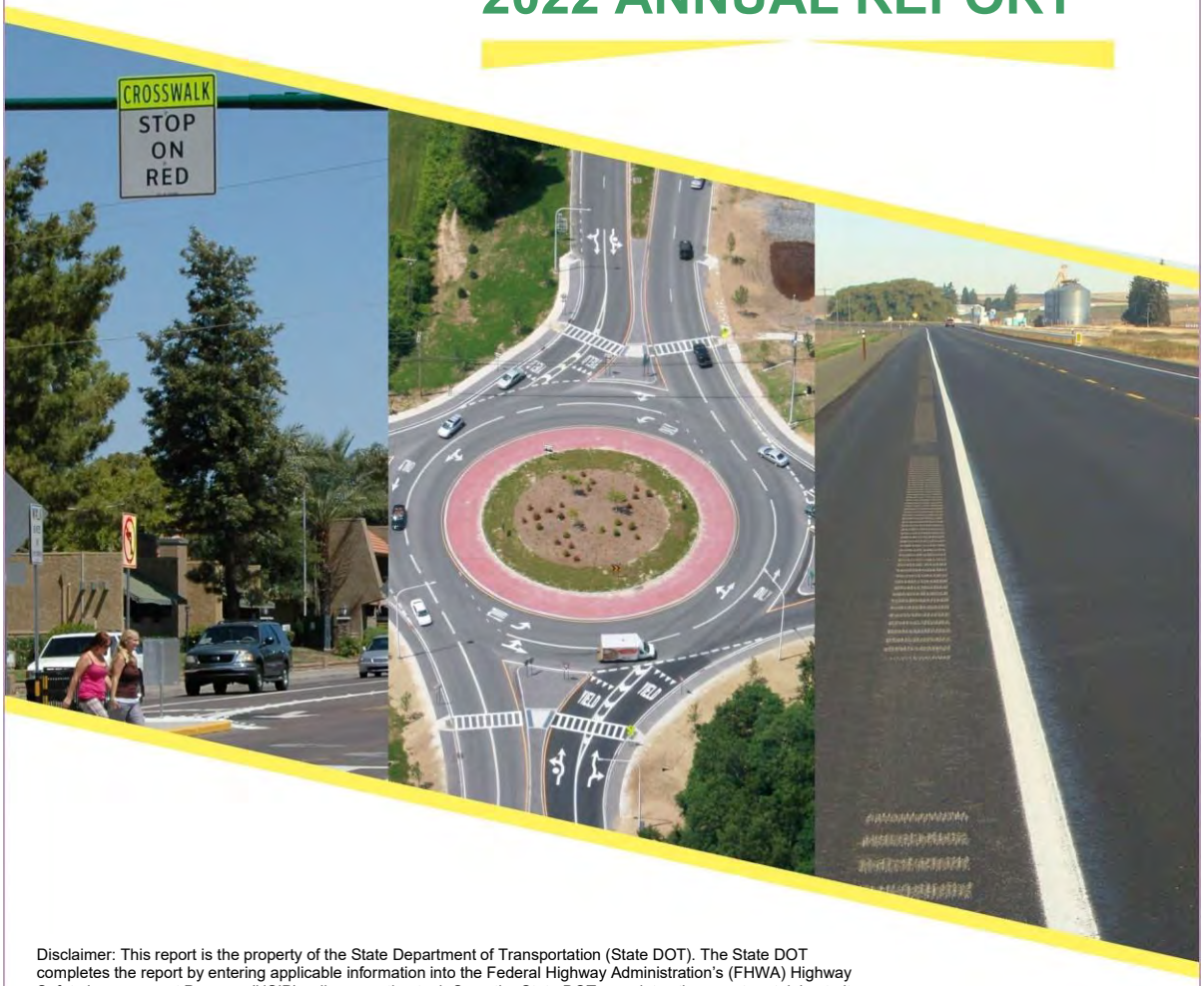
NEVADA

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 Nevada Highway Safety Improvement Program (HSIP) report for 2022 summarizes the activities of the Nevada Department of Transportation's HSIP as required by Infrastructure Investment and Jobs Act (IIJA)(Public Law 117-58, also known as the "Bipartisan Infrastructure Law" (BIL)). The BIL continues the HSIP to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance regulated under Part 924 of Title 23, Code of Federal Regulations (23 CFR Part 924).

Available program funds for the purpose of this report are considered to be those funds obligated during the 2022 Federal Fiscal Year. The activities of the Nevada Department of Transportation (NDOT) are primarily designed to develop safety improvement projects for data driven improvements identified by crash data and systemic solutions, which include, but not limited to: high crash locations (intersections and roadway segments), systemic safety improvements, pedestrian related safety improvements, and rural lane departure crash mitigation.

The crash data on all public roadways contained in this report is extracted from the Nevada Citation and Accident Tracking System (NCATS) and Enforcement Mobile crash databases and prepared for NDOT Traffic Safety Engineering's analysis as a normalized view. After the crash data is downloaded from the NCATS and Enforcement Mobile databases, it is processed through geolocation software and is linearly referenced to the statewide street centerline data. The geolocation software tools automate the cleanup of location attributes and assign a spatial location to the crash data through a series of database procedures.

NDOT Traffic Safety Engineering launched a project to support all local agencies using NDOT Local Public Agency (LPA) process that helps locals access HSIP funds for data driven projects. Local agencies can support this process by working with NDOT and the FHWA to develop a Local Road Safety Plan tailored to the needs in each community.

NDOT Traffic Safety Engineering has partnered with The Timmons Group to improve the data transfer process and Crash Locating System. The crash data will be received directly from the vendor and stored in a new crash database. This new crash database will have an improved schema that will include new data fields and optimize the workflow within the section. The Timmons Group is also building a replacement to the outdated and troublesome Locator App currently used to locate crashes spatially. This new Database and Locator App will greatly reduce the time it takes to have spatial data located. This will increase the most recently available crash data to be used in analysis.

The HSIP program is administered by the NDOT Traffic Safety Engineering division. The methods used by the Traffic Safety Engineering section to identify, select, implement, and evaluate safety improvement projects have been compiled in the NDOT's HSIP Manual. A copy of the current updated NDOT HSIP Manual and other information can be found on the NDOT website at https://www.dot.nv.gov.

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

The HSIP program is managed by the NDOT Traffic Safety Engineering Team. The team is located in the Planning Division of NDOT.

Where is HSIP staff located within the State DOT?

Planning

How are HSIP funds allocated in a State?

- SHSP Emphasis Area Data

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

NDOT Traffic Safety Engineering coordinated with Nye County and FHWA to complete Nevada's first Local Road Safety Plan (LRSP). The plan determined Emphasis Areas and identified potential Safety Projects for the county. NDOT Traffic Safety Engineering has three consultant teams to help all interested locals develop a LRSP to support Local Road Safety. The City of North Las Vegas is working with NDOT to develop a LRSP. NDOT Traffic Safety Engineering is working with other local and tribal agencies to develop LRSP for their communities.

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.

NDOT Traffic Safety Engineering coordinates with the NDOT Planning on a regular basis. Traffic Safety Engineering provides safety improvement guidance and review to the Planning team as projects develop. Traffic Safety Engineering recommends safety improvements for projects in the early stage of development and has supported the One Nevada Transportation Plan for prioritizing projects statewide. The One Nevada Transportation Plan can be found at https://www.dot.nv.gov/projects-programs/road-projects/onenvplan .

NDOT Traffic Safety Engineering is frequently interacting with the NDOT Engineering Division. The Roadway Design and Project Management team are developing plans and specifications to make recommendations from recent Safety Management Plans (SMPs), RSAs, and local planning documents a reality. Engineering teams participate at all levels, ranging from preliminary field design surveys, pre-design, intermediate design, final design, and construction support.

NDOT Traffic Safety Engineering coordinates with Roadway Design to share the latest safety strategies and provide guidance for safety improvement ideas. This includes the utilization of Strategic Highway Safety Plan (SHSP) strategies, Highway Safety Manual (HSM) tools, and other federal guidelines. Traffic Safety Engineering coordinates with the Roadway Design Scoping Section to initiate and recommend safety improvements on projects during the Scoping Phase.

NDOT Traffic Safety Engineering works with the NDOT District offices to understand locations of concerns. Once the concerns are identified, Traffic Safety Engineering can support the district construction and maintenance teams as they build and maintain safe NDOT infrastructure. NDOT District Operations and Maintenance teams participate in RSAs, SMPs, and miscellaneous field inspections.

NDOT Traffic Safety Engineering collaborates with NDOT Traffic Operations when developing and implementing safety projects. Collaboration includes signal design, lighting design, operational analysis of roadway segments and intersections, and the development and discussion of safety strategies, methodologies and guidelines. Traffic Safety Engineering and Traffic Operations have partnered on the Traffic Incident Management (TIM) program and several interim approval projects with the FHWA. The TIM program has a primary goal of reducing fatalities and serious injuries from secondary crashes. Current interim approval projects include Wrong Way Driver systems with red flashing lights and Rapid Rectangular Flashing Beacon (RRFB) pedestrian crossing enhancements.

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)
- Tribal Agency
- Other-Emergency Medical Services

Describe coordination with external partners.

NDOT Traffic Safety Engineering partners with the Nevada Department of Public Safety Office of Traffic Safety (DPS-OTS) on the development of the SHSP, the Critical Emphasis Areas (CEAs) identified in the SHSP, the CEA Task Force Committees, and the Zero Fatalities Initiative. DPS-OTS is NDOT Traffic Safety Engineering's primary behavioral partner. DPS-OTS serves as Nevada's Governors Highway Safety Office. The NDOT

Traffic Safety Engineering and DPS-OTS work together as defined in the SHSP. The teams share crash data and work together to ensure that safety messages reach road users in the State of Nevada. DPS-OTS and NDOT Traffic Safety share goals that are used to develop SHSP and HSIP Performance Measures.

