9/1/2014

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes	• Traffic • Volume • Lane miles • Other-Speed & Class Data	• Median width • Horizontal curvature • Functional classification • Roadside features

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2

Program: HSIP (no subprograms)

Date of Program Methodology:9/1/2014

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes
- All crashes

Exposure
- Traffic

Roadway
- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2

Program: Intersection

Date of Program Methodology:6/28/2022

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes
- All crashes

Exposure
- Traffic

Roadway
- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2

Program: Low-Cost Spot Improvements

Date of Program Methodology:10/1/2016

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic

Roadway

- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2

Program: Median Barrier

Date of Program Methodology:10/1/2016

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes	• Traffic	• Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2

Program: Pedestrian Safety

Date of Program Methodology:6/28/2022

What is the justification for this program?

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

What is the funding approach for this program?

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic

Roadway

- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

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 B/C:1
Available funding:2

Program: Roadway Departure

Date of Program Methodology:9/1/2014

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes	• Traffic	• Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must

equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:1

Program: Rural State Highways

Date of Program Methodology:9/1/2014

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic

Roadway

- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2

Program: Skid Hazard

Date of Program Methodology:9/1/2014

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic

Roadway

- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on B/C:1
Available funding:2

Program: Vulnerable Road Users

Date of Program Methodology:11/28/2023

What is the justification for this program?

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

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Population

Roadway

- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

Yes

How are projects under this program advanced for implementation?

- Competitive application process

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

Rank of Priority Consideration

Ranking based on net benefit:1
Cost Effectiveness:2

What percentage of HSIP funds address systemic improvements?

64

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

- Install/Improve Pavement Marking and/or Delineation
- Traffic Control Device Rehabilitation
- Upgrade Guard Rails

West Virginia funded many guardrail and pavement marking projects during the past year

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.

The WVDOH currently has three safety projects programmed dealing with ITS technologies. The first two projects provide funds to upgrade ITS and traffic control devices throughout the state. The third project provides funds for IDIQ for ITS, signal systems, and lighting to the Wheeling Tunnel located on I-70 in Ohio County.

The total cost for the three projects is $4,822,643 which uses $4,340,379 in safety funds.

No funding has been programmed for CV/AV Technologies.

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.

In cases when the WVDOH is considering several solutions to a safety concern, the WVDOH will use the Highway Safety Manual to see what solution should give the best reduction in fatalities and injury crashes.

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

The overall purpose of the HSIP is to achieve a significant reduction in traffic fatalities and incapacitating injuries through the implementation of infrastructure related highway safety improvements. Components of West Virginia's HSIP include the Strategic Highway Safety Program (SHSP), the Highway Safety Improvement Program (HSIP), and the Railway-Highway Grade Crossing Program. All routes in West Virginia are eligible for HSIP funding including the local routes not under WVDOH control.

Seven data-driven Emphasis Areas were selected: Speeding and Aggressive Driving, Roadway Departure, Occupant Protection, Older Driver (65+) Involved, Alcohol or Drug Impaired Driving, Intersections, and Pedestrians. The seven data-drive Emphasis Areas account for 98 percent of all fatalities and 95 percent of all serious injuries. All have become a major focus of the HSIP. Projects dealing with areas of the SHSP are reviewed and funded if funds are available and the benefit/cost ratio is above 1.

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)	$43,651,208	$42,436,208	97.22%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$357,617	$357,617	100%
VRU Safety Special Rule (23 U.S.C. 148(g)(3))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$0	$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$0	$0	0%
Totals	$44,008,825	$42,793,825	97.24%

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?

$3,782,500

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

$3,782,500

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.

In 2016, West Virginia became a focus state for run off road accidents. FHWA contracted TTI to review West Virginia's crash data and develop a plan for 2018-2019 funding. This plan complimented the route selection West Virginia used in 2017 to develop the runoff the road projects currently being developed and constructed.

In 2017, West Virginia initiated a program focused on reducing road departure crashes. With this program, West Virginia used available safety funds to upgrade existing cable guardrail to high tension four strand, install new cable guardrail, fund guardrail IDIQ projects, install high friction throughout the state, fund ITS, and install new lighting at interchanges and intersections.

The WVDOH began working with the AASHTOWare Safety Numetrics to be used for the state of West Virginia. AASHTOWare Safety is software specifically designed to meet the unique needs of state transportation agencies in the area of highway traffic safety management. This system will enable WVDOH to analyze safety data and make recommendations. Phase 1 which examines segment has gone fully online with users currently being trained. Phase 2, which examines intersections, is tentatively planned to go fully online during the fall of 2024.

