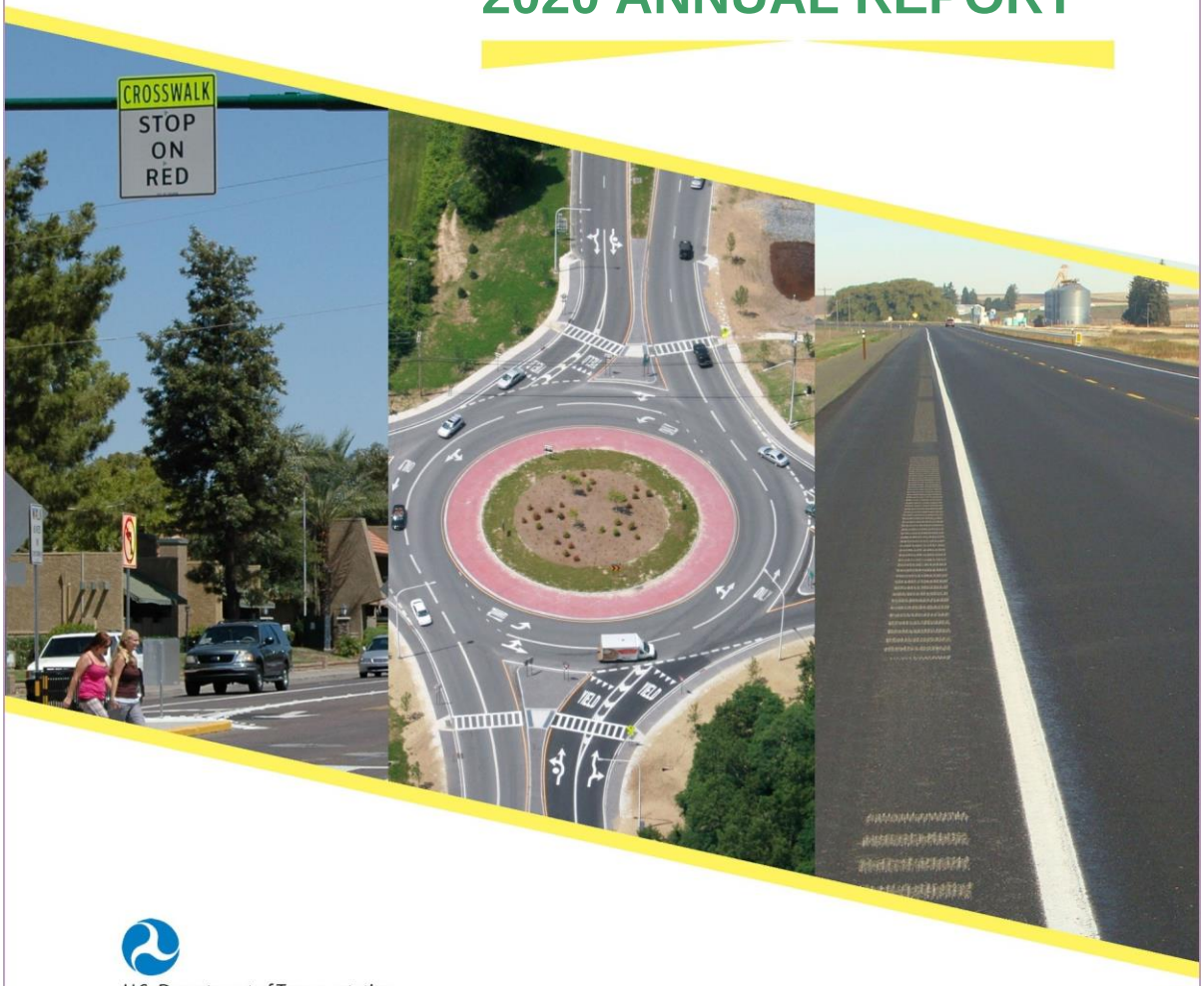
NEVADA

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2020 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

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Table of Contents

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Protection of Data from Discovery Admission into Evidence

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

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

Executive Summary

The annual Highway Safety Improvement Program (HSIP) report for 2020 summarizes the activities of the Nevada Department of Transportation's HSIP as required by Fixing America's Surface Transportation (FAST) Act. The FAST Act 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 (FAST Act § 1113; 23 U.S.C. 148).

The FAST Act continued to allocate funds for the HSIP program in the Federal Fiscal Years 2016 – 2020. Available program funds for the purpose of this report are considered to be those funds obligated during the 2019 Federal Fiscal Year. The activities of the Nevada Department of Transportation (NDOT) are primarily designed to develop safety improvement projects for the following areas:

· High crash locations (intersections, and roadway segments)

· Pedestrian related safety improvements

· Urban intersection safety improvements

· Urban lane departure crash mitigation

· Rural intersection safety improvements

· Rural lane departure crash mitigation

· Systemic safety Improvements

· Tribal low-cost safety improvements

The crash data on all public roadways contained in this report is extracted from the Nevada Citation and Accident Tracking System (NCATS) and Brazos 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 Brazos 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.

The NDOT Traffic Safety Engineering team has experienced significant turnover in the last few years. New leadership and team members have been reviewing innovative ideas and challenging old processes. The team is excited to use internal and external best practices to strengthen traffic safety in Nevada.

NDOT Traffic Safety Engineering is gearing up to launch a new pilot project using the NDOT Local Public Agency (LPA). This process was approved on August 5th, 2020 and will be reported on in the 2021 HSIP Report. NDOT Traffic Safety Engineering hopes that this will lead to a true partnership with the local agencies. 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.

The HSIP program is administered by the NDOT Traffic Safety Engineering section, a centrally located component of the NDOT. 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 Safety Procedural Manual and other information can be found on the NDOT website at https://www.nevadadot.com/ .

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.

Under the systemic roadway improvements approach, NDOT Traffic Safety Engineering evaluates local roads for safety improvements such as Slope Flattening/Shoulder Widening, Flashing Yellow Arrows, Rumble Strips, and turn pockets with acceleration/deceleration lanes on rural highways. NDOT Traffic Safety Engineering uses recommendations made during Road Safety Assessment (RSA) completed on local and tribal roads to develop projects.

NDOT Traffic Safety Engineering is coordinating with Nye County and FHWA to complete a Local Road Safety Plan (LRSP). The plan will determine Emphasis Areas and identify potential Safety Projects for the county. NDOT Traffic Safety Engineering is developing a plan to reach out to other counties and local entities to support the development of LRSP's statewide.

NDOT Traffic Safety Engineering has developed a low-cost safety improvement project with the Pyramid Lake Paiute Tribe. The Pyramid Lake Paiute Tribe’s Wadsworth Project is an infrastructure improvement project designed to improve pedestrian and bicycle safety along a stretch of SR-447 that runs through the heart of Wadsworth. SR-447 runs past an elementary school, head start center, tribal childcare center and community center. The project will improve traffic safety for motorists, pedestrians, and bicyclists traveling along SR-447, reducing injury and fatality crashes and accomplishing key goals established in the Tribe’s 2015 Transportation Safety Plan. This project is supported by a 2017 RSA. Future tribal road projects will be supported by tribal plans, RSA's and LRSP's.

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.