NDOT Traffic Safety Engineering coordinates with the University of Nevada Reno (UNR) and the University of Las Vegas (UNLV) for research projects. Current projects include Traffic Data Collection and an Urban Street Lighting study. The UNLV School of Medicine maintains two (2) crash trauma databases.

NDOT Traffic Safety Engineering team partners with the FHWA. Team members share knowledge with the FHWA by attending webinars, peer-to-peers, and workshops. Traffic Safety Engineering and Traffic Operations leadership meets with the FHWA on a regular basis to discuss the HSIP, interim approval programs, and upcoming plans. The NDOT HSIP team works with the FHWA representative to ensure that any updates in HSIP procedures or best practices are shared and documented.

Representatives from Local Government Agencies partner with the HSIP team by attending the annual Safety Summit hosted by NDOT, contribute and partner with SMP's and participate as team members in the SHSP Task Forces.

NDOT Traffic Safety works with and seeks input from a variety of regional planning organizations, including, but not limited to the Southern Nevada Regional Transportation Commission (RTC), RTC of Washoe County, Carson Area Metropolitan Planning Organization (CAMPO), and Tahoe Regional Planning Authority (TRPA). These organizations are encouraged to attend the Safety Summit, contribute to SMPs, RSAs, and serve as members of SHSP Task Forces.

Representatives from Law Enforcement Agencies and Emergency Medical Services support and participate in the Nevada Safety Summit, contribute to SMPs, RSAs, and serve as members of the SHSP Task Forces and TIM Collation.

Tribal Agency projects are generated by the RSA process or through tribal planning priorities. Projects are developed and executed with tribal input.

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

Nevada published the 2021-2025 SHSP in early 2021. The SHSP defines the ongoing commitments of the Nevada Safety Team. The SHSP establishes statewide goals and strategies focusing on the 6 "Es" of traffic safety: Equity, Engineering, Education, Enforcement, Emergency Medical Services/Emergency Response/Incident Management, and Everyone.

The 81st session of the Nevada Legislature created the Nevada Advisory Committee on Traffic Safety (NVACTS) with the approval of Assembly Bill No. 54 (AB54). NVACTS is the executive committee the oversees the Nevada SHSP and the Traffic Records Coordination Committee (TRCC). This bill builds on the group formally known as the Nevada Executive Committee on Traffic Safety (NECTS). NVACTS submitted their first report to the Nevada Legislature in June 2022.

The SHSP team coordinated the 2021 Nevada Traffic Safety Summit. The summit was a two-and-a-half-day event held in person at the Palace Station Hotel and Casino in Las Vegas, Nevada on October 19th, 20th, and 21st. The 2021 Summit started with workshops: Nevada Traffic Incident Management (TIM) Responder Training, Child Passenger Safety 101, Joining Forces Emotional Survival, and Crash Reconstruction: Hands on Demonstration-Mass Casualty Incident. The 2nd day kicked off with a Welcome Session followed by nine breakout sessions, which included: The Future is Now: What's New with Emerging Technologies, Impaired Driving: Navigating the Changing Landscape, Fast and Furious: Let's Talk About Speed, Traffic Safety

Communication: Listen, Learn, Action, Vulnerable Road Users: Walking and Biking to Zero Fatalities, Judicial Outreach and Communications, Safer Drivers and Passengers: Are We There Yet?, Equity: Improving Safety for Everyone, and Engineering Safer Roads. The 3rd day addressed Key Takeaways from the 2021 Nevada Legislative Session and a Legislative Panel Discussion.

The SHSP team is currently planning the 2022 Nevada Traffic Safety Summit. The Summit will be held October 19th and October 20th at the Nugget Casino Resort in Sparks, Nevada. The 2022 Summit is scheduled to be a two day, in person event.

Nevada is revitalizing it RSA program. The Covid-19 Pandemic forced changes and the department responded. NDOT Traffic Safety Engineering has hosted and completed its first virtual RSA. This virtual process included a field review and data collection by the NDOT Traffic Safety Engineering including field observations, videos of both daytime and nighttime driving views of the RSA corridor, and pictures of the major intersections. This data, coupled with crash data analysis and maps exhibiting crash severity, crash types, and driver factors for the RSA's have been created and shared with the multidisciplinary and multi-agency RSA Stakeholder Team to review prior to the virtual RSA meeting. The RSA Stakeholder Team consisted of professionals from the City of Sparks Public Works, NDOT, Nevada Highway Patrol, Regional Transportation Commission (RTC), REMSA, Truckee Meadows Fire, Washoe County, Washoe County School District-Transportation, and Washoe County School Police. Two virtual meetings were held to allow the stakeholders time to review and to submit comments. The RSA Stakeholders were encouraged to drive and observe the corridor, either virtually or in person. All comments were collected in a comment matrix and reviewed and approved by the RSA Stakeholder Team as the NDOT Traffic Safety Engineering team developed the RSA report documents and final report. This process aligns with Technical Report No. FHWA-SA-21-025 "Preparing for a Virtual Road Safety Audit (RSA)" published in December 2020.

NDOT Traffic Safety Engineering is updating the RSA database so that the RSA recommendations can be found in one central file. The database will be used as a design and planning resource for internal and external projects. The RSA database will include all current and historic RSA information and is expected to be fully populated by winter of 2022-2023.

NDOT Traffic Safety Engineering works with other NDOT teams to perform engineering studies in support of the SHSP. Current studies include "A Data-Driven Approach to Implementing Wrong-way Driving Countermeasures" where NDOT has installed red Rapid Rectangular Flashing Beacon's (RRFB's) on several off-ramps. This study is conducted under an interim agreement with the FHWA (4(09)-56 (E) - Red Rectangular Rapid Flashing Beacons on Exit Ramps – Nevada DOT). As of June 30, 2022, there has been a 78% confirmed turnaround due to installation of these devices. As part of this interim agreement, NDOT manages a multidisciplinary team led by NDOT Traffic Safety Engineering and NDOT Traffic Operations to study the effectiveness of these systems, and to submit semi-annual progress reports and a final evaluation report at the end of the experiment. The study will evaluate wrong-way driver systems that are MUTCD compliant and compare the data collected. The study has been completed and is currently in the evaluation stage.

NDOT Traffic Safety Engineering has been working with a consultant team to develop a data driven approach to identify and prioritize locations for passing and climbing lanes throughout Nevada. The prioritization is in progress with an expected completion date in the Winter of 2022. Once this is developed, Traffic Safety Engineering will work with the NDOT team to design, bid, and build these projects.

Safety Management Plans are safety focused corridor studies intended to reduce the number of crashes on Nevada roadways. The NDOT Traffic Safety Engineering team identifies corridors on arterial roads statewide to implement safety improvements. Two SMP locations have been selected in this reporting period. Locations were identified through the NDOT network screening process. The first is in Reno, Nevada on South Virginia Street from SR-431/SR-341 (Geiger Grade/Mt Rose Highway) to East Patriot Boulevard. The second is in Las Vegas, Nevada on SR-592 (East Flamingo Road) from South Paradise Road to South Pecos Road. Both

SMPs are on state-systems and are safe systems focused. SMP typically take one year to complete. The SMPs in this reporting period are expected to be completed in late 2023/early 2024. The design phase is expected to start in 2024.

SMP's evaluate the needs of all modes of transportation and make recommendations for future projects. The purpose of a SMP is to conduct a safety focused corridor study aimed at all road users and to include collaboration with stakeholders and the public. A SMP includes the development of short and long-range transportation safety improvement projects that incorporate relevant studies, access management principles, public and stakeholder input, crash and capacity analyses, benefit/cost analysis, and other impacts to all road users. A Technical Advisory Committee (TAC) is created to help with the development of the SMP and to ensure that the plan was consistent with the needs of the many different stakeholders along the project corridor. The SMP process is consistent with the Nevada SHSP goal of reducing the number of fatalities and serious injuries on Nevada's roadways. The SMP process additionally uses the Safe System Principles to produce a safety focused corridor study.

The Speed Management Action Plan (SMAP) published June 2022 characterizes Nevada's speeding-related safety problems and speed management issues; identifies appropriate engineering, enforcement, and educational countermeasures and strategies; and outlines actions that the Nevada Department of Transportation (NDOT) and partner agencies can take to implement these strategies to reduce speeding and speed-related fatal and serious injury crashes. This SMAP will facilitate coordination and cooperation among various agency stakeholders including planners, designers and managers, enforcement officials, public health practitioners, and policymakers to implement a sustainable speed management program, and to target the most cost-effective and feasible countermeasures where they will have the greatest safety benefits.

The safety goals of the SMAP are as follows:

- Reduce fatal and serious injury crashes in support of the Nevada Strategic Highway Safety Plan (SHSP)
- Incorporate the statewide speed management strategies and action items into the SHSP and track progress in the SHSP Action Tracking Tool
- Provide network screening guidance for agencies to determine areas of concern
- Improve compliance with speed limits and set target speed limits using the Countermeasures to Achieve Target Speed

Speed limit review, engineering, and design strategies, enforcement, and educational measures will be implemented through this SMAP. As mentioned, there are three basic approaches to implementation of strategies and countermeasures: proactive, comprehensive, and systematic:

- A **proactive approach** aims to foster creation of self-enforcing roadway designs appropriate to the land use and user needs (functions of the road) to reduce future speeding and injury risk. The approach aims to develop collaborative and consistent policies, procedures, and safety guidance in speed-limit setting and design for new projects and roadway improvements.