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 OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Flowing Spring Exit Improvement	Intersection geometry	Add/modify auxiliary lanes	1	Intersections	$1209663	$1209663	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,700	60	State Highway Agency	Spot	Intersections	
2024 D5 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D9 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D6 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Truck Signs Statewide	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Statewide	$225000	$250000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Truck	
2024 D3 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D7 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D4 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D2 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D10 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Huntington Road Diet	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	4.19	Miles	$450000	$450000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	12,700	25	State Highway Agency	Spot	Pedestrians	
Interstate Warning Signs	Roadway signs and traffic control	Curve-related warning signs and flashers	1	Statewide	$67500	$75000	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	
Wheeling Tunnel ITS Safety	Advanced technology and ITS	Advanced technology and ITS - other	0.29	Miles	$360000	$400000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	24,800	45	State Highway Agency	Spot	Data	
Walnut Street Pedestrian Morgantown	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Intersections	$270000	$300000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	5,800	25	State Highway Agency	Spot	Pedestrians	
2024 D1 Guardrail Project	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Chestnut Ridge Pedestrian Morgantown	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Intersections	$270000	$300000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	17,700	40	State Highway Agency	Spot	Pedestrians	
SHSP Support Pedestrian	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Study	$315000	$350000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Pedestrians	
Roadway Striping (D1)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$1799763	$2571090	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D7)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$2487343	$3553347	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D5)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$3053161	$4361658	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D3)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$1707507	$2439295	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Roadway Striping (D4)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$2957792	$4225418	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D10)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$2330234	$3328905	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D8)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$2017842	$2882632	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D9)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$1476532	$2109332	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D6)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$1781400	$2544857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Roadway Striping (D2)	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$2757571	$3939358	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Bolt - Glen Daniel	Roadside	Barrier- metal	9.09	Miles	$450000	$500000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	4,800	55	State Highway Agency	Spot	Roadway Departure	
Truck Restrictions	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Statewide	$360000	$400000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Truck	
Truck Parking Needs	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Statewide	$360000	$400000	HSIP (23 U.S.C. 148)	Multiple/Varies	Minor Arterial	0		State Highway Agency	Systemic	Truck	
Flowing Springs Exit Lighting (ENG)	Lighting	Intersection lighting	1	Intersections	$50000	$50000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,700	60	State Highway Agency	Spot	Intersections	
Julian Turning Lanes	Intersection geometry	Add/modify auxiliary lanes	1	Intersections	$44910	$49900	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	11,500	65	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
2024/2025 TMC Operating Budget	Miscellaneous	Data analysis	1	Statewide	$1800000	$2000000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
Smart Work Zones	Miscellaneous	Data analysis	1	Statewide	$360000	$400000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Work Zones	
East Baltimore Street +6	Pedestrians and bicyclists	ADA curb ramps	7	Intersections	$96638	$120797	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	700	25	State Highway Agency	Spot	Intersections	
D-3 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$70000	$100000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 Numetrics Program	Miscellaneous	Data analysis	1	Salary	$90000	$100000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 Safety Analysis Program	Miscellaneous	Data analysis	1	Salary	$90000	$100000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 Safety Paving Program	Miscellaneous	Data analysis	1	Salary	$67500	$75000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 Work Zone Program	Miscellaneous	Data analysis	1	Salary	$90000	$100000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 TIM Program	Miscellaneous	Data analysis	1	Salary	$90000	$100000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 RSA Program	Miscellaneous	Data analysis	1	Salary	$67500	$75000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 Crash Records Data Program	Miscellaneous	Data analysis	1	Salary	$135000	$150000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 Safety PM Program	Miscellaneous	Data analysis	1	Salary	$67500	$75000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 SHSP Program	Miscellaneous	Data analysis	1	Salary	$90000	$100000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
2024 ITS / Signal Program	Miscellaneous	Data analysis	1	Salary	$90000	$100000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 HSIP Program	Miscellaneous	Data analysis	1	Salary	$180000	$200000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
2024 RWD Program	Miscellaneous	Data analysis	1	Salary	$90000	$100000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
D-5 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
D-6 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
D-8 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
D-2 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
D-4 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$91351	$130502	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
D-7 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
D-9 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
D-10 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Transportation Management Plan	Miscellaneous	Data analysis	1	Statewide	$675000	$750000	HSIP (23 U.S.C. 148)	N/A	N/A	0		State Highway Agency	Systemic	Data	
D-1 Recall Striping 2024	Roadway delineation	Longitudinal pavement markings - remarking	1	District	$100000	$142857	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Parkway Rd - Davis Cr Lighting (ENG)	Lighting	Continuous roadway lighting	2.30	Miles	$225000	$250000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,300	65	State Highway Agency	Spot	Roadway Departure	
Young Monument - Birch River Road	Roadside	Barrier- metal	4.87	Miles	$240000	$300000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	8,700	65	State Highway Agency	Spot	Roadway Departure	
US 60 Alloy Plant Entrance Flasher	Intersection traffic control	Intersection flashers –sign-mounted or overhead	1	Intersections	$21567	$21567	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,900	55	State Highway Agency	Spot	Intersections	
2024 D1 Guardrail Project (CON)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$498500	$498500	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 RPM	Roadway delineation	Raised pavement markers	3	District	$750760	$834178	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
WV 20 at Baker St Traffic Signal	Intersection traffic control	Modify traffic signal –other	1	Intersections	$354861	$394290	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,400	35	State Highway Agency	Spot	Intersections	
Virginia Street	Roadway	Pavement surface - other	0.15	Miles	$224939	$249932	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	3,400	25	State Highway Agency	Spot	Roadway Departure	
I-77 Ripley I/C Lighting +2	Lighting	Interchange lighting	3	Interchanges	$2222	$2222	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	13,800	70	State Highway Agency	Spot	Roadway Departure	
North Washington Street	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1	Study	$619678	$688531	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	6,200	25	State Highway Agency	Spot	Pedestrians	
2024 D7 Guardrail Project (CON)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$583561	$583561	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	