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 (SMP's), RSA's 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 RSA's, SMP's 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. NDOT is developing an experimental request to the FHWA-MUTCD team for green pavement markings to be installed where bike lanes conflict or in mixing zones. All interim approval projects are approved by the FHWA and studied per agreement with NDOT and the FHWA.

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 (CEA's) 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.

Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Governors Highway Safety Office
- Law Enforcement Agency
- Local Government Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency
- Other-Emergency Medical Services

Describe coordination with external partners.

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 pedestrian Safety, Safety Performance Functions (SPF) development, 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 at least once a month 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.

The Department of Public Safety – Office of Traffic Safety (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.

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 on CEA groups.

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 SMP's and serve as members of the CEA teams.

Representatives from Law Enforcement Agencies and Emergency Medical Services support and participate in the Nevada Safety Summit, contribute to SMP's and serve as members of the CEA teams 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 is working with consultant forces to update the SHSP plan. A team from Kimley-Horn and Associates, Inc. is working with Traffic Safety Engineering and DPS-OTS to close out the 2016-2020 SHSP and develop

the 2021-2025 SHSP. This team is reviewing stakeholders' input and defining the strengths, opportunities and areas for improvement in SHSP implementation. The team is analyzing data and organizational structure to guide Nevada for the next five years.

The SHSP defines the ongoing commitments of the Nevada Safety Team. These commitments include quarterly meetings of the Nevada Executive Committee of Traffic Safety (NECTS) and quarterly meetings for all SHSP CEA Task Forces. Task forces currently include Intersection Safety, Impaired Driving Prevention, Occupant Protection, Pedestrian Safety, Lane Departure Prevention, Motorcycle Safety and Young Driver Safety. The Traffic Records Coordinating Committee (TRCC) has been integrated into the SHSP.

The SHSP team coordinated the 2019 Nevada Traffic Safety Summit. The summit, held in Sparks, Nevada, hosted around 300 practitioners and focused on MYZERO. The Zero Fatalities goal is owned by every person and requires all of us to succeed. The theme for the Summit challenged each attendee to personalize the Zero Fatalities message and fully understand why zero is important to them. Rather than thinking of Zero as a concept, philosophy or ideal we task each participant to speak from the heart, to describe why they show up every day to do what they do to achieve Zero Fatalities on our roadways.

The SHSP team is reassessing the fall 2020 Nevada Traffic Safety Summit due to COVID-19 Pandemic restrictions. The 2020 Summit will be a virtual event. Options are being evaluated on how to effectively engage stakeholders for this virtual event and provide opportunities for learning, partnering and for attendees to provide input on effective SHSP implementation.

Nevada is continuing it RSA program. Twelve (12) RSA's were performed throughout the state in FFY 2020. These RSA's were performed on post and pre-construction phase projects such as 3R preservation projects, capacity projects, corridor studies, high crash locations, and tribal planning projects. The RSA program will continue to be a cornerstone of the NDOT HSIP program. 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.

NDOT Traffic Safety Engineering works with other NDOT teams to perform engineering studies in support of the SHSP. Current studies include "A Data-Drive 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 part of this interim agreement, NDOT is 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.

In support of the Lane Departure CEA Task Force, NDOT Traffic Safety Engineering has initialed a program that identifies locations statewide on rural roads where 2 or more chip seal applications have been installed over centerline rumble strips making them less effective. Locations are identified and centerline rumble strips are reinstalled through NDOT Districts.

NDOT Traffic Safety Engineering is working to develop a data driven approach to identify and prioritize locations for passing lanes. Once this is developed, Traffic Safety Engineering will work with the NDOT team to design, bid and build these projects.

In support of the Intersection CEA Task Force and a systemic approach to intersection safety, Traffic Safety Engineering worked with local agencies to identify and install retro-reflective backplate borders on traffic signals. Many traffic signals already have these retro-reflective borders and this project will install this FHWA proven safety countermeasure at the remaining intersections.

Safety Management Plans are safety focused corridor studies intend 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. Three SMP's kicked off in this reporting period. Locations were identified through the NDOT network screening process. The first is in Reno, Nevada on NV-647 (West 4th Street) between McCarran on the West and North Virginia Street on the East. The second is in Las Vegas, Nevada on off-system East Bonanza Road between Las Vegas Boulevard North and North Nellis Boulevard. The third is in North Las Vegas, Nevada on off-system East Care Avenue from Interstate 15 to North Sloan Lane.

These SMP's will 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.

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.

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?

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:3
Other-Systemic Improvmeents: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
- All crashes

Exposure
- Volume

Roadway
- 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

- 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?

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

- 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?

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

- All crashes

Exposure

- Volume

Roadway

- 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	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?

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

- All crashes

Exposure

- Volume

Roadway

- 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?

5

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

- Add/Upgrade/Modify/Remove Traffic Signal

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
- Other-Safety Management Plans

Does the State HSIP consider connected vehicles and ITS technologies?

No

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

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 was identified as a Focus State for Intersections by FHWA in July 2015. Because of this designation, Traffic Safety Engineering has continued to incorporate systemic and spot treatments at intersections such as Retroreflective Back Plates, pedestrian crossing islands and medians that will provide better corridor access management. NDOT is also currently utilizing the Intersection Control Evaluation (ICE) methodology to evaluate intersection safety mitigation.

Nevada was also identified as a High Risk Rural Roads state and is incorporating systemic proven countermeasures such as rumble strips, curve improvements (including High Friction Surface Treatment), shoulder widening, slope flattening, and passing lanes into our HSIP program.

Three SMP's were completed during the reporting period. These SMP's followed the process identified in the HSIP Manual and analyzed SR-659 (North McCarran Boulevard) in Reno; off-system Sahara Avenue in Las Vegas, Nevada; and off-system Jones and SR-574 (Cheyenne Avenue) in Las Vegas, Nevada. Safety mitigation recommendations from these SMP's area being scoped with the local road owners. These recommendations include access management, pedestrian crossings with flashing beacons and refuge islands, new signal head placement and signal head realignment, multi-use paths, buffered bike lanes and

sidewalks. NDOT Roadway Design and Project Management will design these projects with support from Traffic Safety Engineering. These projects will be contracted through an NDOT contract using HSIP funds.

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)	$31,172,024	$14,087,448	45.19%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$1,487,814	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$0	$5,000,000	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	$31,172,024	$20,575,262	66.01%

Programmed projects were canceled or moved from FFY2020 to later years due to changes in NDOT Traffic Safety Engineering Staff and productivity impacts from the Covid-19 pandemic.

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

5%

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

5%

$772,226.00 was obligated and programmed on SR-447, Pyramid Lake Paiute Tribe Community of Wadsworth for low cost pedestrian and road safety improvements.

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

25%

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

25%

Non-Infrastructure Safety Projects include those obligated and programmed to support the SHSP, RSA program, and data collection efforts.

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?

$9,000,000

The FFY2020 STIP was closed showing projects that have been cancelled. Funding of $1,596,762 for the cancelled projects has not been transferred to other core program areas so it was not appropriate to list it above.

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

The NDOT Traffic Safety Engineering team experienced unprecedented turnover in the reporting period. This turnover, coupled with impacts of the COVID-19 pandemic, has forced the team to review its processes and procedures. New Traffic Safety Engineering Leadership is working with the data analysis and engineering teams to challenge the process and develop a plan that is transparent, sustainable and repeatable. The team has made a commitment to Nevada's FHWA representative to systematically review and update the HSIP Manual, HSIP processes and projects throughout the state of Nevada.