- The overarching objectives of the **comprehensive approach** are to seek community support for the program, coordinate various stakeholders and engage the community in setting and enforcing appropriate limits, and to complement and enhance the effectiveness of design and engineering measures with locally tailored communications and educational measures.

- A **systematic approach** is used to identify and coordinate treatment of existing speeding and speed-related safety problems with cost-effective countermeasures (engineering and enforcement-related measures), and to integrate this approach with other safety plans and safety focus areas.

Program Methodology

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

Yes

NDOT Traffic Safety Engineering will systematically review this manual and update as appropriate. A full update is to be completed in FFY 2023.

Select the programs that are administered under the HSIP.

- HRRR
- Intersection
- Local Safety
- Pedestrian Safety
- Rural State Highways
- Segments
- Wrong Way Driving
- Other-Safety Management Plans

Program: HRRR

Date of Program Methodology:10/22/2012

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	• Volume	• 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?

- Other-Priority Ranking

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
Other-Combining with other projects:3
Other-Systemic Improvements:1

Program: Intersection

Date of Program Methodology:3/9/1997

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	• Volume	• Functional classification

What project identification methodology was used for this program?

- Crash rate
- Other-Societal Cost normalized by AADT

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?

- Other-Priority Ranking

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:30
Other-combining with other projects with our traffic safety partners:20
Other-Societal costs per volume:50
Total Relative Weight:100

Program: Local Safety

Date of Program Methodology:11/4/2019

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	• Volume	• 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:50
Available funding:50

Program: Pedestrian Safety

Date of Program Methodology:3/15/2015

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?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes	• Other-Land Use Generators	• Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Other-Land Use Generator Matrix (see attached)

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?

- Other-Priority Ranking

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:30
Other-Combining with other projects being done by our traffic safety partners:20
Other-weight from land use generator matrix:50
Total Relative Weight:100

Program: Rural State Highways

Date of Program Methodology:10/22/2012

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?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes	• Volume	• 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?

- Other-Priority Ranking

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
Other-Combining with other projects being done by our traffic safety partners:3

Other-Systemic Improvements:1

Program: Segments

Date of Program Methodology:9/15/2015

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	• Volume	• Functional classification

What project identification methodology was used for this program?

- Crash rate
- Other-Societal cost per volume

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?

- Other-Priority Ranking

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:30
Other-Combining with other projects being done by our traffic safety partners:20
Other-Societal cost per volume:50
Total Relative Weight:100

Program: Wrong Way Driving

Date of Program Methodology:3/11/2020

What is the justification for this program?

- 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

- Volume

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?

No

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

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

Available funding:50
Other-Combined with other projects:50

Program: Other-Safety Management Plans

Date of Program Methodology:6/15/2016

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	• Volume	• Functional classification

What project identification methodology was used for this program?

- Crash rate
- Other-Societal Costs normalized by ADT

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?

- Other-Priority Ranking

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:30
Other-combining with other projects with our traffic safety partners:20
Other-Sociatal Cost per ADT:50
Total Relative Weight:100

What percentage of HSIP funds address systemic improvements?

0

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

Nevada includes systemic improvements in all projects. The improvements include signage, rumble strips, safety edge, guard rail upgrades, pavement/shoulder widening, and wrong way driving treatments.

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
- Other-Safety Management Plans

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

NDOT is continuously evaluating connected vehicle technologies and has participated in pilot projects focusing on V2I for winter operations and safety. We are currently transitioning from a DSRC/Cellular hybrid test corridor to a broader cellular based installation on applicable maintenance vehicles that is compatible with our upcoming AVL platform. Due to the absence of USDOT/OEM standards for connected vehicles, most of our current efforts for the public domain are focused on expanding our underlying enterprise grade communications backbone along Nevada's roadways. As part of our Smart Mobility Plan, this will provide a robust and redundant system capable is supporting a wide variety of connected technologies as they become available and are proven safe and effective. NDOT is also in the process of completing a statewide ITS and ATM Master Plan. Needs and solutions are being evaluated based on safety improvements and operational deficiencies. This process will evaluate new technology solutions as well as expanding current solutions such as Wrong Way Drivers (WWD) systems, Variable Speed Limit (VSL) corridors, wind and weather warning systems, and Advanced Traveler Information System (ATIS) devices.

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.

The Highway Safety Manual's process for Network Screening and Project Prioritization is used to help determine the priority of HSIP projects as well as the predictive methodologies. Project safety effectiveness is calculated by Highway Safety Manual processes.

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

Nevada did not trigger the HRRR Special Rule for the reporting period but continues its efforts on rural road safety. Nevada is working on a Passing and Climbing Lane study and continues its efforts to incorporate systemic proven countermeasures such as rumble strips, curve improvements, shoulder widening, slope flattening, and passing lanes into our HSIP program.

NDOT Traffic Safety Engineering and Traffic Operations is continuing to expand the TIM program throughout the state. The primary goal of the of the TIM program is to reduce fatalities and serious injuries from secondary crashes by providing coordination and education to all partners, including enforcement, and emergency services.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

Federal 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)	$14,115,944	$13,725,705	97.24%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$14,178,896	$14,178,896	100%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$3,032,973	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$0	$0	0%
Totals	$31,327,813	$27,904,601	89.07%

RHCP (for HSIP purposes)(23 W.S.C. 130(e)(2)) has obligations totaling ($381,561.40) due to final vouchers from previously obligated projects. This program will not allow me to input a negative value.

Penalty Funds (23 U.S.C. 146) had a negative value of (1,577,361) which was obligated towards multiple projects. Therefore the obligations net $0.

No RHCP funds were obligated in FFY22. Preliminary engineering for a substantial rail safety project obligated before FFY22 and two construction engineering projects is expected to bid and obligate in FFY23 and FFY24. DOT #834-498D Silver Lake Road Crossing, Reno, Washoe County, Nevada which is at 60% design stage. Construction is scheduled to obligate in FFY23 with an approximate cost of $2,500,000.00. DOT #833-586K Highland Avenue, Reno, Washoe County, Nevada is at 30% design stage. Construction is scheduled to obligate in FFY24 with an approximate cost of $1,500,000.00.

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

$163,202

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

$163,202

NDOT does not set a funding limit for local or tribal safety project. Current projects are designed and constructed by the NDOT team. NDOT is developing a LPA process for all locals to submit for HSIP funds.

$163,202 is obligated towards Low Cost Pedestrian Improvements and Road Improvements in Wadsworth, Nevada for the Pyramid Lake Paiute Tribe

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

44%

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

56%

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?

$12,756,978

Funds transferred to National Highway Performance IIJA

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

The NDOT Traffic Safety Engineering team is still working though changes inspired by the Covid-19 Pandemic and staff turnover. NDOT has spent 2022 establishing the Local Road Safety Plan (LRSP) through the Local Public Agency (LPA) process. The project is in its beginning stages, and it is too premature to report on the project development. NDOT is excited to implement the project in FFY 2023 and will report on its development in the 2023 HSIP report.

Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

Nevada has developed a process for funding Local Road Safety Plans (LRSP) for local and tribal agencies. With this LRSP, agencies will be able to apply for additional federal funding. A pilot project is being done with the City of North Las Vegas. Nevada is providing this opportunity to all local and tribal agencies and are using approved methods as defined in the HSIP manual to identify and pursue the state HSIP projects.

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
DPS/OTS ROAD USERS BEHAVIORAL CAMPAIGN FY23-24	Miscellaneous	Miscellaneous - other	0	Statewide Campaign	$2660000	$2800000	HSIP (23 U.S.C. 148)	Multiple/Varies	N/A	0	0	Other State Agency	Systemic	All Key Emphasis Areas	All Key Emphasis Areas
UNR CATER SUPPORT FOR HSIP PROGRAM	Miscellaneous	Data analysis	0	Statewide	$570000	$600000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	Systemic	Data	All Key Emphasis Areas
SR 447, PYRAMID LAKE PAIUTE TRIBE WADSWORTH LOW COST PEDESTRIAN AND ROAD SAFETY IMPROVEMENTS	Pedestrians and bicyclists	Pedestrians and bicyclists – other	0.38	Miles	$163202	$171792	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	840	25	Indian Tribe Nation	Systemic	Pedestrians	Pedestrians
SR 589 FROM SR 595 TO I15N NB RAMPS ACCESS MANAGEMENT, PEDESTRIAN UPGRADES, AND SIGNAL IMPROVEMENTS	Access management	Access management - other	4	Miles	$3603573	$3793264	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	49,167	45	State Highway Agency	Spot	Intersections and Pedestrians	All Key Emphasis Areas
SR 225 AND TERMINAL WAY, MP EL 27.75	Pedestrians and bicyclists	Rapid Rectangular Flashing Beacons (RRFB)	1	Intersections	$623890	$656726	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,900	35	State Highway Agency	Spot	Intersections	Intersections and Pedestrians
SR 169 MP CL 20.670 TO MP CL 24.140 SHOULDER WIDENING AND ADD TRUCK CLIMBING LANE	Roadway	Roadway widening - add lane(s) along segment	3.47	Miles	$12562521	$13223706	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Other	480	50	State Highway Agency	Spot	Roadway Departure	Lane Departure
DPS-OTS STATEWIDE OVERSIGHT OF EMS SERVICES FFY18	Miscellaneous	Miscellaneous - other	0	Statewide	$144726	$152343	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	Other State Agency	Systemic	All Key Emphasis Areas	All Key Emphasis Areas
STATEWIDE TRAFFIC INCIDENT MANAGEMENT SYSTEM (TIMS) FFY 2022-2024	Miscellaneous	Data collection	0	Data Collection and Analysis	$807500	$850000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	Systemic	Data	All Key Emphasis Areas