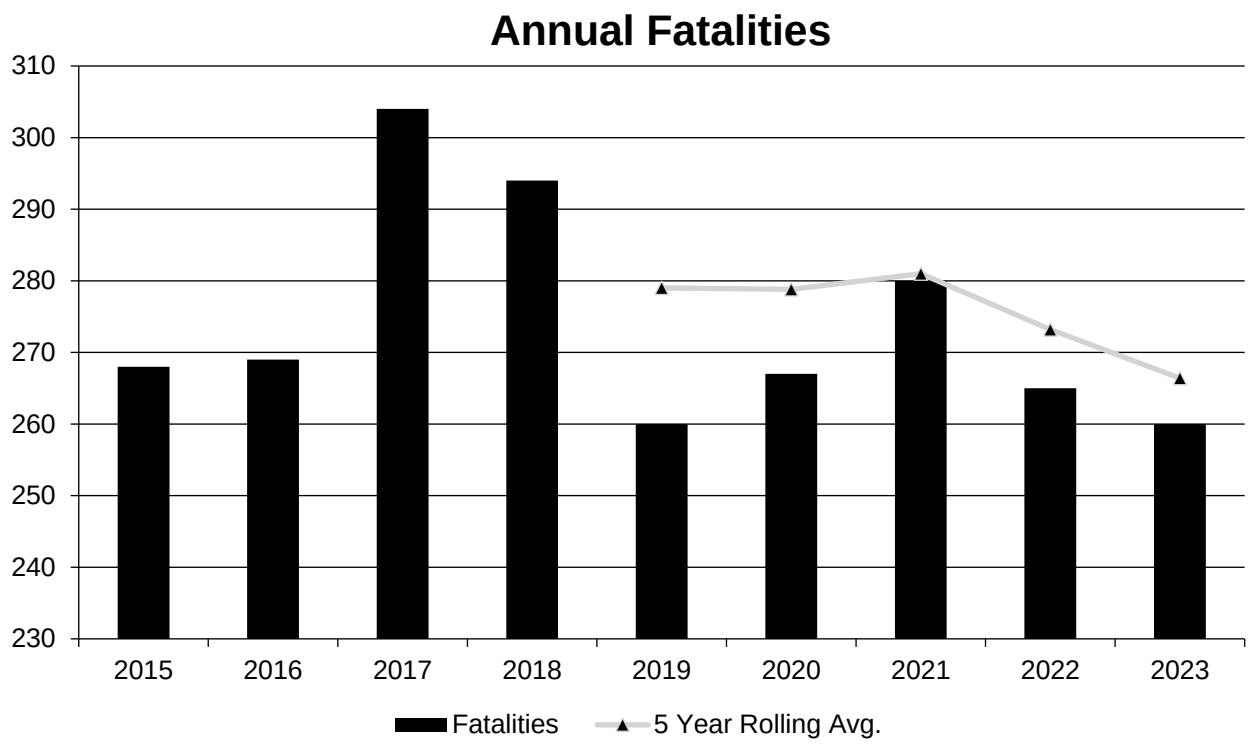
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
2024 D5 Guardrail Project (CON)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$631206	$631206	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Marshall Crosswalk +10	Pedestrians and bicyclists	Modify existing crosswalk	11	Intersections	$350000	$350000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	12,700	25	State Highway Agency	Spot	Pedestrians	
2024 D8 Guardrail Project (ENG)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$18000	$20000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
Marshall Pedestrian Signals +8	Pedestrians and bicyclists	Pedestrian signal	9	Intersections	$350000	$350000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	12,700	25	State Highway Agency	Spot	Pedestrians	
Parkway Rd - Davis Cr Lighting (CON)	Lighting	Continuous roadway lighting	11.73	Miles	$4401890	$4401890	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,300	65	State Highway Agency	Spot	Roadway Departure	
2024 Jefferson HFST +1	Roadway	Pavement surface – high friction surface	0.42	Miles	$357617	$397352	HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	1,800	45	State Highway Agency	Spot	Roadway Departure	
Flowing Springs Exit Lighting (CON)	Lighting	Intersection lighting	1	Intersections	$399439	$399439	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,700	60	State Highway Agency	Spot	Intersections	
2024 D4 Guardrail Project (CON)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$468167	$468167	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D8 Guardrail Project (CON)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$491210	$491210	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 D9 Guardrail Project (CON)	Roadside	Barrier end treatments (crash cushions, terminals)	1	District	$498885	$498885	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
2024 Skid Testing	Miscellaneous	Data collection	1	Statewide	$160000	$200000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	