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

Nevada is developing a process to support and fund local and regional projects in a sustainable manner. FHWA recently approved a pilot project using the NDOT Local Public Agency (LPA) program. State HSIP projects will be identified and pursued using processes established in the HSIP Manual.

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
Install Retro-Reflective Borders on Traffic Signal Backplates	Intersection traffic control	Modify traffic signal - add backplates with retroreflective borders	2422	Signal heads	$821580.00	$862659.00	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other Freeways & Expressways	35,000	45	State Highway Agency	Systemic	Intersections	Improve sight distance and traffic control visibility
US 95 in Churchill, Lyon, and Mineral Counties -. road rehabilitation project with	Roadway	Roadway widening - add lane(s) along segment	4.5	Miles	$4000000	$23003063	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	4,000	70	State Highway Agency	Combine with 3R project	Lane Departure	Keep vehicles in their lanes through improvements/engineering
US 93, Elko County - Road Rehabilitation with passing lanes	Roadway	Roadway widening - add lane(s) along segment	6	Miles	$819021.69	$13596157.00	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,500	70	State Highway Agency	Combine with 3R project	Lane Departure	Keep vehicles in their lanes through improvements/engineering
US 95 in Nye County - Road Rehabilitation with Shoulder widening, Slope Flatting, Turn Lanes	Shoulder treatments	Widen shoulder - paved or other	30	Miles	$455185.00	$21317105	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,900	70	State Highway Agency	Combine with 3R project	Lane Departure	Keep vehicles in their lanes through improvements/engineering
Low Cost Pedestrian and Road Safety Projects on SR 447 in Pyramid Lake Paiute Tribe Wadsworth Community	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	.38	Numbers	$772226.00	$1319769	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	800	65	State Highway Agency	Tribal Safety Project	Pedestrians	Implement geometric improvements through engineering
Intersection Improvements at Eastern Ave and Washington in Clark County	Intersection geometry	Intersection geometrics - modify intersection corner radius	1	Intersections	$1489383.00	$1787438	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	36,000	35	State Highway Agency	Safety Management Plan recommendation	Intersections	Implement geometric improvements through engineering
Intersection and Pedestrian Safety Improvements on McCarran in Spark, NV	Pedestrians and bicyclists	Medians and pedestrian refuge areas	1.5	Miles	$1803784.00	$1898720	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	30,000	40	State Highway Agency	Safety Management Plan recommendation	Pedestrians	Implement geometric improvements through engineering
Intersection and Pedestrian Safety Improvements on	Intersection geometry	Intersection geometrics - modify	2	Intersections			HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	30,000	40	State Highway Agency	Safety Management Plan	Intersections	Implement geometric improvements through engineering

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
McCarran in Spark, NV		intersection corner radius											recommendation		
IMPROVE CRASH DATA COLLECTION AND ANALYSIS AT THE UNIVERSITY OF NEVADA LAS VEGAS	Non-infrastructure	Data/traffic records	1	Agency	$31455.00	$33027.75	HSIP (23 U.S.C. 148)	N/A	N/A	0	0	Other Local Agency	Systemic	Data	
IMPROVE CRASH DATA COLLECTION AND ANALYSIS IN ESMERALDA COUNTY	Non-infrastructure	Data/traffic records	1	Agency	$18492.00	$19416.60	HSIP (23 U.S.C. 148)	N/A	N/A	0		County Highway Agency	Systemic	Data	
IMPROVE CRASH DATA COLLECTION AND ANALYSIS IN LANDER COUNTY	Non-infrastructure	Data/traffic records	1	Agency	$58425.00	$61346.25	HSIP (23 U.S.C. 148)	Rural	N/A	0		County Highway Agency	Systemic	Data	
IMPROVE CRASH DATA COLLECTION AND ANALYSIS IN NYE COUNTY	Non-infrastructure	Data/traffic records	1	Agency	$185095.86	$194350.65	HSIP (23 U.S.C. 148)	Rural	N/A	0		County Highway Agency	Systemic	Data	
THE CONTINUED IMPLEMENTATION OF SHSP TO ADDRESS THE SEVEN CRITICAL EMPHASIS AREAS (PEDESTRIANS, IMPAIRED DRIVING, OCCUPANT PROTECTION, INTERSECTIONS,	Non-infrastructure	Transportation safety planning	1	Planning Program	$1900000.00	$1995000.00	HSIP (23 U.S.C. 148)			0		Multiple agencies	Planning	Planning	Planning
STATEWIDE RSA, RSA PERFORMANCE MEASURE AND TRAFFIC SAFETY ENGINEERING STUDIES FOR FFY 2020-21	Non-infrastructure	Road safety audits	12	RSA's	$1732800.00	$1819440.00	HSIP (23 U.S.C. 148)	N/A	N/A	0		All Routes Statewide	In conjunction with project scoping	Multiple Emphasis Areas	

2020 Nevada Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
US 95 FROM 12.16 MILES NORTH OF BEATTY TO 3.67 MILES SOUTH OF THE NY/ES COUNTY LINE	Shoulder treatments	Widen shoulder - paved or other	30	Miles	$1487814		HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Principal Arterial-Other	2,900	70	State Highway Agency	Combine with 3R project	Lane Departure	Keep vehicles on road thru engineering improvements
SAFETY MANAGEMENT PLAN (FFY 2020-2023)	Non-infrastructure	Transportation safety planning	9	Studies	$5000000	$5000000	Penalty Funds (23 U.S.C. 164)	Urban	Multiple/Varies	0		State and/or Local Roads	HSM Network Screening	Multiple Emphasis Areas	