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
US 95 MP ES 0.000 TO MP ES 44.196 WIDEN SHOULDERS, FLATTEN SLOPES, AND ADD PASSING LANES	Roadway	Roadway widening - add lane(s) along segment	44.196	Miles	$-452639	$-476462	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other Freeways & Expressways	2,583	70	State Highway Agency	Systemic	Roadway Departure	Lane Departure
LUCAS ROAD RAILROAD CROSSING INSTALL CONCRETE SURFACE	Railroad grade crossings	Crossing approach improvements	1	Crossing	$-32259	$-35843	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Rural	Minor Arterial	380	35	State Highway Agency	Spot	Intersections	Intersections
ROBERSON LN RAILROAD CROSSING INSTALL CONCRETE SURFACE	Railroad grade crossings	Crossing approach improvements	1	Crossing	$-27208	$-30231	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	790	35	State Highway Agency	Spot	Railroad Crossing	Intersections
FRANKLIN WAY RAILROAD CROSSING	Railroad grade crossings	Crossing approach improvements	1	Crossing	$1729	$-49812	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	1,950	25	State Highway Agency	Spot	Railroad Crossing	Intersections
CRAIG RD FROM DECATUR BLVD TO FIFTH ST PEDESTRIAN, ADA, AND ROADWAY IMPROVEMENTS	Pedestrians and bicyclists	Pedestrians and bicyclists – other	4.1	Miles	$-344839	$-362988	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	39,333	45	State Highway Agency	Systemic	Pedestrians	Pedestrians
MULTIPLE INTERSECTIONS IN DISTRICT 1 SIGNAL SYSTEM MODIFICATION	Intersection traffic control	Modify traffic signal – add flashing yellow arrow	15	Intersections	$-63825	$-67185	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	State Highway Agency	Systemic	Intersections	Intersections
MCCARRAN BLVD FROM GREG ST TO PRATER WAY INTERSECTION, SLIP LANES, AND PEDESTRIAN SAFETY IMPROVEMENTS	Intersection geometry	Add/modify auxiliary lanes	1.5	Miles	$-293523	$-308971	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	29,150	45	State Highway Agency	Systemic	Intersections	Intersections and Pedestrians
VARIOUS INTERSECTIONS IN WASHOE COUNTY ADD RETROREFLECTIVE BACKPLATES	Intersection traffic control	Modify traffic signal – add backplates with retroreflective borders	152	Intersections	$-248401	$-261474	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	State Highway Agency	Systemic	Intersections	Intersections

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
STATEWIDE ZERO FATALITES MARKETING PROGRAM FFY 14-17	Miscellaneous	Transportation safety planning	0	Statewide	$-182658	$-192271	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	Other State Agency	Systemic	All Key Emphasis Areas	All Key Emphasis Areas
PRELIMINARY ENGINEERING FOR CROSSING SURFACE IMPROVEMENTS AT SIX RAILROAD CROSSINGS	Railroad grade crossings	Crossing approach improvements	6	Crossings	$-5802	$-6447	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	N/A	N/A	0	0	State Highway Agency	Spot	Railroad Crossings	Intersections
FLANIGAN RD RAILROAD CROSSING INSTALL CONCRETE SURFACE	Railroad grade crossings	Crossing approach improvements	1	Crossing	$-16269	$-18077	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Rural	Minor Arterial	40	25	State Highway Agency	Spot	Railroad Crossing	Intersections
SR 789 GETCHEL MINE UPGRADE CROSSING SIGNAL SYSTEM	Railroad grade crossings	Active grade crossing equipment installation/upgrade	1	Crossing	$-11710	$-13011	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Rural	Minor Arterial	580	55	State Highway Agency	Spot	Railroad Crossing	Intersections
MITCHELL ST RAILROAD CROSSING INSTALL CONCRETE SURFACE	Railroad grade crossings	Crossing approach improvements	1	Railroad Crossing	$-125194	$-139102	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	5,050	35	State Highway Agency	Spot	Railroad Crossings	Intersections
ECCLES RAILROAD CROSSING INSTALL RAILROAD CROSSING SYSTEM	Railroad grade crossings	Active grade crossing equipment installation/upgrade	1	Railroad Crossings	$-40280	$-44755	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Rural	Local Road or Street	40	25	State Highway Agency	Spot	Railroad Crossings	Intersections
S LAS VEGAS BLVD RAILROAD CROSSING EXTEND CONCRETE CROSSING SURFACE	Railroad grade crossings	Crossing approach improvements	1	Railroad Crossing	$-58645	$-65161	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Minor Collector	23,300	45	State Highway Agency	Spot	Railroad Crossings	Intersections
UNIVERSITY OF NEVADA SCHOOL OF MEDICINE DATA MANAGEMENT AND QUALITY IMPROVEMENT	Miscellaneous	Data collection	0	Statewide	$-51131	$-53823	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	Other State Agency	Systemic	Data	All Key Emphasis Areas

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
SR 431 MP WA 0.00 TO MP WA 3.00, MP WA 13.00 TO MP WA 16.00 INSTALL SAFETY IMPROVEMENTS	Roadway	Roadway - other	6	Miles	$-120809	$-127166	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	4,150	45	State Highway Agency	Systemic	Roadway Departure	Lane Departure
CARSON AND DOUGLAS COUNTY WASHOE TRIBE INSTALL LOW COST PEDESTRIAN AND ROAD IMPROVEMENTS	Pedestrians and bicyclists	Pedestrians and bicyclists – other	2.34	Miles	$-65504	$-68952	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0	25	Indian Tribe Nation	Systemic	Pedestrians	Pedestrians
LAKE TAHOE REGIONAL SAFETY PLAN	Miscellaneous	Data analysis	0	Statewide	$-344	$-362	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	Other Local Agency	Systemic	Data	All Key Emphasis Areas
ARROWHEAD TRAIL RAILROAD CROSSING ADJUST AND UPGRADE SIGNAL SYSTEM	Railroad grade crossings	Active grade crossing equipment installation/upgrade	1	Railroad Crossing	$-13050	$-14500	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	2,450	25	State Highway Agency	Spot	Railroad Crossing	Intersections
MULTIPLE LOCATIONS IN DISTRICT 2 SR 359, SR 445, SR 446, SR 447, AND US 50	Roadway	Rumble strips – edge or shoulder	5	Locations	$-38357	$-40372	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency	Systemic	Roadway Departure	Lane Departure
IR 15 INSTALL WRONG WAY DRIVER SYSTEM AT FOUR INTERCHANGES	Advanced technology and ITS	Wrong-way Driving Detection System	4	Intersections	$935162	$984381	Penalty Funds (23 U.S.C. 164)	Urban	Principal Arterial-Interstate	75,500	65	State Highway Agency	Systemic	Intersections	Intersections
STATEWIDE SAFETY ANALYST SUPPORT	Miscellaneous	Data collection	0	Data Collection and Analysis	$-30537	$-32144	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	Systemic	Data	Data
STATEWIDE SAFETY MANAGEMENT PLAN FFY 2013-2017	Miscellaneous	Transportation safety planning	0	Statewide	$-2324406	$-2446743	Penalty Funds (23 U.S.C. 154)	N/A	N/A	0	0	State Highway Agency	Systemic	All Key Emphasis Areas	All Key Emphasis Areas
YORK LANE RAILROAD CROSSING INSTALL CONCRETE SURFACE	Railroad grade crossings	Crossing approach improvements	1	Crossing	$-22903	$-25448	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	700	25	State Highway Agency	Spot	Railroad Crossing	Intersections

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
REGAN PLACE RAILROAD CROSSING INSTALL CONCRETE SURFACE	Railroad grade crossings	Crossing approach improvements	1	Railroad Crossing	$-29971	$-33301	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Local Road or Street	120	25	State Highway Agency	Spot	Railroad Crossing	Intersections
US 95 MP NY72.036 TO NY103.552 SHOULDER WIDENING, SLOPE FLATTENING, TURN LANES, AND BOX EXTENSIONS	Roadway	Roadway widening - add lane(s) along segment	31.516	Miles	$5502438	$5792040	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Rural	Principal Arterial-Other	2,700	70	State Highway Agency	Systemic	Lane Departure	Roadway Departure
US 95 MP NY 28.817 TO NY 56.234 2 INCH COLDMILL WITH OPEN GRADE, WIDEN FOR NB AND SB PASSING LANES	Roadway	Roadway widening - add lane(s) along segment	27.417	Miles	$1617898	$1703050	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Other	2,800	70	State Highway Agency	Systemic	Lane Departure	Roadway Departure
STATEWIDE CRASH DATA MANAGEMENT AND MAINTENANCE	Miscellaneous	Data collection	1	Data Analysis	$47500	$50000	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	Systemic	Data	All Key Emphasis Areas
CRASH TRAUMA DATA MANAGEMENT	Miscellaneous	Data collection	1	Data Collection and Analysis	$1358965	$1430490	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	Systemic	Data	All Key Emphasis Areas
DEVELOPMENT OF LOCAL ROAD SAFETY PLANS (LRSPs)	Miscellaneous	Transportation safety planning	0	Statewide	$789022	$830549	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	State Highway Agency	Systemic	All Key Emphasis Areas	All Key Emphasis Areas
I 580 INSTALL WRONG WAY DRIVER SYSTEM AT FIVE INTERCHANGES	Advanced technology and ITS	Wrong-way Driving Detection System	5	Intersections	$735176	$773870	Penalty Funds (23 U.S.C. 164)	Urban	Principal Arterial-Interstate	42,000	65	State Highway Agency	Systemic	Intersections	Intersections

SR 169 MP CL 20.670 TO MP CL 24.140 Shoulder Widening and Add Truck Climbing Lane project uses both SEC 154 Penalties-For HSIP and SEC 164 Penalties HSIP IIJA funds, in addition to HSIP IIJA and HSIP FAST funds. This project's HSIP funds in FFY22 is for $12,562,521 with a total cost of $13,233,706 and FFY23 HSIP funds for $2,087,438 with a total cost of $2,197,303. The overall total cost of this project is $15,421,009 and the HSIP total amount is $14,649,959.

