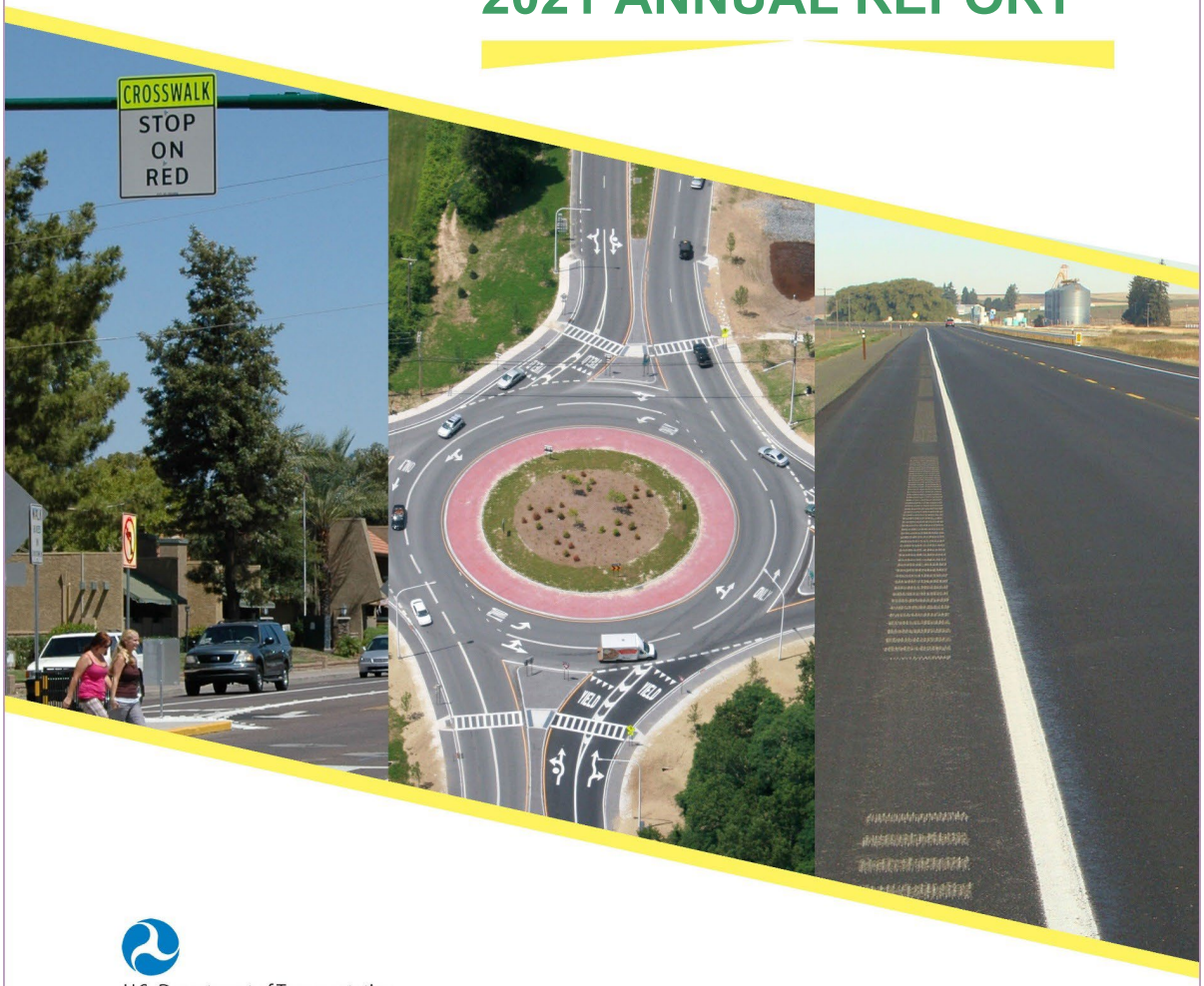
NEW MEXICO

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2021 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