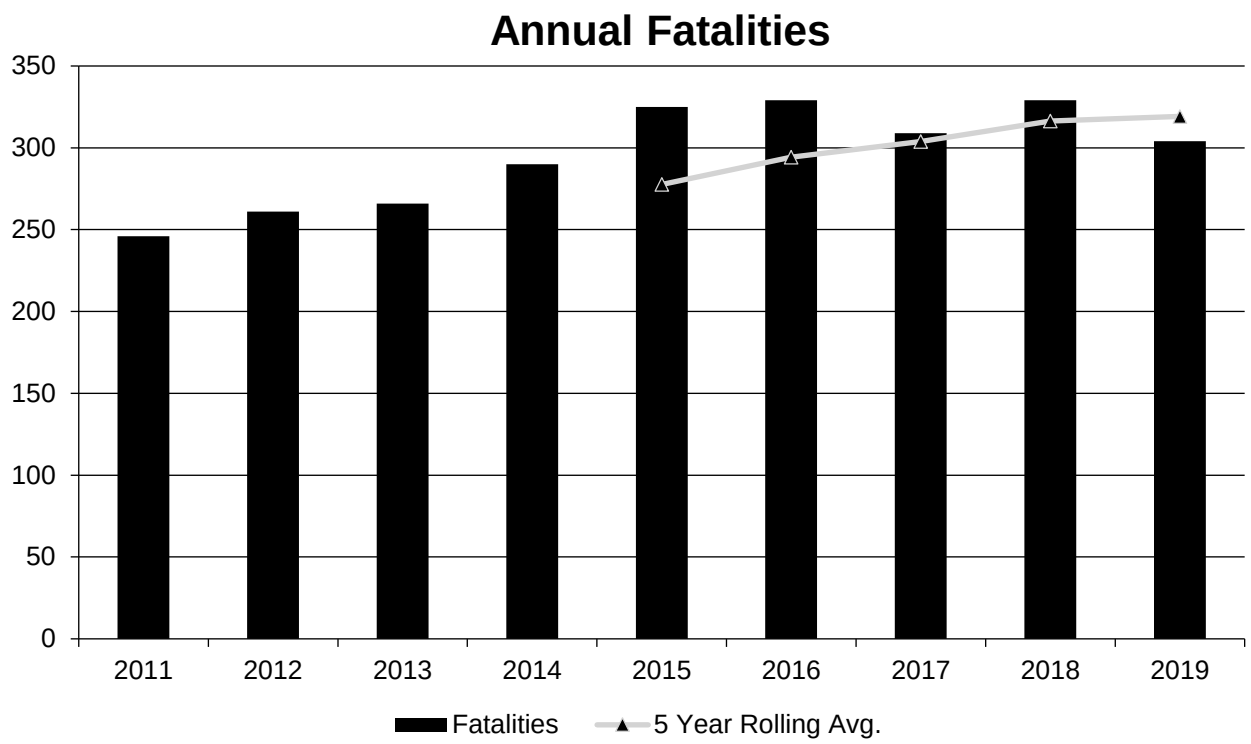
Used an average for the function class, speed and AADT for the multiple intersection locations where the retro-reflective borders were installed.
US 95 in Nye County project uses both HRRR funds (1,487,814)and HSIP funds ($455,185).
The project on McCarran included both intersection and pedestrian safety improvements, therefore we entered 2 lines for this one project.