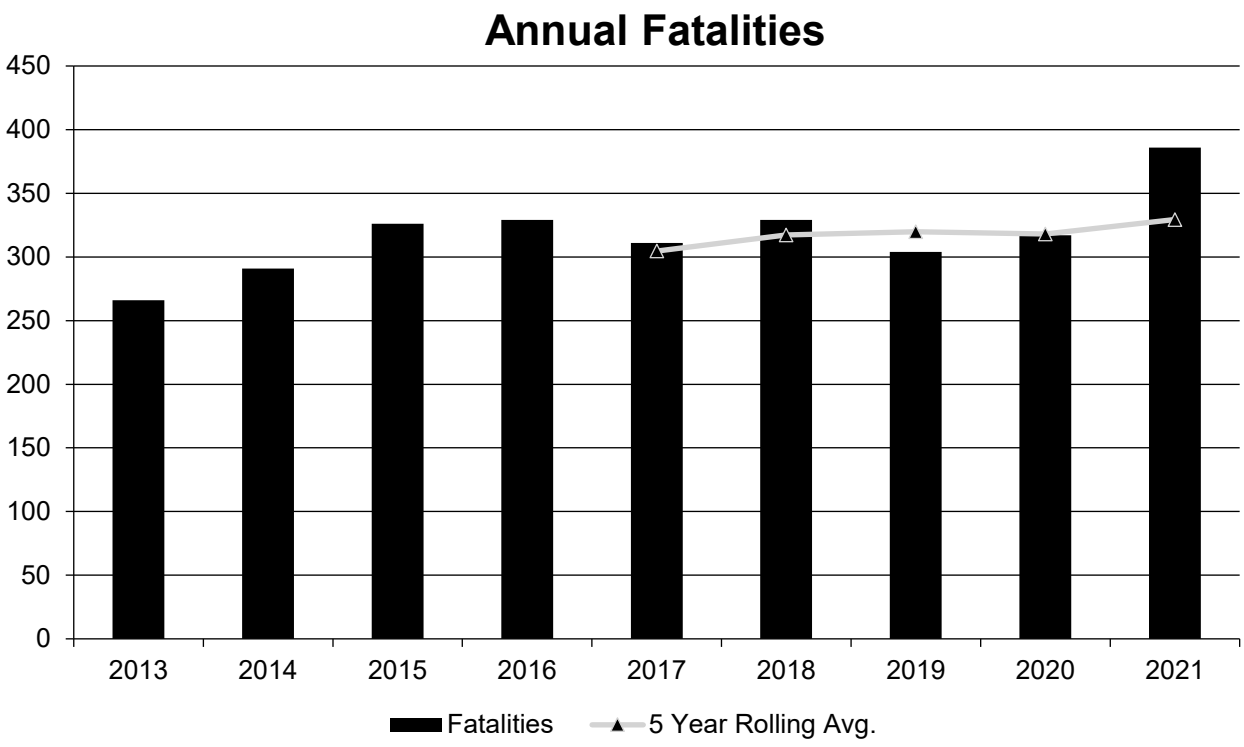
Negative values reflect NDOT fiscal closeout of older projects. These projects are included to reflect all Obligated and Programmed HSIP funds in the reporting period.