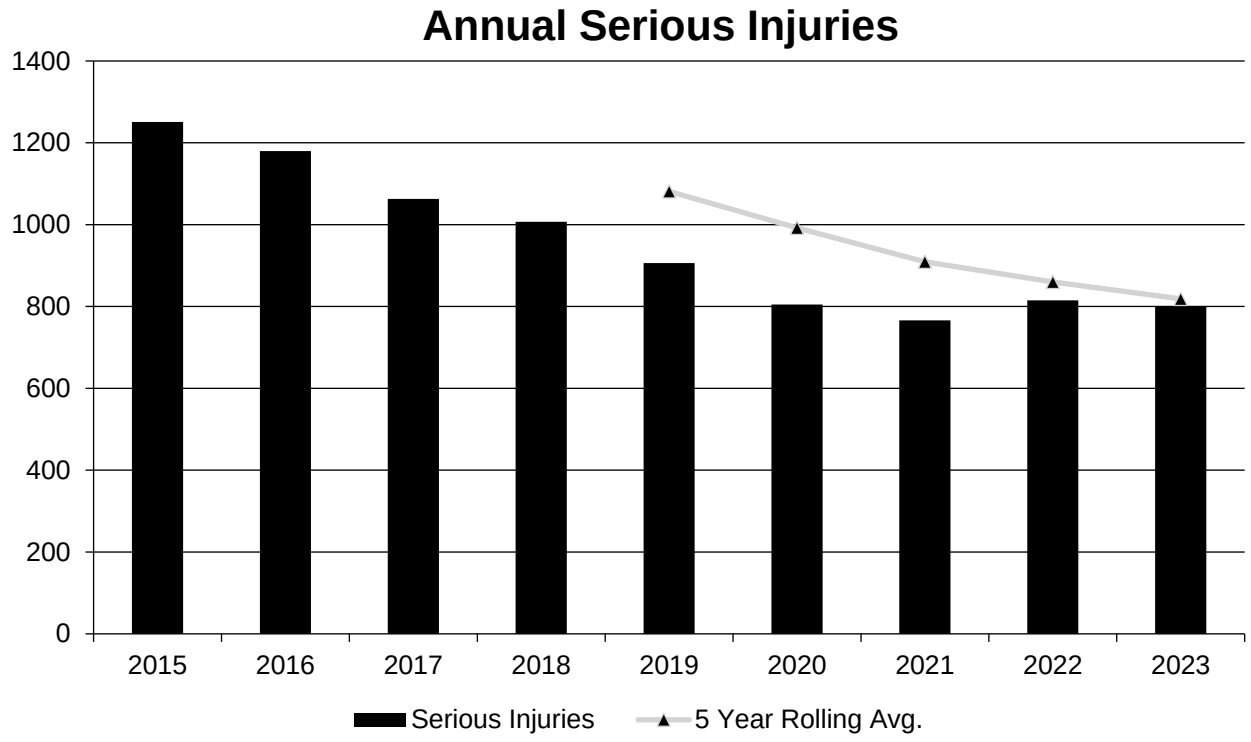
Safety Performance

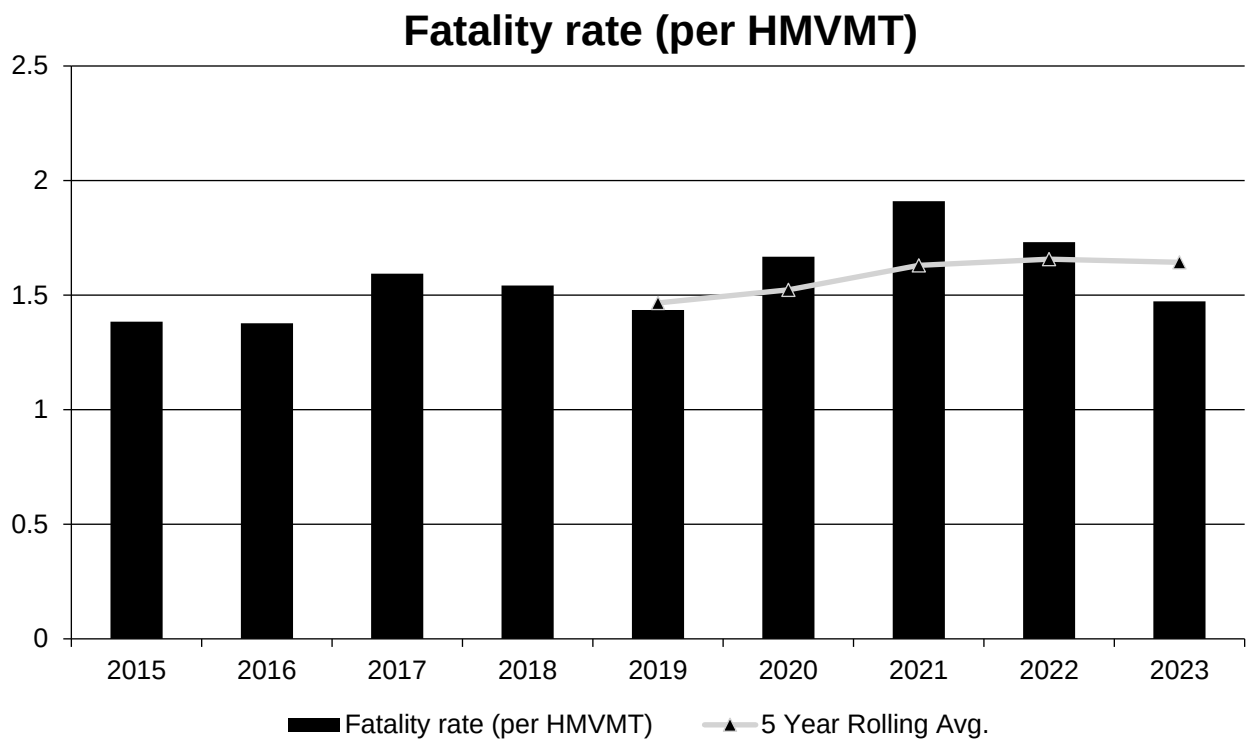
General Highway Safety Trends

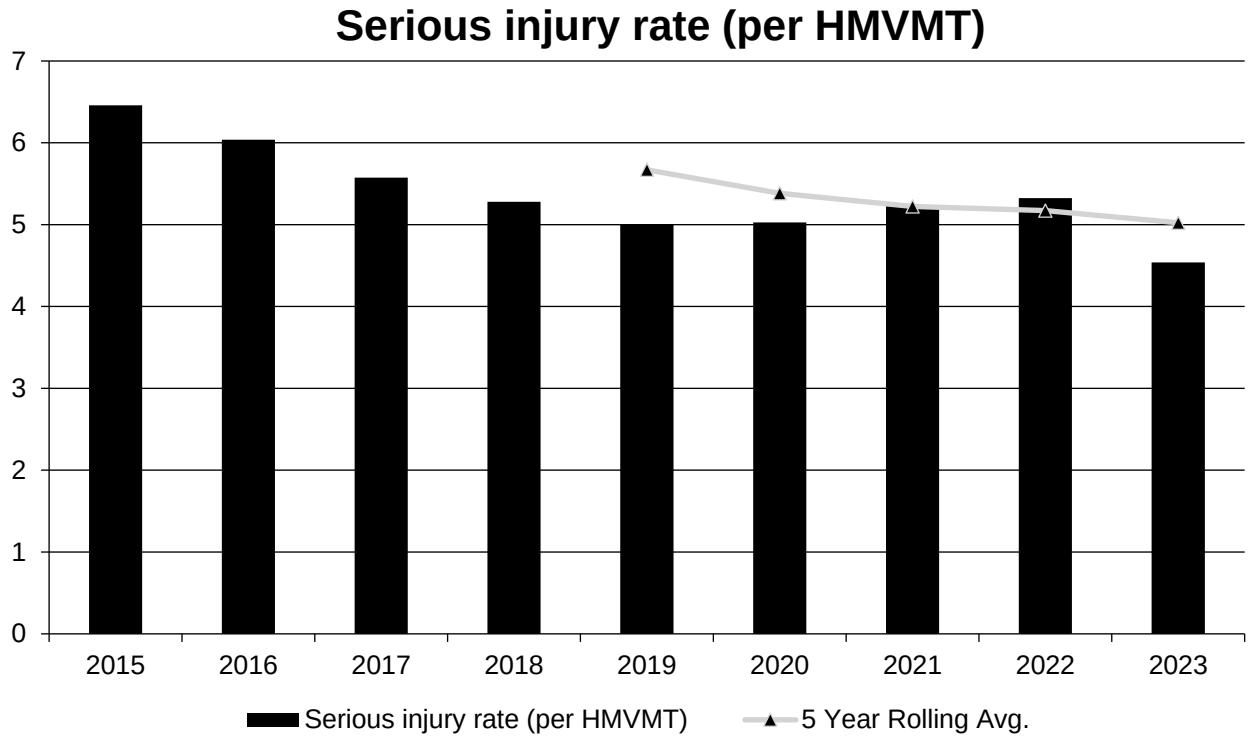
Present data showing the general highway safety trends in the State for the past five years.