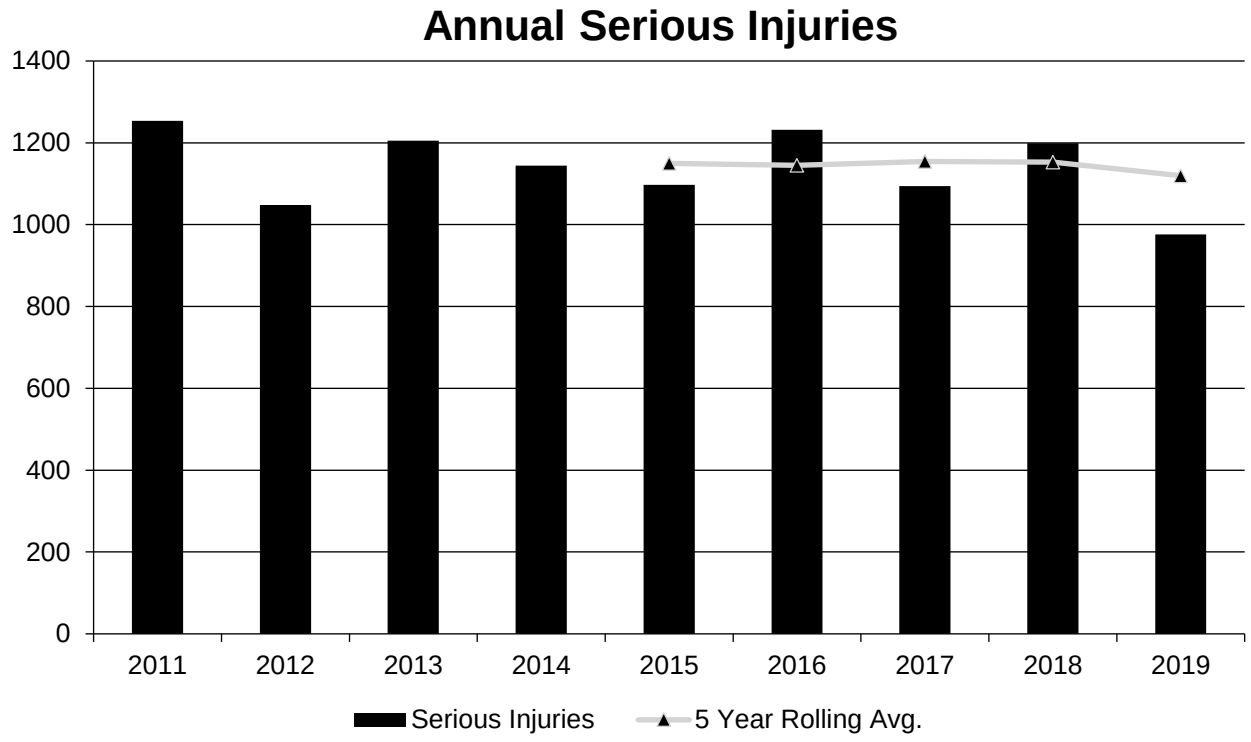
Safety Performance

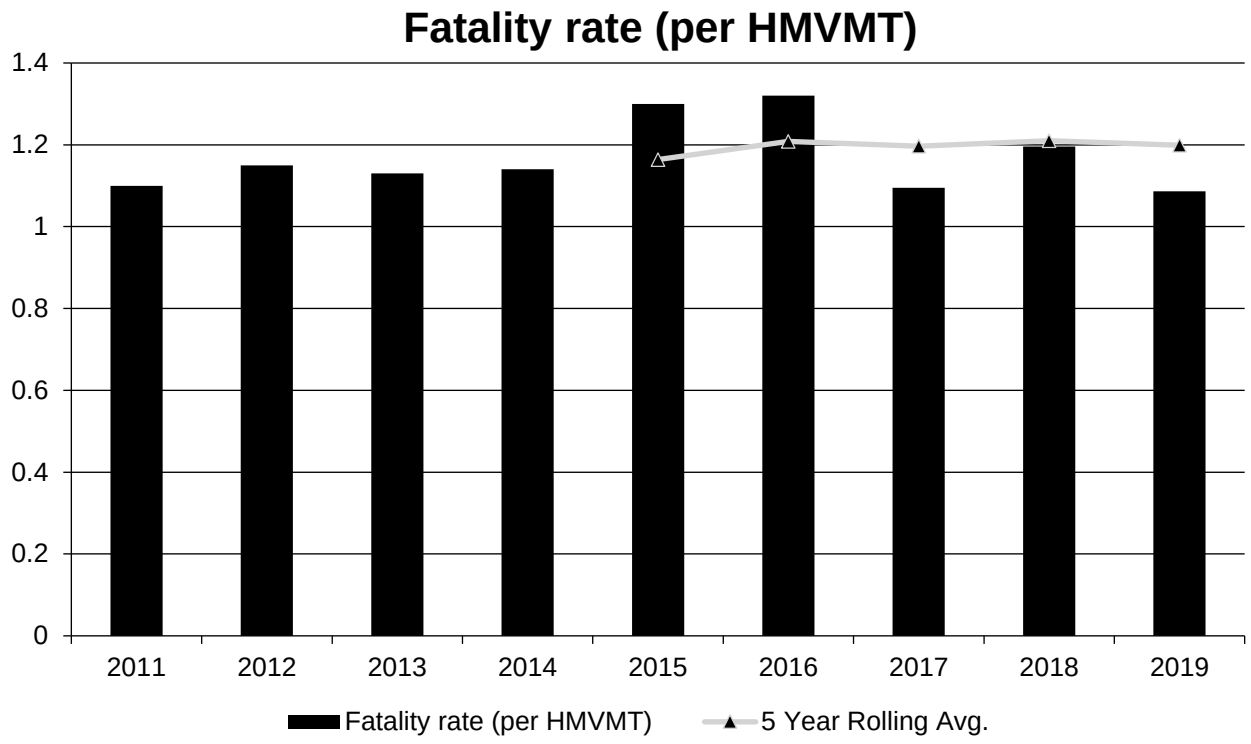
General Highway Safety Trends

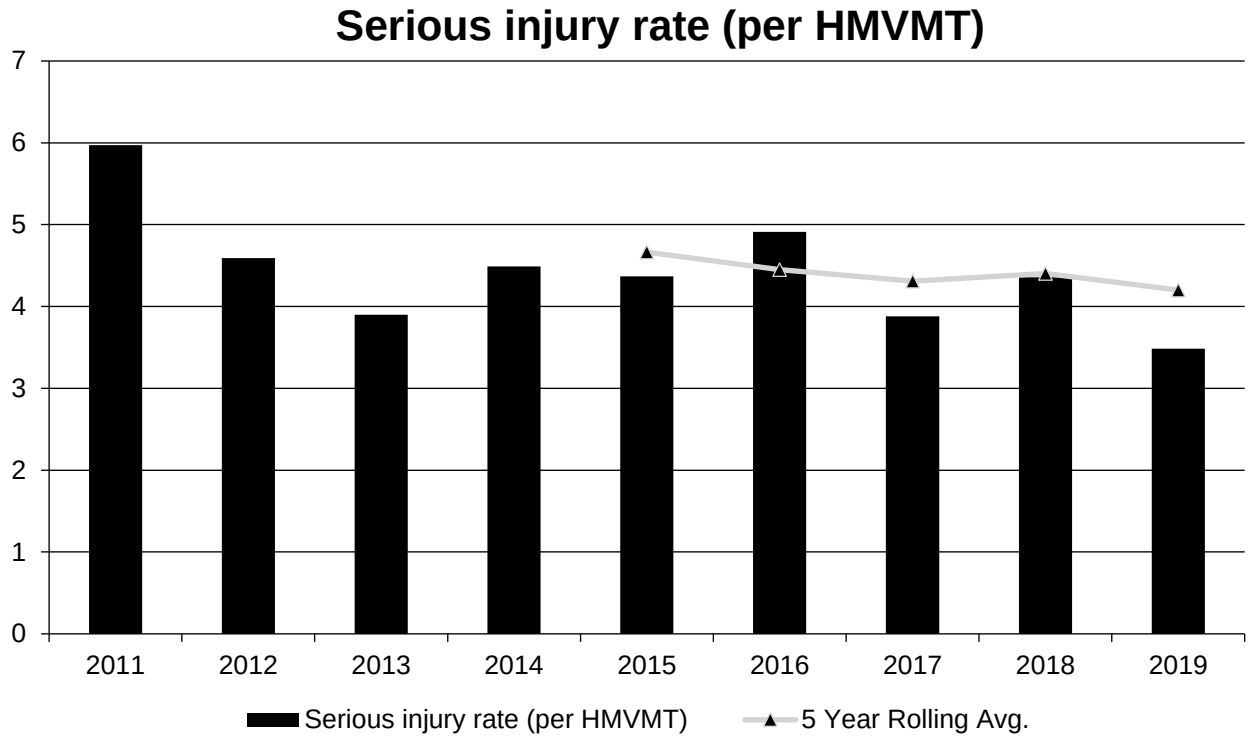
Present data showing the general highway safety trends in the State for the past five years.

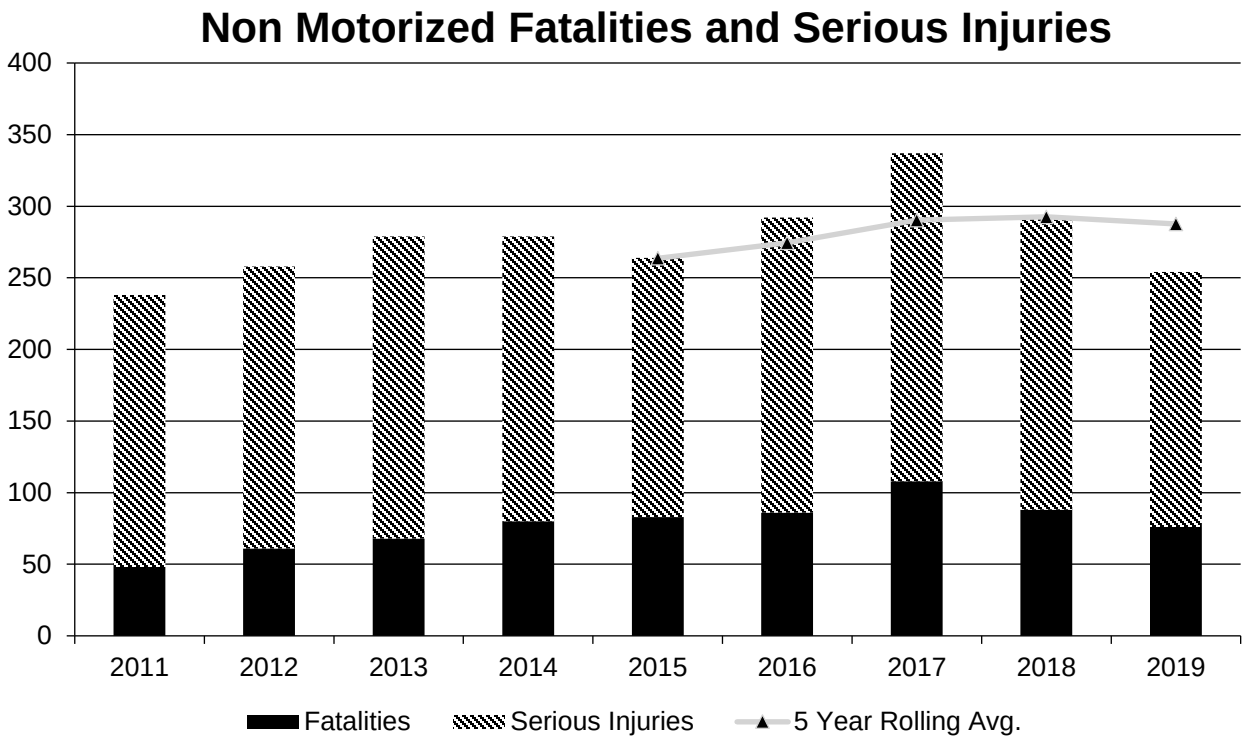
PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fatalities	246	261	266	290	325	329	309	329	304
Serious Injuries	1,254	1,048	1,205	1,144	1,097	1,232	1,094	1,199	976
Fatality rate (per HMVMT)	1.100	1.150	1.130	1.140	1.300	1.320	1.095	1.196	1.086
Serious injury rate (per HMVMT)	5.970	4.590	3.900	4.490	4.370	4.910	3.880	4.358	3.486
Number non-motorized fatalities	48	61	68	80	83	86	108	88	76
Number of non-motorized serious injuries	190	197	211	199	181	206	229	203	178


Annual Fatalities
350
300
250
200
150
100
50
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
1400
1200
1000
800
600
400
200
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2011
2012
2013
2014
2015
2016
2017
2018
2019
Fatality rate (per HMVMT)
5 Year Rolling Avg.