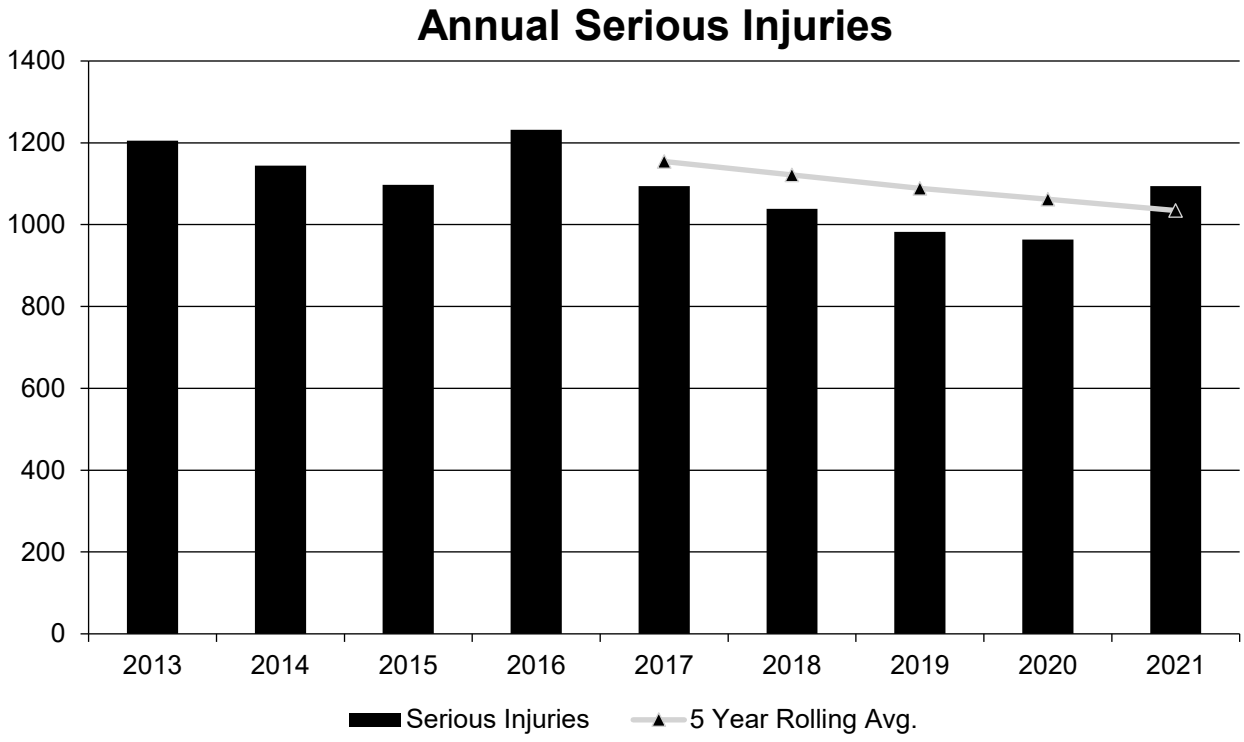
Safety Performance

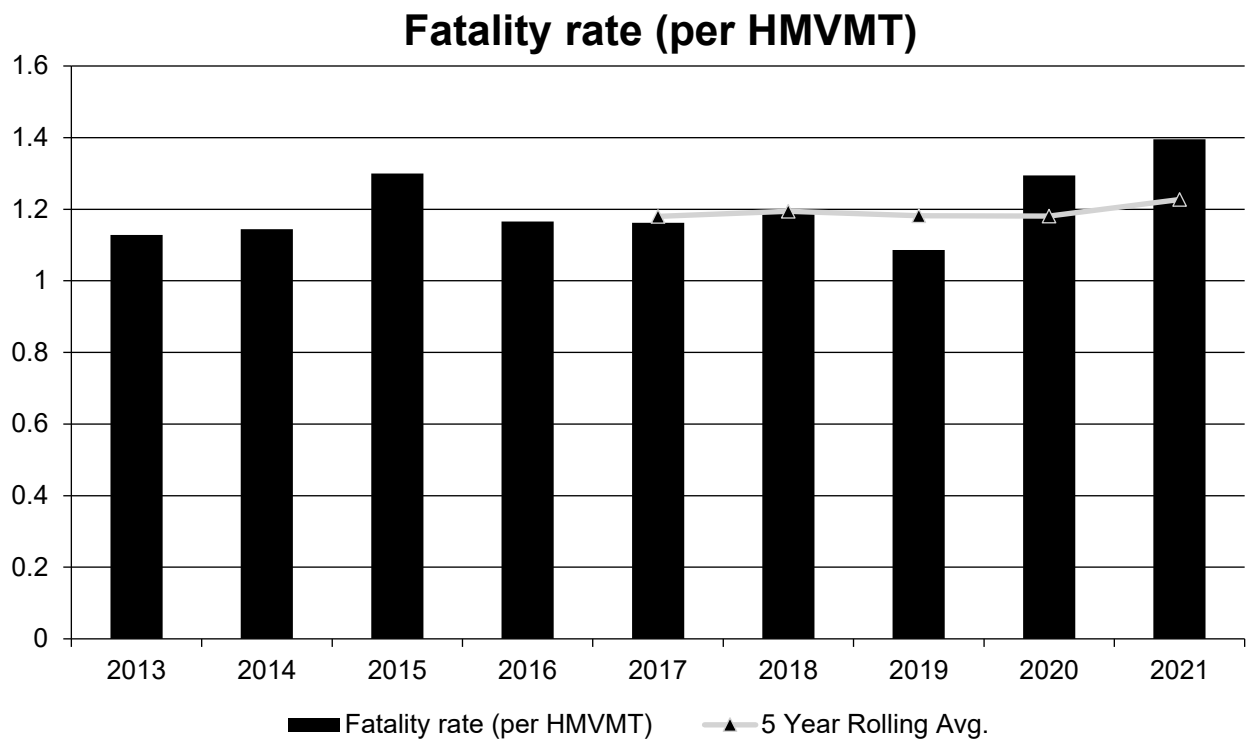
General Highway Safety Trends

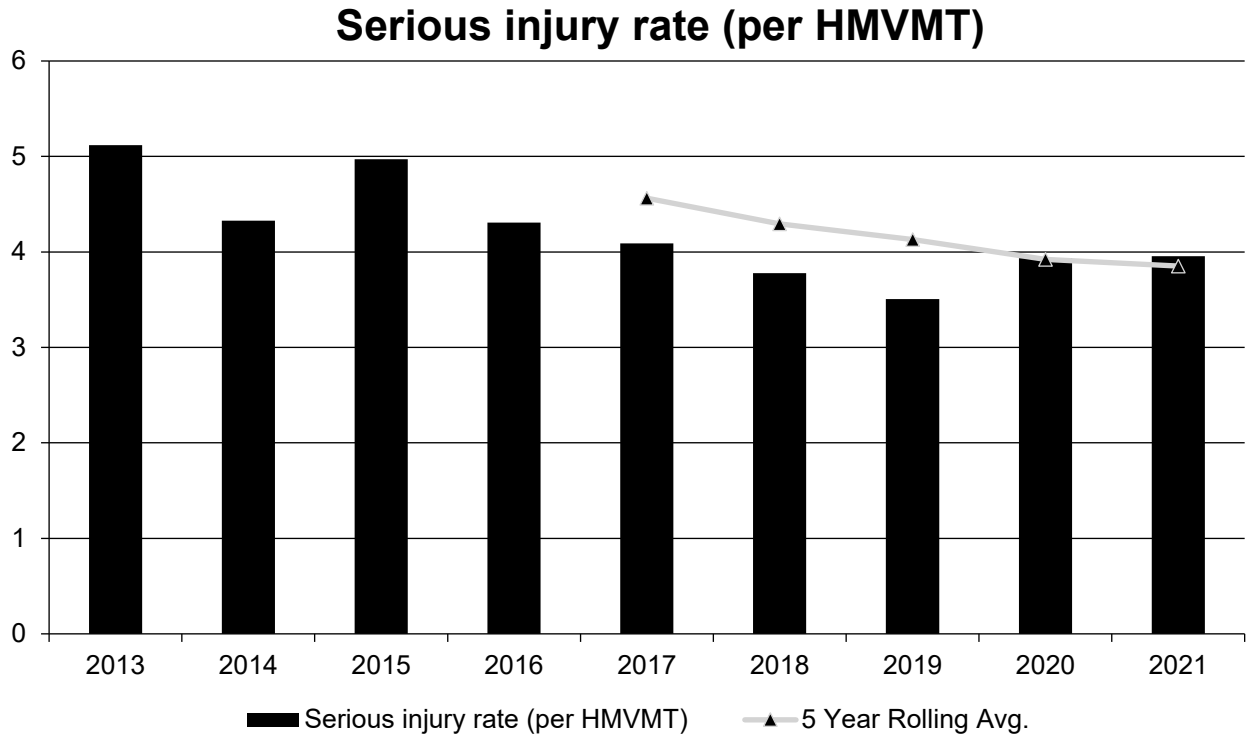
Present data showing the general highway safety trends in the State for the past five years.

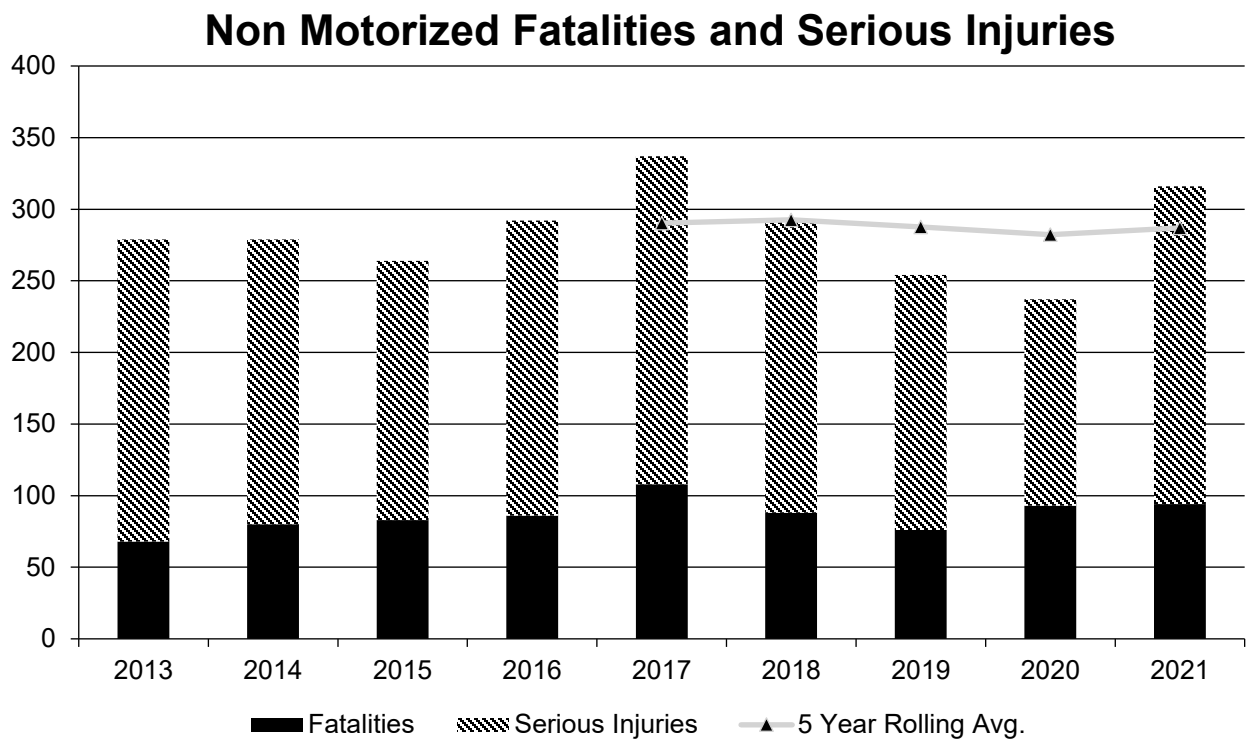
PERFORMANCE MEASURES	2013	2014	2015	2016	2017	2018	2019	2020	2021
Fatalities	266	291	326	329	311	329	304	317	386
Serious Injuries	1,205	1,144	1,097	1,232	1,094	1,039	982	964	1,094
Fatality rate (per HMVMT)	1.128	1.144	1.300	1.166	1.162	1.196	1.086	1.294	1.395
Serious injury rate (per HMVMT)	5.120	4.328	4.972	4.306	4.088	3.777	3.508	3.934	3.955
Number non-motorized fatalities	68	80	83	86	108	88	76	93	94
Number of non-motorized serious injuries	211	199	181	206	229	203	178	144	222


Annual Fatalities
450
400
350
300
250
200
150
100
50
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
1400
1200
1000
800
600
400
200
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)
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.



Describe fatality data source.

FARS

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

Year 2020

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	21	30.8	0.92	1.34
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - Other	34.4	48.6	2.07	2.94
Rural Minor Arterial	8.8	15.4	2.11	3.8
Rural Minor Collector	2.8	3	1.99	2.13
Rural Major Collector	8.6	20	2.29	5.34

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Local Road or Street	5	13.2	1.01	2.77
Urban Principal Arterial (UPA) - Interstate	23	62.6	0.52	1.4
Urban Principal Arterial (UPA) - Other Freeways and Expressways	8.6	28.6	0.54	1.61
Urban Principal Arterial (UPA) - Other	61.6	192.2	1.81	5.81
Urban Minor Arterial	92.2	306.2	1.84	5.91
Urban Minor Collector	27.6	104.2	1.3	4.74
Urban Major Collector	1.6	1.6	3.03	3.49
Urban Local Road or Street	21	78.2	0.42	1.65

Year 2020

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	0	0	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				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2023 Targets *

Number of Fatalities:347.8

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

The target was set based on Nevada's SHSP Goal of Zero Fatalities in 2050. The number of non -motorized fatalities and serious injuries in 2022 was reduced on a straight-line basis to be 0 in 2050.

Number of Serious Injuries:1021.3

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

The target was set based on Nevada's SHSP Goal of Zero Fatalities in 2050. The number of non -motorized fatalities and serious injuries in 2022 was reduced on a straight-line basis to be 0 in 2050.

Fatality Rate:1.279

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

The target was set based on Nevada's SHSP Goal of Zero Fatalities in 2050. The number of non -motorized fatalities and serious injuries in 2022 was reduced on a straight-line basis to be 0 in 2050.

Serious Injury Rate:3.755

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

The target was set based on Nevada's SHSP Goal of Zero Fatalities in 2050. The number of non -motorized fatalities and serious injuries in 2022 was reduced on a straight-line basis to be 0 in 2050.

Total Number of Non-Motorized Fatalities and Serious Injuries:262.6

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

The target was set based on Nevada's SHSP Goal of Zero Fatalities in 2050. The number of non -motorized fatalities and serious injuries in 2022 was reduced on a straight-line basis to be 0 in 2050.