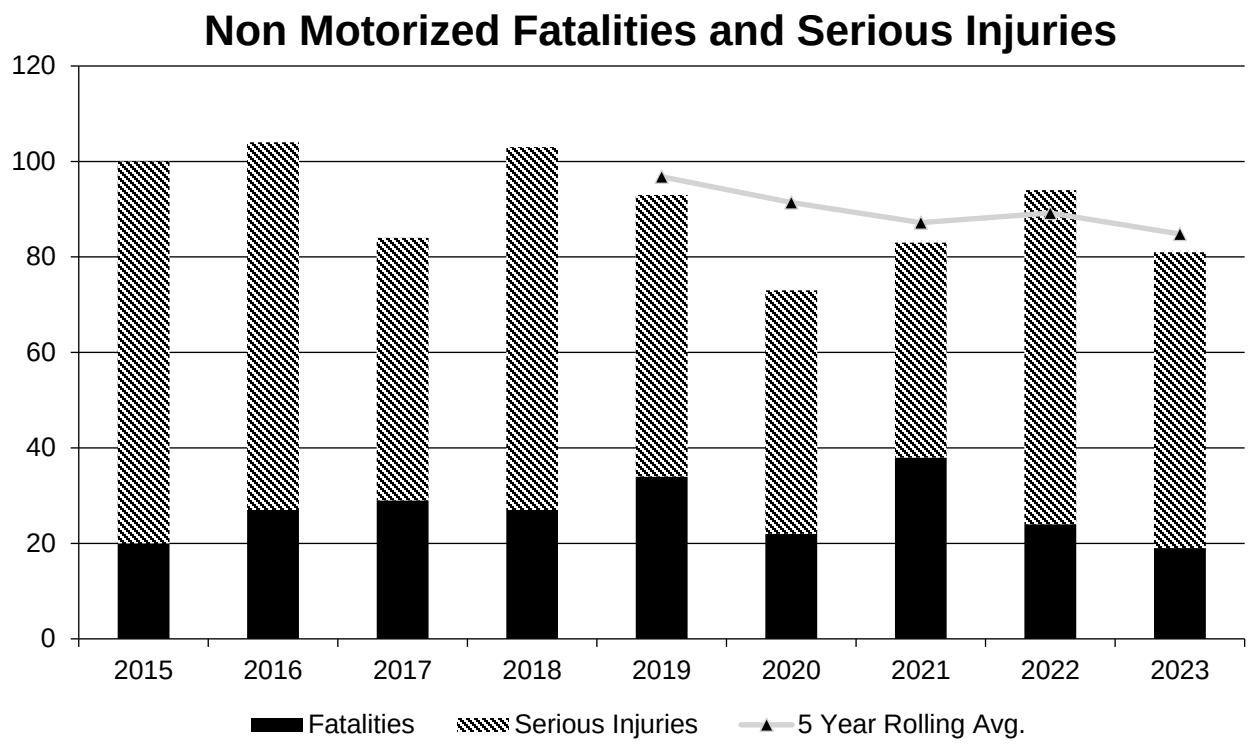
PERFORMANCE MEASURES	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fatalities	268	269	304	294	260	267	280	265	260
Serious Injuries	1,251	1,180	1,063	1,007	906	805	766	815	801
Fatality rate (per HMVMT)	1.384	1.377	1.594	1.542	1.435	1.668	1.910	1.731	1.473
Serious injury rate (per HMVMT)	6.459	6.039	5.574	5.280	5.000	5.028	5.226	5.324	4.538
Number non-motorized fatalities	20	27	29	27	34	22	38	24	19
Number of non-motorized serious injuries	80	77	55	76	59	51	45	70	62


Annual Fatalities
310
300
290
280
270
260
250
240
230
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
1400
1200
1000
800
600
400
200
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
2.5
2
1.5
1
0.5
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
7
6
5
4
3
2
1
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Describe fatality data source.

FARS

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

Year 2023

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	14.2	27.2	0.85	1.55
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - Other	34.4	85.4	1.64	4.08
Rural Minor Arterial				
Rural Minor Collector	7.4	20.8	4.06	10.33
Rural Major Collector	55.2	144.8	3.8	8.61
Rural Local Road or Street	18.2	59.8	2.2	7.33
Urban Principal Arterial (UPA) - Interstate	13.6	39.4	0.45	1.28
Urban Principal Arterial (UPA) - Other Freeways and Expressways	1.4	2.6	1.11	2.48
Urban Principal Arterial (UPA) - Other	26.6	92	12.5	34.8
Urban Minor Arterial	23.8	97.2	1.41	5.78
Urban Minor Collector	0.4	1.4	1.78	6.81
Urban Major Collector	10.2	35.6	1.4	4.81
Urban Local Road or Street	3.2	17.6	0.74	3.84

Year 2023

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	250	770.4	1.58	4.83
County Highway Agency				
Town or Township Highway Agency				
City or Municipal Highway Agency	9.8	46.6	3.39	15.39
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency	6.6		140.6	
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2025 Targets *

Number of Fatalities:259.2

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

West Virginia's SHSP established the overall goal of achieving zero fatalities by the year 2050 from 2021.

Number of Serious Injuries:784.7

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

West Virginia SHSP established the overall goal of 66% reduction in serious injuries by the year 2050 from 2021.

Fatality Rate:1.542

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

West Virginia's SHSP established the overall goal of achieving zero fatalities by the year 2050 from 2021.

Serious Injury Rate:4.661

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

West Virginia's SHSP established the overall goal of 66% reduction in serious injuries by the year 2050 from 2021.

Total Number of Non-Motorized Fatalities and Serious Injuries:82.6

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

West Virginia's SHSP established the overall goal of 66% reduction in fatal and serious injuries by the year 2050 from 2021.

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

In the mid-1990's, various officials with highway safety responsibilities in West Virginia recognized the value of banding together to advance highway safety. This resulted in the creation of the State's first Highway Safety Management Task Force. After a brief hiatus, the renamed Safety Management Task Force (SMTF) reconvened in late 2001 and met regularly to coordinate highway safety-related activities and programs and allowed participants to speak with one voice for greater safety impacts. The Task Force continued this mission as more than 30 members provided oversight in the plan development, implementation, and evaluation of the State's current SHSP.

More than 50 members have been invited to provide oversight of the new SHSP, including plan development, implementation and evaluation. Members of the SMTF include the Division of Highways, Division of Motor Vehicles, Governor's Highway Safety Office, West Virginia State Police along with representative from local law enforcement agencies, Department of Education, Alcohol Beverage Control Administration, Office of the Insurance Commissioner, West Virginia Parkways Authority, West Virgnia Association of Metropolitan Organizations, West Virginia Commission of Drunk Driving Prevention, Federal Highway Administration, Federal Motor Carrier Safety Administration, National Highway Traffic Safety Administration and many more highway safety minded agencies, organization and commissioners.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2023 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	262.1	266.4
Number of Serious Injuries	854.8	818.6
Fatality Rate	1.692	1.643
Serious Injury Rate	5.972	5.023
Non-Motorized Fatalities and Serious Injuries	74.9	84.8

West Virginia met three out of five of the State's safety performance target in 2023 - number of serious injuries, fatality rate, and serious injury rate. The State made significant progress toward the other two safety performance targets - number of fatalities and non-motorized fatalities and serious injuries. The five-year average for number of fatalities and non-motorized fatalities and serious injuries was 266.4 and 84.8 and the target was 262.1 and 74.9.