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



Describe fatality data source.

FARS

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

Year 2019

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	22		0.97	
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - Other	34.6		2.13	
Rural Minor Arterial	9.8		2.4	
Rural Minor Collector	2.6		1.85	
Rural Major Collector	9		2.49	

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	5.2		1.01	
Urban Principal Arterial (UPA) - Interstate	23.2		0.52	
Urban Principal Arterial (UPA) - Other Freeways and Expressways	8.6		0.48	
Urban Principal Arterial (UPA) - Other	61.6		1.87	
Urban Minor Arterial	92.2		1.8	
Urban Minor Collector	27.6		1.27	
Urban Major Collector	0	0	0	0
Urban Local Road or Street	21		0.44	

Year 2015

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				
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				

Due to an incomplete record of 2019 A-Type spatially located crashes, A-Type injuries will not be reported per function class in the 2020 HSIP report. NDOT Traffic Safety Engineering expects to have the issue resolved by the end of January 2021 and will share this data as appropriate.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2021 Targets *

Number of Fatalities:330.2

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

The target was set to meet Nevada's SHSP Zero Fatalities Interim Goal of reducing the 2004 to 2008 5-year moving average for each performance measure in half by 2030. The current trend was projected through 2021 and then reduced in 2021 based on a linear reduction to meet the 2030 Interim Goal.

Number of Serious Injuries:1154.7

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

The target was set to meet Nevada's SHSP Zero Fatalities Interim Goal of reducing the 2004 to 2008 5-year moving average for each performance measure in half by 2030. The current trend was projected through 2021 and then reduced in 2021 based on a linear reduction to meet the 2030 Interim Goal.

Fatality Rate:1.226

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

The target was set to meet Nevada's SHSP Zero Fatalities Interim Goal of reducing the 2004 to 2008 5-year moving average for each performance measure in half by 2030. The current trend was projected through 2021 and then reduced in 2021 based on a linear reduction to meet the 2030 Interim Goal.

Serious Injury Rate:3.835

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

The target was set to meet Nevada's SHSP Zero Fatalities Interim Goal of reducing the 2004 to 2008 5-year moving average for each performance measure in half by 2030. The current trend was projected through 2021 and set to equal the projected value since it is below the 2030 Interim Goal.

Total Number of Non-Motorized Fatalities and Serious Injuries:309.8

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

The target was set to meet Nevada's SHSP Zero Fatalities Interim Goal of reducing the 2004 to 2008 5-year moving average for each performance measure in half by 2030. The current trend was projected through 2021 and then reduced in 2021 based on a linear reduction to meet the 2030 Interim Goal.
Each target is set through a data driven process by extrapolating existing trends in the data through the target year of 2021 and then applying a reduction to meet Nevada's SHSP Interim Goal of reducing the 2004 to 2008 5-year moving average for each performance measure in half by 2030. The targets are realistic and achievable based on the reduction being representative of the current projects and strategies within the HSIP and SHSP.

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

In August 2020, the Chief of NDOT Traffic Safety Engineering reached out to RTC Southern Nevada, CAMPO and TRPA to demonstrate how we set safety performance targets. This presentation will be saved and shared

with other MPO's and stakeholders as appropriate. Targets are set using the 5 year moving average as vetted through the National Highway Traffic Safety Administration (NHTSA) and the FHWA.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2019 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	319.2	319.2
Number of Serious Injuries	1186.4	1119.6
Fatality Rate	1.209	1.199
Serious Injury Rate	4.970	4.201
Non-Motorized Fatalities and Serious Injuries	299.1	287.6

Actual 2019 performance measures were less than or equal to that the projected target values. This indicates that Nevada's mitigation strategies are working for the reporting period. NDOT Traffic Safety Engineering will continue to work with it partners in the areas of law enforcement, education and emergency medical response to keep trending downward. NDOT Traffic Safety Engineering will continue to manage and prioritize HSIP funds to improve the State Transportation System. Every life saved and every serious injury avoided lessens or eliminates the cost for society and reduces the demands on law enforcement, emergency medical services and trauma centers.

Applicability of Special Rules

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

Yes

$1,487,814.00 was programmed and obligated on a roadway rehabilitation project @ US 95 in Nye County for shoulder widening and slope flattening to reduce lane departure crashes.

Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.

PERFORMANCE MEASURES	2013	2014	2015	2016	2017	2018	2019
Number of Older Driver and Pedestrian Fatalities	37	37	46	55	53	62	63
Number of Older Driver and Pedestrian Serious Injuries	103	100	110	130	129	115	124

Reported data is still preliminary. It will not be finalized until FARS publishes finalized 2019 data.

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.

During this reporting period, the frequency of fatalities and serious injuries have decreased.

NDOT Traffic Safety Engineering focuses on developing projects that will reduce the numbers of fatalities and serious injuries using HSIP funds as outlined in the strategies and action items under the current CEAs of the Nevada SHSP.

Projects completed during this reporting period that are related to these emphasis areas were:

- Intersection safety projects in Sparks, Nevada at SR-659 (South McCarran Boulevard) at East Glendale Avenue and East Greg Street
- Pedestrian safety project in Sparks, Nevada on SR-659 (North McCarran Boulevard) from East Victorian Avenue to East Lincoln Way
- Pedestrian safety project on SR-447 through the Pyramid Lake Paiute Community of Wadsworth, Nevada
- Lane Departure safety projects on US-93 and US-95 which included truck climbing lanes, passing lanes, shoulder widening and slope flattening.

As a strategy under the Intersection CEA, NDOT Traffic Safety Engineering completed a systemic project in Washoe County that added retro-reflective borders to over 2000 signal heads.

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
- More systemic programs
- Policy change