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

Nevada is sharing its methodology with all stakeholders and will support all efforts to align with the SHSP Goal of Zero Fatalities in 2050 by reducing on a straight-line basis to be 0 in 2050.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2022 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	330.2	329.4
Number of Serious Injuries	1154.7	1034.6

Fatality Rate	1.226	1.227
Serious Injury Rate	3.835	3.852
Non-Motorized Fatalities and Serious Injuries	309.8	287.0

Nevada met the targets for Number of Fatalities, Number of Serious Injuries, Fatality Rate, and Non-Motorized Fatalities and Serious Injuries. Nevada did not meet the performance target for Serious Injury Rate. Serious injuries have been increasing in Nevada and across the nation. Nevada is now seeing the upward trend in these crashes in the 5-year average. NDOT is looking into every avenue to reduce serious injuries on the road network to decrease the serious injury rate.

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	46	55	53	62	63	50	77
Number of Older Driver and Pedestrian Serious Injuries	110	130	129	115	124	140	101

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Change in fatalities and serious injuries

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

NDOT Traffic Safety Engineering focuses on developing projects that will reduce the numbers of fatalities and serious injuries. This involves using HSIP funds as outlined in the strategies and action items under the current emphasis areas outlined in the Nevada SHSP. Due to the increased rate of serious injuries on the road network, NDOT is looking into every resource available to decrease the upward trend.

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
- HSIP Obligations
- Increased awareness of safety and data-driven process
- Increased focus on local road safety
- More systemic programs
- Policy change

Describe significant program changes that have occurred since the last reporting period.

NDOT Traffic Safety Engineering has developed a new system for project delivery on local roadways. The FHWA approved this process on July 18, 2022. NDOT is looking forward to establishing this program and will start seeing progress in FFY 2023.

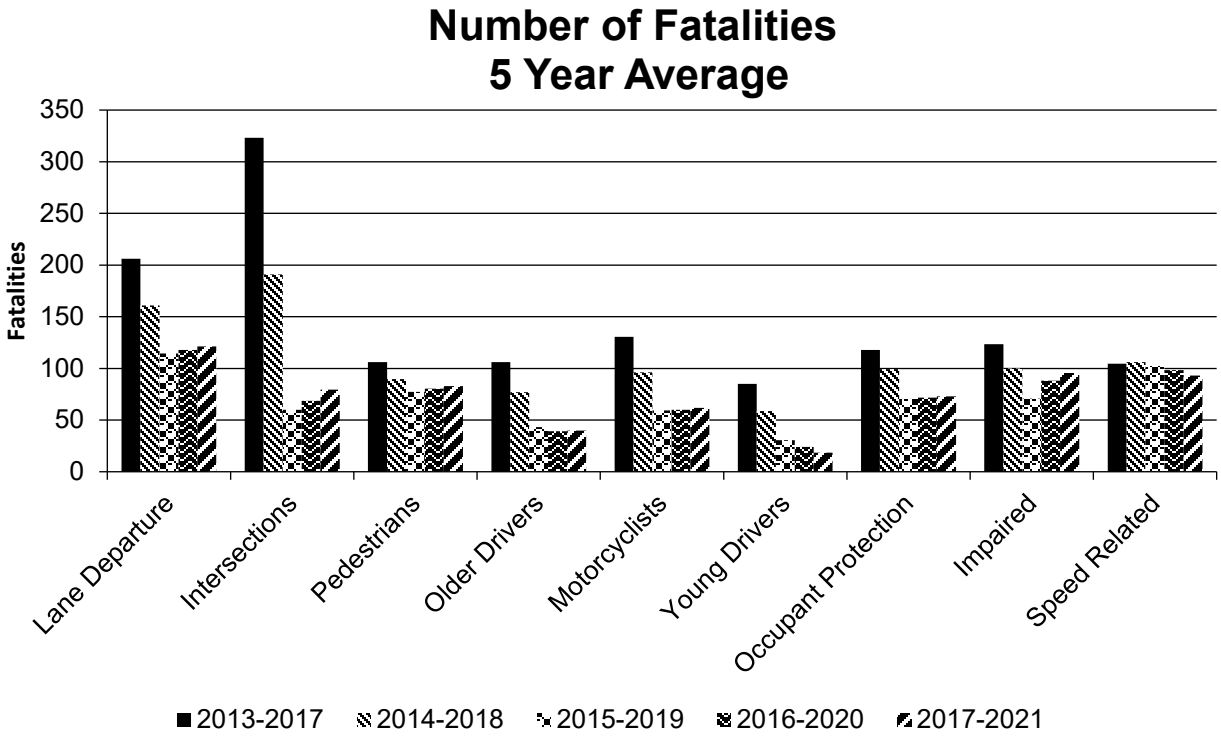
Effectiveness of Groupings or Similar Types of Improvements

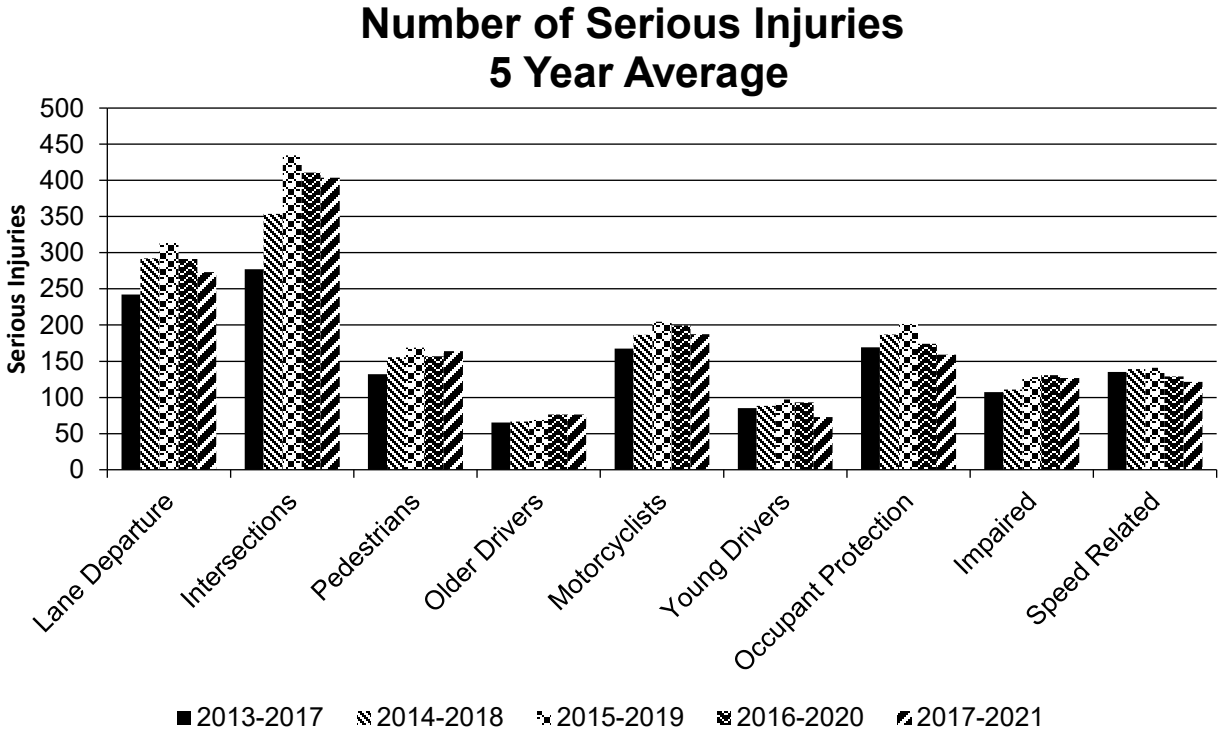
Present and describe trends in SHSP emphasis area performance measures.