Applicability of Special Rules

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

Yes

Does the VRU Safety 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	2017	2018	2019	2020	2021	2022	2023
Number of Older Driver and Pedestrian Fatalities	43	65	43	57	63	56	42
Number of Older Driver and Pedestrian Serious Injuries	104	117	95	98	90	103	124

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.

West Virginia has focused on Road Departure with its HSIP since it has the best chance of reducing the fatality and injury rates. In addition to road departure crashes, West Virginia's current SHSP provides the opportunity to focus on speeding and aggressive driving, occupant protection, older driver, alcohol and drug impaired, intersection and pedestrians.

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

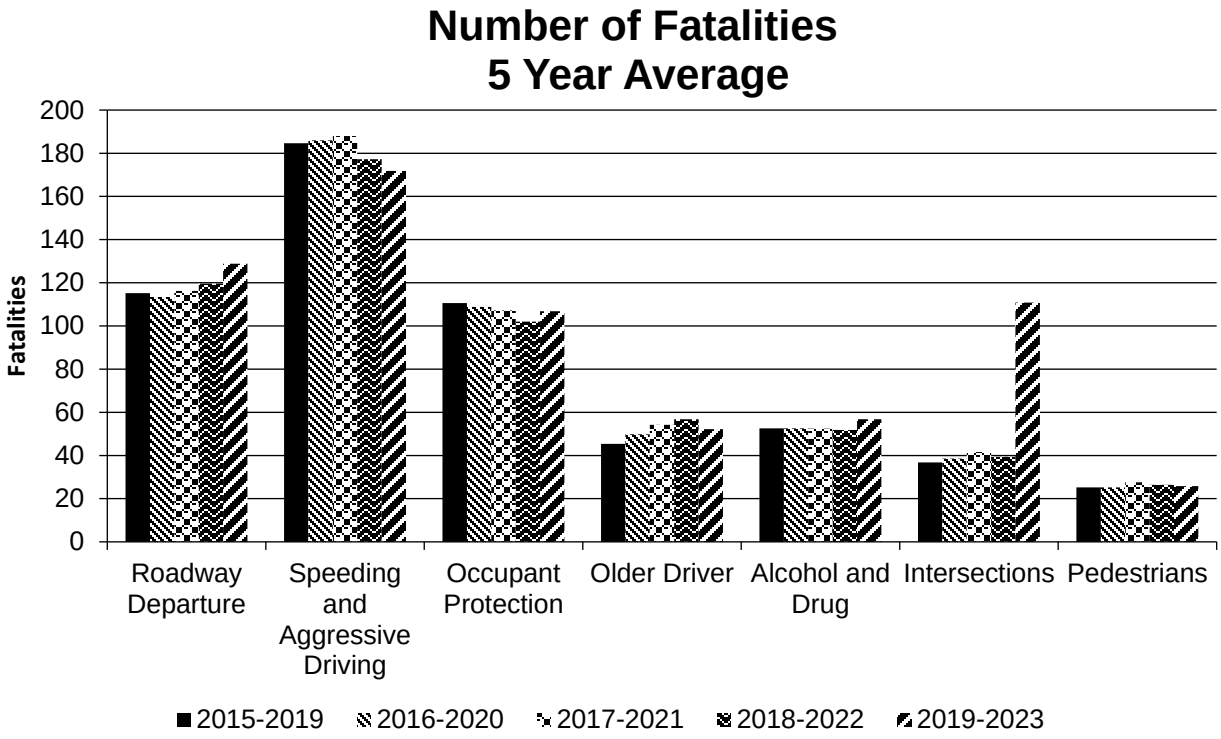
- HSIP Obligations
- More systemic programs

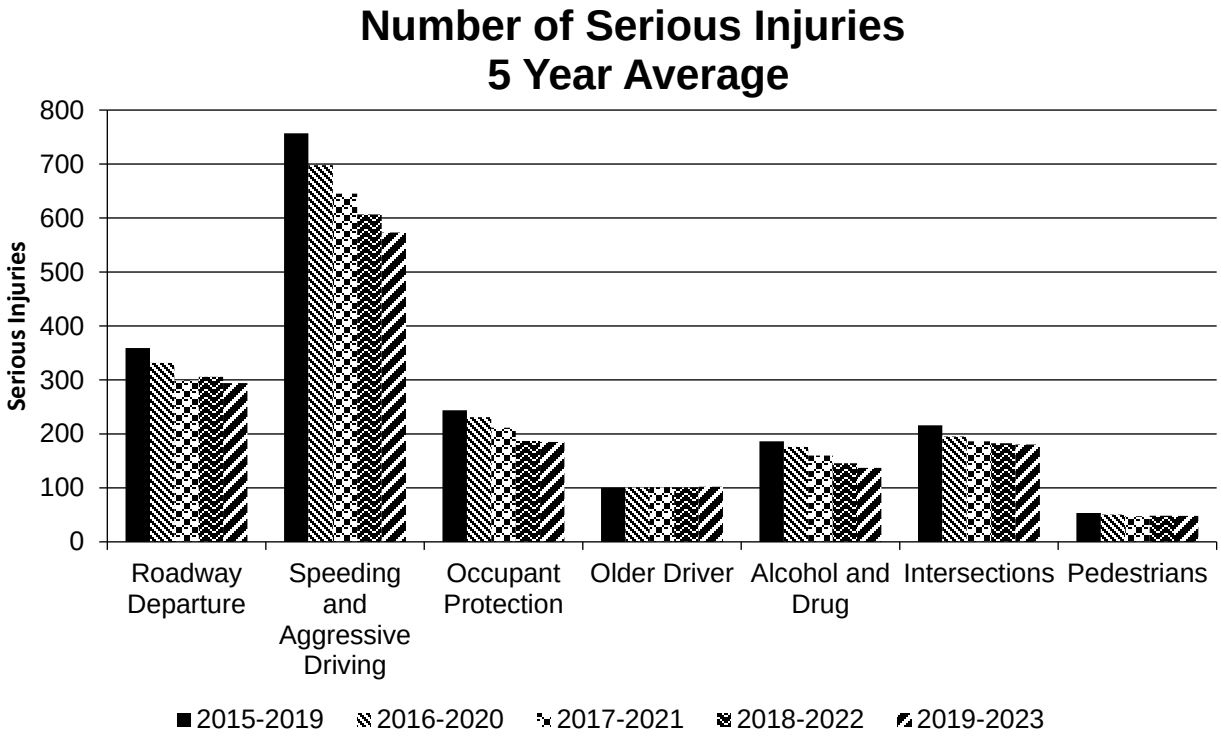
Effectiveness of Groupings or Similar Types of Improvements