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

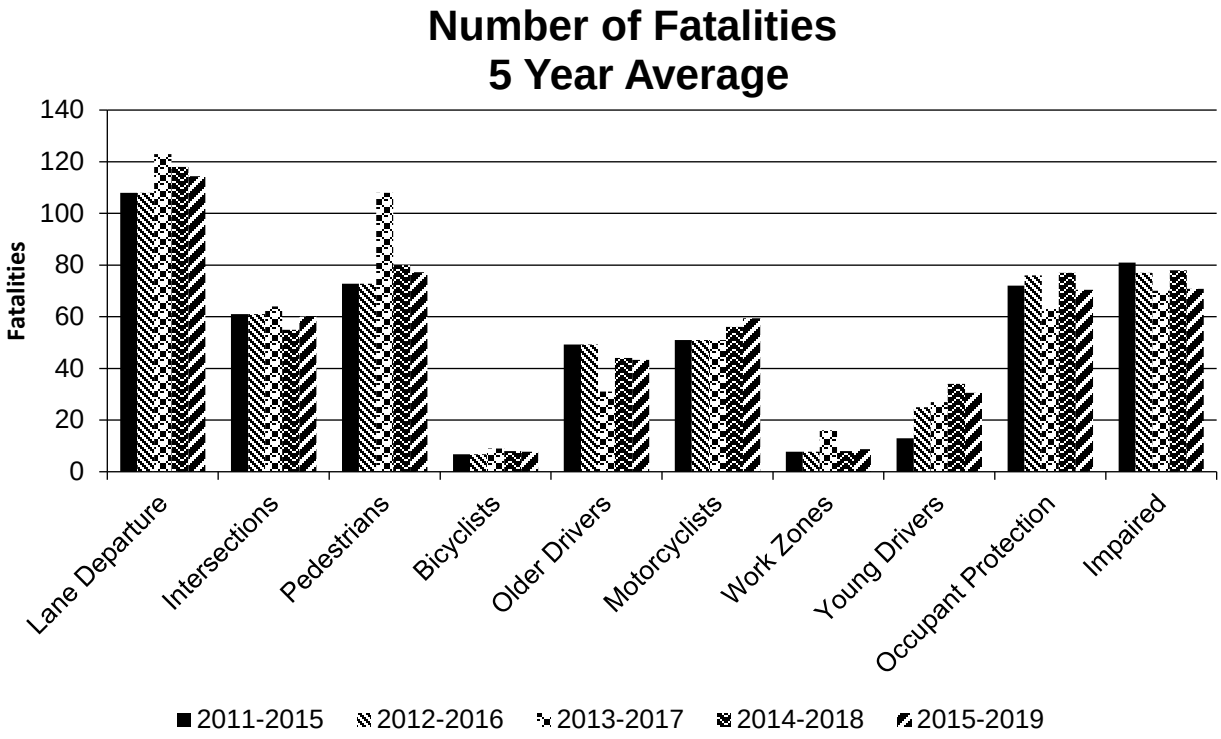
NDOT Traffic Safety Engineering is currently developing a new system for project delivery on local roadways. The team will be working with the FHWA and building of the current NDOT Local Public Agency program and the success of other states.

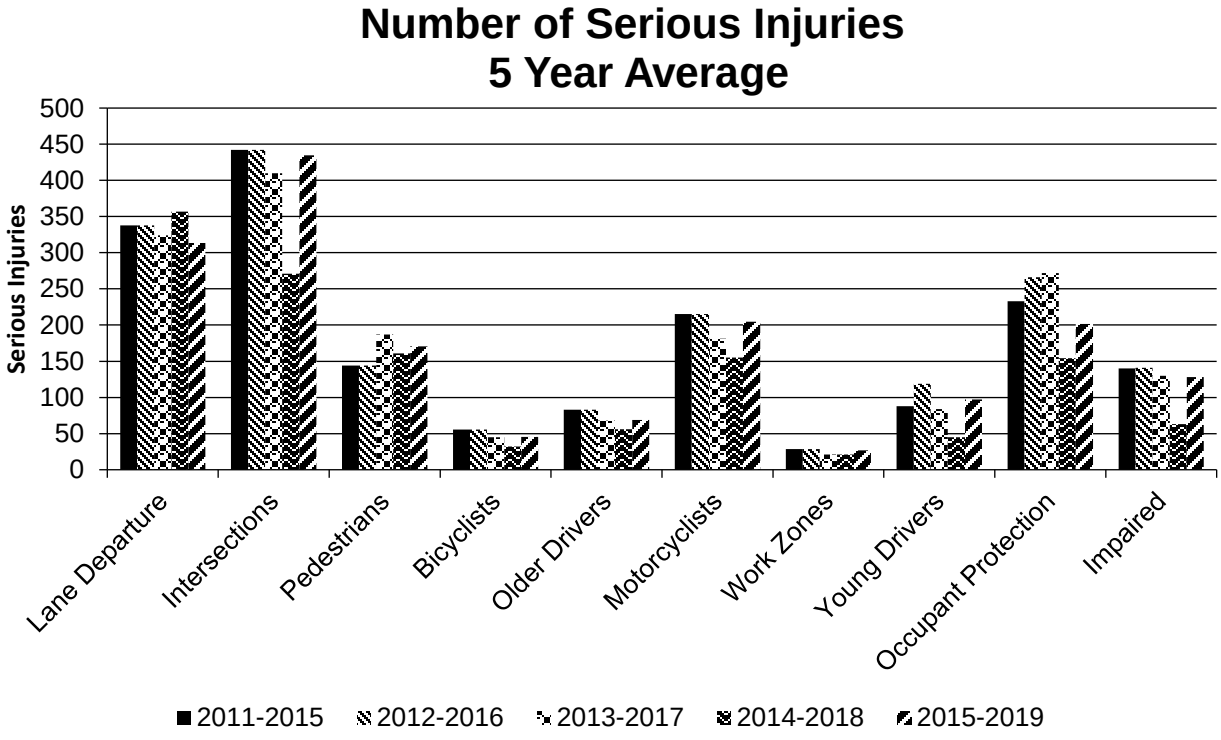
Effectiveness of Groupings or Similar Types of Improvements

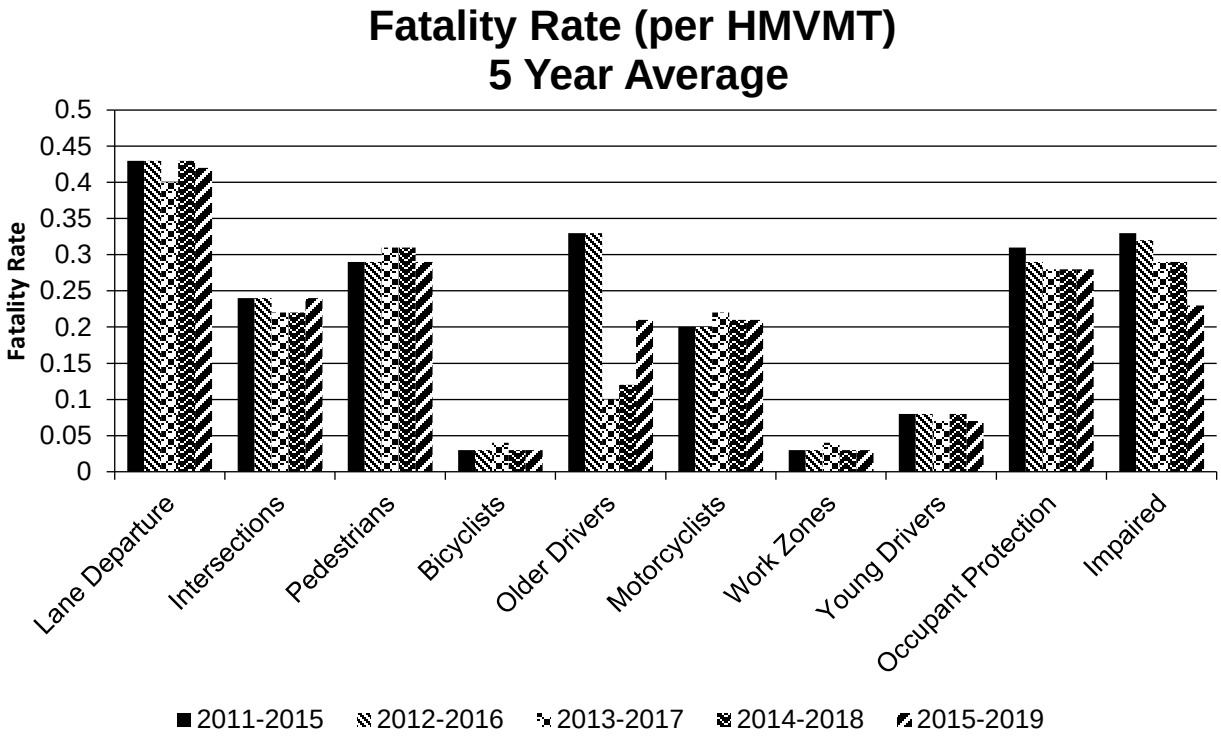
Present and describe trends in SHSP emphasis area performance measures.