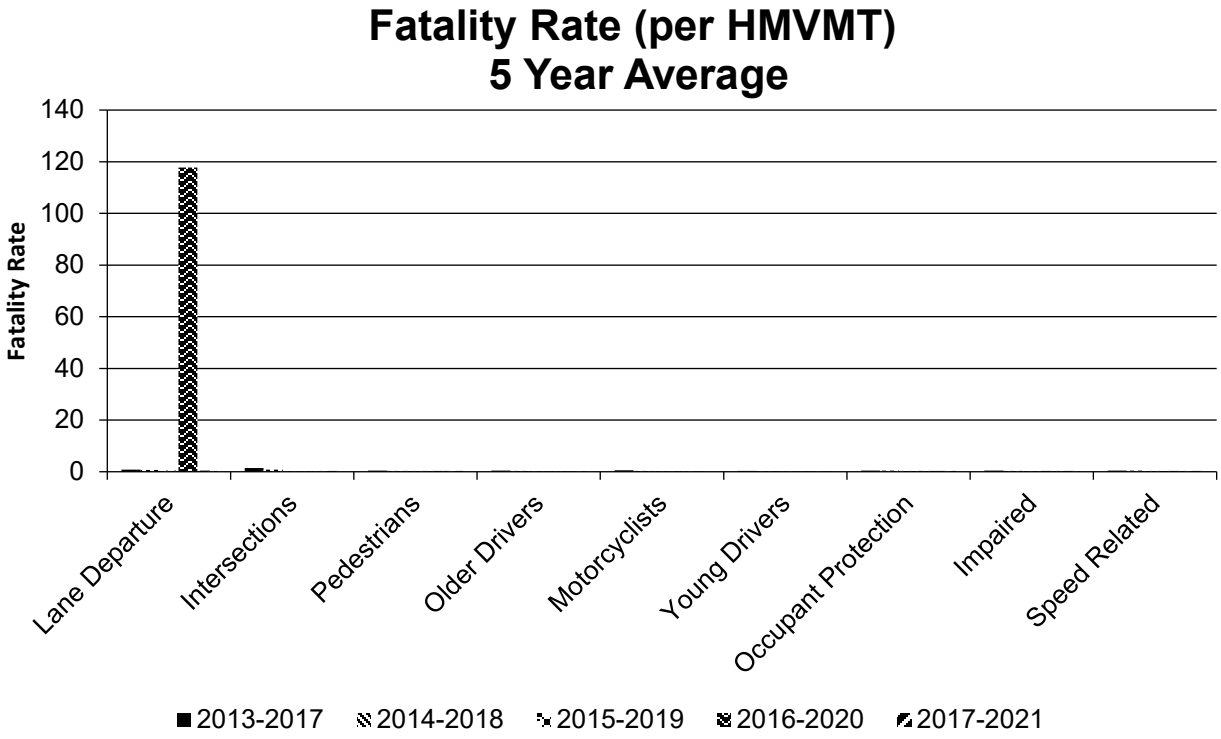
Year 2021

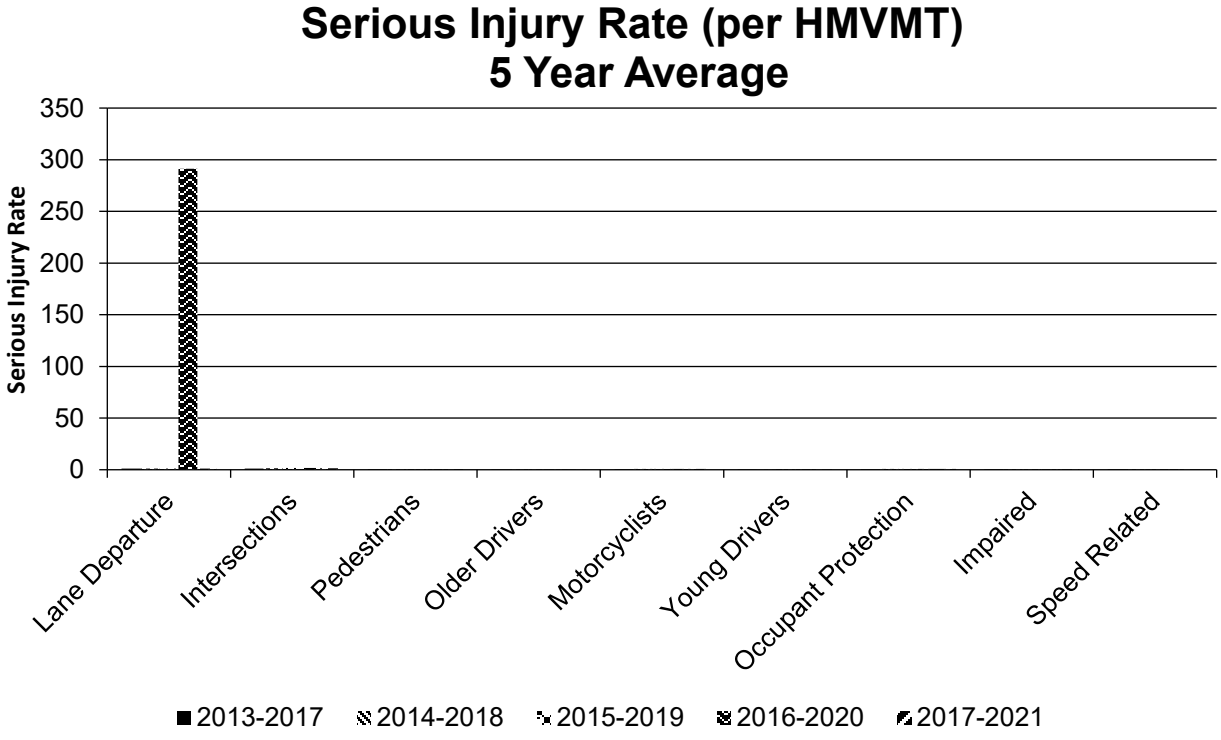
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Lane Departure	Run-off-road	121.3	273.2	0.45	1.03
Intersections	Intersections	79.6	403.67	0.3	1.5
Pedestrians	Vehicle/pedestrian	82.9	164	0.31	0.6

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Older Drivers	All	39.87	76.37	0.14	0.31
Motorcyclists	All	61.8	187.4	0.24	0.77
Young Drivers	All	18.33	72.67	0.05	0.29
Occupant Protection	All	73.1	159	0.28	0.66
Impaired	All	95.67	126.93	0.38	0.55
Speed Related	Speed-related	93.07	121.67	0.34	0.45


Number of Fatalities
5 Year Average
Fatalities
350
300
250
200
150
100
50
0
Lane Departure
Intersections
Pedestrians
Older Drivers
Motorcyclists
Young Drivers
Occupant Protection
Impaired
Speed Related
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021


Number of Serious Injuries
5 Year Average
Serious Injuries
500
450
400
350
300
250
200
150
100
50
0
Lane Departure
Intersections
Pedestrians
Older Drivers
Motorcyclists
Young Drivers
Occupant Protection
Impaired
Speed Related
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021


Fatality Rate (per HMVMT)
5 Year Average
Fatality Rate
140
120
100
80
60
40
20
0
Lane Departure
Intersections
Pedestrians
Older Drivers
Motorcyclists
Young Drivers
Occupant Protection
Impaired
Speed Related
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021


Serious Injury Rate (per HMVMT)
5 Year Average
Serious Injury Rate
350
300
250
200
150
100
50
0
Lane Departure
Intersections
Pedestrians
Older Drivers
Motorcyclists
Young Drivers
Occupant Protection
Impaired
Speed Related
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021

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)
SR 573 (CRAIG RD) FROM DECATUR BLVD TO FIFTH STREET	Urban Principal Arterial (UPA) - Other	Pedestrians and bicyclists	Pedestrians and bicyclists – other	284.00	306.00	3.00	1.00	29.00	9.00	242.00	317.00	558.00	633.00	8.99
US 93 MP CL 64 TO MP CL 86	Rural Principal Arterial (RPA) - Other	Roadway	Roadway widening - add lane(s) along segment	12.00	11.00	1.00	1.00	1.00	3.00	8.00	7.00	22.00	22.00	-0.13
SR 667 (KIETZKE LANE) FROM MILL ST TO GALLETTI WAY	Urban Principal Arterial (UPA) - Other	Pedestrians and bicyclists	Pedestrians and bicyclists – other	30.00	15.00		3.00	1.00	2.00	29.00	19.00	60.00	39.00	-5.45
US 395 MP DO 26.19, MP DO 27.96, MP DO 28.97	Urban Principal Arterial (UPA) - Other	Intersection geometry	Add/modify auxiliary lanes	26.00	23.00			2.00	1.00	10.00	13.00	38.00	37.00	0.07
TE-MOAK LOW COST SAFETY IMPROVEMENTS (SED)	Rural Principal Arterial (RPA) - Other	Miscellaneous	Miscellaneous - other											
VARIOUS INTERSECTIONS IN DISTRICT 2	Mulitple/Varies	Intersection traffic control	Modify traffic signal – add additional signal heads											

The benefit (B) is calculated using Nevada's best available societal costs per crash type multiplied by the reduction in crash type. The cost (C) is total project costs. The blank areas in the spreadsheet are zeros, this question defaults and leaves them blank when you enter zero.

Both the Te-Moak Low Cost Safety Improvements and Various Intersections in District II were systemic spot improvements and not conducive to an accurate benefit/cost analysis.

Compliance Assessment

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

01/26/2021

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					15	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					15	100		
	Average Annual Daily Traffic (79) [81]	100	100					15	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]										
	Intersection/Junction Traffic Control (131) [131]			30	30						
	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]										
	Roadway Type at End Ramp Terminal (199) [189]										
	Interchange Type (182) [172]					100	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**	**100.00**	**78.75**	**78.75**	**81.82**	**81.82**	**71.67**	**100.00**	**100.00**	**100.00**

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

NDOT is waiting on results from the Roadway Safety Data Program (RDIP) assessment to outline a plan for execution to complete the collection of the MIRE 2.0 Fundamental Data Elements (FDEs). RDIP results are expected Fall 2022.

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.

Nevada continues to identify proactive actions to meet the MIRE Fundamental Data Elements (FDEs) deadline of September 30, 2026. Completed actions (to date) include: mapping subsequent overlap between HPMS and MIRE data elements, as well as, participation in Federal Highway Administration FDEs mapping report, the investigation of database management system to create a MIRE repository, and the collection and identification of safety gaps not addressed by MIRE, State, or Federal guidance. Data extraction from the Road Video Lidar system is underway, and once completed, data will be utilized in safety tools and/or other tools. Lastly, evaluation shall include Highway Safety Improvement Program quality control, ensuring the accuracy of safety data. Nevada held a Roadway Data Improvement Program (RDIP) workshop on May 3, 2022 and May 4, 2022. Nevada is waiting on the assessment to proceed with a strategic plan to collect the MIRE data elements.

Optional Attachments

Program Structure:

HSIP Procedure Manual July 2020.pdf
Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

Glossary

5 year rolling average: means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).

Emphasis area: means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

Highway safety improvement project: means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

HMVMT: means hundred million vehicle miles traveled.

Non-infrastructure projects: are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

Older driver special rule: applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

Performance measure: means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

Programmed funds: mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

Roadway Functional Classification: means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

Strategic Highway Safety Plan (SHSP): means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

Systematic: refers to an approach where an agency deploys countermeasures at all locations across a system.

Systemic safety improvement: means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

Transfer: means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.