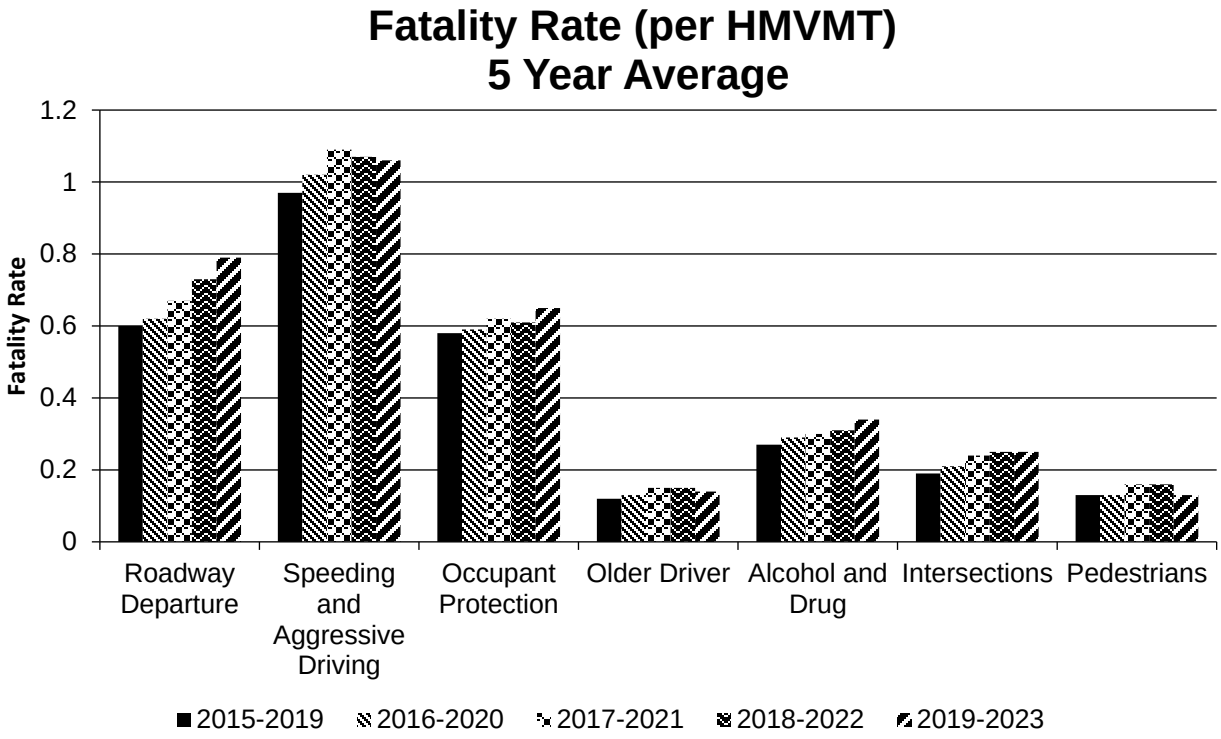
Present and describe trends in SHSP emphasis area performance measures.