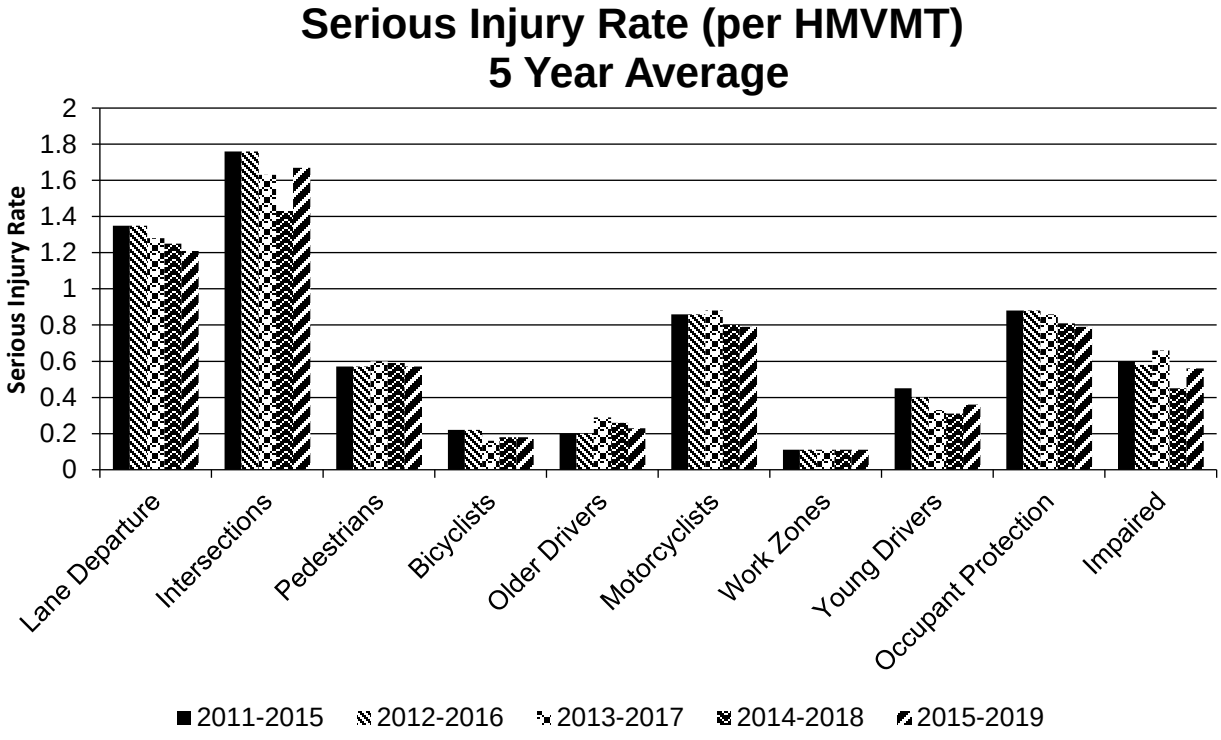
Year 2019

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Lane Departure		114.4	313.4	0.42	1.21
Intersections		60	434.8	0.24	1.67
Pedestrians		77.2	170.4	0.29	0.57
Bicyclists		7.72	45.36	0.03	0.18
Older Drivers		43.28	68.68	0.21	0.23
Motorcyclists		59.4	204.6	0.21	0.79
Work Zones		8.72	26.76	0.03	0.11
Young Drivers		30.6	97.2	0.07	0.36
Occupant Protection		70.4	201.4	0.28	0.79
Impaired		70.8	128.2	0.23	0.56


Number of Fatalities
5 Year Average
Fatalities
140
120
100
80
60
40
20
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Young Drivers
Occupant Protection
Impaired
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Number of Serious Injuries
5 Year Average
Serious Injuries
500
450
400
350
300
250
200
150
100
50
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Young Drivers
Occupant Protection
Impaired
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019





Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

During this reporting period NDOT Traffic Safety Engineering has started the following reports to evaluate countermeasure effectiveness:

- Roundabout Benefit Cost Analysis
- Complete Streets Before and After Analysis
- Implementing Wrong Way Driver Countermeasures
- Green Bike Sharrows Benefit Analysis

Project Effectiveness

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

2016 HSIP (before and after evaluation) will be reported in the 2021 HSIP report. FHWA has emphasized the critical value of having a full 3 years of after data. Project specific after data will not be available until after the 2020 HSIP reporting deadline.

Compliance Assessment

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

10/11/2016

What are the years being covered by the current SHSP?

From: 2016 To: 2020

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

2021

Nevada is developing the SHSP update with consultant support. The team is currently reviewing the structure, strategies and action steps. The COVID-19 pandemic has impacted the project schedule, but the team is confident that the new SHSP will be ready around the end of 2020.

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

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

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	100					100	100	100	100
	Route Number (8) [8]	100	100								
	Route/Street Name (9) [9]	100	100								
	Federal Aid/Route Type (21) [21]	100	100								
	Rural/Urban Designation (20) [20]	100	100					100	100		
	Surface Type (23) [24]	100	100								
	Begin Point Segment Descriptor (10) [10]	100	100					100	100	100	100
	End Point Segment Descriptor (11) [11]	100	100					100	100	100	100
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	75								
	Functional Class (19) [19]	100	100					100	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]	20	20								
	Access Control (22) [23]	45	45								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100								
	Average Annual Daily Traffic (79) [81]	100	100								
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120) [110]			100	100						
	Location Identifier for Road 1 Crossing Point (122) [112]			100	100						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	100						
	Intersection/Junction Geometry (126) [116]										
	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]										
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]										
	Location Identifier for Roadway at										

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]										
	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]										
	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):		**92.50**	**91.11**	**66.25**	**66.25**	**45.45**	**45.45**	**66.67**	**66.67**	**100.00**	**100.00**

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]
NDOT spent the reporting period identifying collection methods and securing funding to further MIRE FDE requirements.

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 has identified several proactive actions to meet the MIRE fundamental data elements deadline of September 30, 2026. Completed actions to at the time of reporting include: mapping of the overlap between HPMS and MIRE data elements, meeting with essential database management personnel to create a MIRE database utilizing structures outlined in MIRE in an effort to ensure the data is up-to-date, and identification of safety data gaps not addressed by MIRE, State, or Federal guidance. Process for identifying and expanding a record of crash, roadway, traffic and vehicle data on public roadways continue to be refined. Implementation of Road Video Lidar Data asset extraction will be will allow Nevada to develop a system for managing state owned assets. This is to start on October 1st, 2020. Collection prioritization will start with Federal-aid roads and then expand to non-Federal-aid roads. Once data is collected it will be implemented using MIRE data in safety tools and other methodologies. Once complete, evaluations shall include HSIP quality control measures that will ensure the accuracy of the State’s safety data and establish performance metrics.

Optional Attachments

Program Structure:

HSIP Flow Chart.pdf
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.