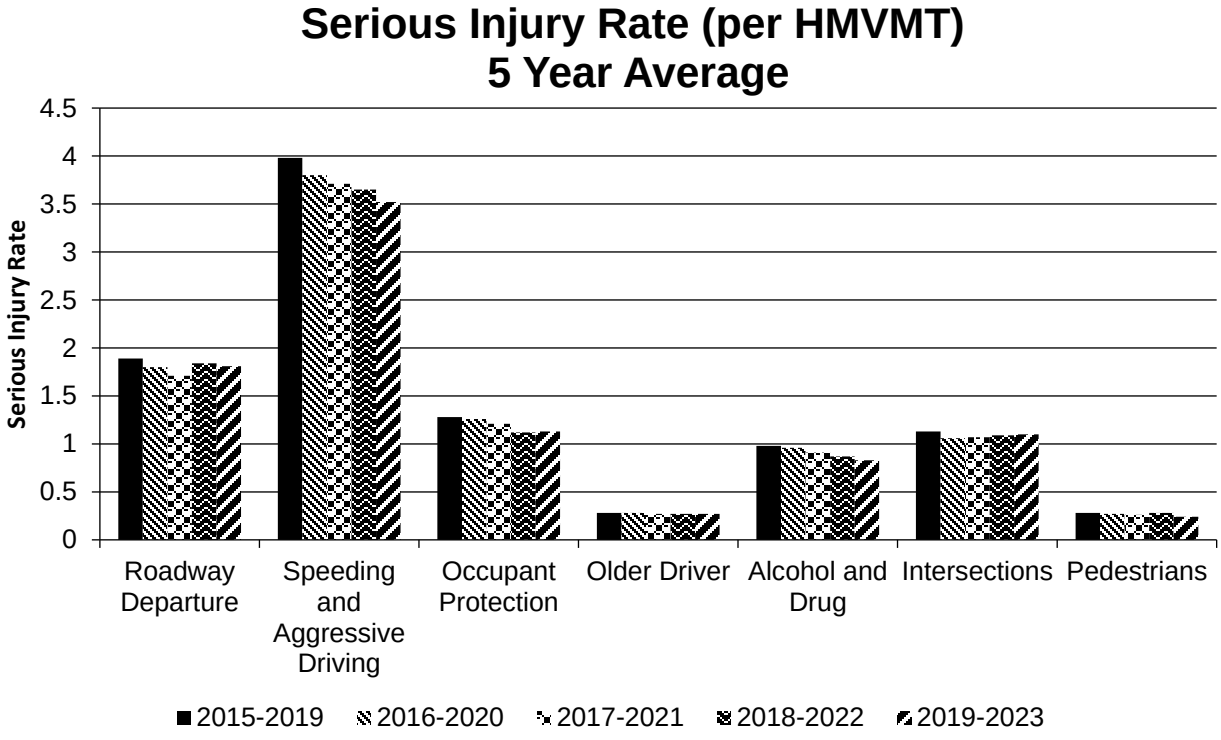
Year 2023

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		128.8	294.2	0.79	1.81
Speeding and Aggressive Driving		171.8	573.2	1.06	3.52
Occupant Protection		106.8	185	0.65	1.13
Older Driver		52.2	102	0.14	0.27
Alcohol and Drug		56.8	137.2	0.34	0.83
Intersections		110.8	180.4	0.25	1.1
Pedestrians		25.8	48	0.13	0.24


Number of Fatalities
5 Year Average
Fatalities
200
180
160
140
120
100
80
60
40
20
0
Roadway Departure
Speeding and Aggressive Driving
Occupant Protection
Older Driver
Alcohol and Drug
Intersections
Pedestrians
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Number of Serious Injuries
5 Year Average
Serious Injuries
800
700
600
500
400
300
200
100
0
Roadway Departure
Speeding and Aggressive Driving
Occupant Protection
Older Driver
Alcohol and Drug
Intersections
Pedestrians
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Fatality Rate (per HMVMT)
5 Year Average
Fatality Rate
1.2
1
0.8
0.6
0.4
0.2
0
Roadway Departure
Speeding and Aggressive Driving
Occupant Protection
Older Driver
Alcohol and Drug
Intersections
Pedestrians
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Serious Injury Rate (per HMVMT)
5 Year Average
Serious Injury Rate
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Roadway Departure
Speeding and Aggressive Driving
Occupant Protection
Older Driver
Alcohol and Drug
Intersections
Pedestrians
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023

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)
Marion/Monongalia County I-79	Urban Principal Arterial (UPA) - Interstate	Roadside	Barrier – cable	447.00	99.00	3.00	3.00	14.00	3.00	115.00	31.00	579.00	136.00	
Jackson/Wood County I-77	Rural Principal Arterial (RPA) - Interstate	Roadside	Barrier – cable	274.00	63.00	2.00	1.00	20.00	2.00	76.00	14.00	372.00	80.00	
Kanawha County I64/I-77	Urban Principal Arterial (UPA) - Interstate	Roadway	Pavement surface – high friction surface	125.00	28.00			1.00		27.00	4.00	153.00	32.00	
Raleigh County I-64	Urban Principal Arterial (UPA) - Interstate	Lighting	Interchange lighting	17.00	3.00	1.00				5.00	1.00	23.00	4.00	
Wood County WV 14	Urban Principal Arterial (UPA) - Other	Lighting	Intersection lighting	2.00	2.00					1.00		3.00	2.00	
Hancock County US 30	Rural Minor Arterial	Roadway	Pavement surface – high friction surface	5.00	1.00			1.00		1.00		7.00	1.00	
Monongalia County US 19	Urban Principal Arterial (UPA) - Other	Lighting	Continuous roadway lighting	69.00	19.00			1.00		22.00	4.00	92.00	23.00	
Kanawha County I-77	Rural Principal Arterial (RPA) - Interstate	Lighting	Interchange lighting	40.00	9.00				1.00	10.00	2.00	50.00	12.00	

Compliance Assessment

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

06/30/2022

What are the years being covered by the current SHSP?

From: 2022 To: 2026

When does the State anticipate completing its next SHSP update?

2027

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									
	Route/Street Name (9) [9]	100									
	Federal Aid/Route Type (21) [21]	100									
	Rural/Urban Designation (20) [20]	100						100			
	Surface Type (23) [24]	100	20					100	40		
	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									
	Direction of Inventory (18) [18]	100									
	Functional Class (19) [19]	100						100		100	

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	80									
	Access Control (22) [23]	100									
	One/Two Way Operations (91) [93]	100									
	Number of Through Lanes (31) [32]	100						100			
	Average Annual Daily Traffic (79) [81]	100						100			
	AADT Year (80) [82]	100									
	Type of Governmental Ownership (4) [4]	100						100	100	100	100
INTERSECTION	Unique Junction Identifier (120) [110]			99	99						
	Location Identifier for Road 1 Crossing Point (122) [112]			99	99						
	Location Identifier for Road 2 Crossing Point (123) [113]			99	99						
	Intersection/Junction Geometry (126) [116]			90	20						
	Intersection/Junction Traffic Control (131) [131]			80							
	AADT for Each Intersecting Road (79) [81]			70							
	AADT Year (80) [82]			70							
	Unique Approach Identifier (139) [129]			99	50						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100					
	Location Identifier for Roadway at					100					

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100					
	Ramp Length (187) [177]					100					
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100					
	Roadway Type at End Ramp Terminal (199) [189]					100					
	Interchange Type (182) [172]					100					
	Ramp AADT (191) [181]					100					
	Year of Ramp AADT (192) [182]					100					
	Functional Class (19) [19]					100					
	Type of Governmental Ownership (4) [4]					100					
Totals (Average Percent Complete):		**98.89**	**17.78**	**88.25**	**45.88**	**100.00**	**0.00**	**100.00**	**48.89**	**100.00**	**80.00**

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

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

Based on the Safety Data Assessment performed in 2018, West Virginia ranked low in data quality and collection for the Model Inventory of Roadway Elements (MIRE). As such, West Virginia has been selected as a pilot or focus state allowing for additional technical assistance. West Virginia staff has participated in a peer exchange and is developing a plan to prioritize key data element definitions and collections. Our Strategic Data Management and Technology Division as the Roadway Inventory manager and the Traffic Engineering Division as the primary user in managing highway safety analysis are coordinating to ensure the MIRE FDE fully meets or exceeds the national standard. In 2023, a MIRE committee was formed to help ensure West Virginia meets the requirements to have complete access to the MIRE FDE on all public roads.

Optional Attachments

Program Structure:

WV HSIP Process.docx
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.