Table of Contents

Disclaimer

Protection of Data from Discovery Admission into Evidence

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

23 U.S.C. 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 Highway Safety Improvement Program (HSIP) report is an annual update prepared by the Statewide Multimodal Planning and Programs Bureau (MPPB) of the New Mexico Department of Transportation (NMDOT) Planning Division (PD). The 2021 HSIP Annual Report is based on the best and most recently available transportation safety data and information, including projects contained in the Federal Fiscal Year (FFY) 2020 program. To facilitate a transparent stakeholder process, the NMDOT MPPB, for infrastructure-related and non-infrastructure-related improvements coordinates with internal and external safety partners in New Mexico. In the preparation of the HSIP, the MPPB is consistent with the Strategic Highway Safety Plan (SHSP), efforts related to the Highway Safety Plan (HSP), and the Commercial Vehicle Safety Plan (CVSP). This coordination helps to provide consistency of data presented in this report, integrated safety initiatives, consistent identification of performance trends, implementation of sound, best safety practices, and facilitation of safety performance assessment. This coordinated safety planning effort allows NMDOT to allocate limited safety dollars to areas with the greatest safety needs and to effectively support NMDOT goals, safety strategies, and performance targets to reduce fatalities and serious injuries on the state transportation system.

Overall, in New Mexico from the year 2016 to the year 2020, there was a 1.7 percent decrease in fatalities (405 to 398). It should be noted for this report that all 2020 fatality data represents a preliminary estimate of the data since FARS data was not available. The five-year moving average for fatalities increased from 2016 to 2020. A comparison of values of the five-year moving average indicates an increase of 13.2 percent in 2020 to 399.8 fatalities, compared to 353.2 fatalities in 2016. While the actual count of fatalities was relatively consistent from 2016 to 2020, the annual rate of fatalities in New Mexico had a slightly increasing trend in the same time period, from 1.452 to 1.680 (preliminary estimate) fatalities per 100 million vehicle miles traveled (VMT) - an increase of 15.7 percent.

Suspected serious injuries (A) declined by 28.1 percent from 1,153 to 829 during the same reporting period of 2016 to 2020. The number of reported serious injuries has a steady overall decline dating all the way back to 2010. Suspected serious injuries (A) are on a downward trend in New Mexico for the past five years (2016 to 2020) with a reduction in the five-year moving average from 1,333.8 to 1,050.2; a decrease of 12.9 percent. The annual rate of serious injuries in New Mexico declined from 2016 to 2020 from 4.135 to 3.499 (preliminary estimate) serious injuries per 100M VMT, or a reduction of 15.4 percent. The five-year moving average for serious injuries declined from 5.079 to 3.905 (preliminary estimate) serious injuries per 100M VMT, or a reduction of 23.1 percent.

Annual non-motorized fatalities and suspected serious injuries decreased between 2016 to 2020 (preliminary estimate) from 191 to 175, a decrease of 8.4 percent and an increase in the five-year rolling average of 11.7 percent (187.6 to 195.4).

In FFY 2021, NMDOT continued to make significant progress in successfully programming and obligating HSIP funds, as well as continued implementation of a process for funding and eliminating a backlog of projects for future years. This included programming of projects from previously completed Road Safety Audit (RSA) projects and construction of countermeasure recommendations in the HSIP annual program. In addition, NMDOT continued to use results from the completed network screening efforts conducted for urban and rural NMDOT maintained, non-interstate highways to identify candidate projects with a high crash concern. An additional network screening effort on the interstate mainline system is underway, performed by a consultant, and is expected to be complete by the Fall of 2021.

The most recent update of the NM Strategic Highway Safety Plan (SHSP) was approved and distributed to safety stakeholders in March 2017. The next update of the SHSP is scheduled for completion in 2021, again being performed by a consultant.

2021 New Mexico Highway Safety Improvement Program

In late March of 2020, the Federal Highway Administration (FHWA) completed a target achievement assessment of the five safety performance targets for the HSIP for New Mexico. FHWA advised NMDOT that New Mexico did not meet or make significant progress toward meeting at least four of the five safety performance targets to support the reduction of fatalities and serious injuries in the State. To address this issue, NMDOT developed an HSIP Implementation Plan, submitted to the FHWA in June 2021.

In early 2021, NMDOT finished the first draft of an HSIP Manual. When complete, the HSIP Manual will provide a comprehensive roadmap for the execution of the NMDOT HSIP, safety management process, and participation activities by safety stakeholders. Other efforts to improve the delivery of HSIP projects include improvements to the Linear Referencing System for roadway data; improved coordination with safety stakeholders and other agencies; and greater focus in identifying and developing initiatives to improve pedestrian and bicycle safety. As with many years in the past, NMDOT continued to augment staff with support from consultants in order to effectively manage the NMDOT HSIP program in 2021.

In the summer of 2021, NMDOT completed a report that stipulates the 2022 performance targets for each of the five core performance measures for fatalities (K), suspected serious injuries (A), fatality rate, suspected serious injury rate, and non-motorized fatalities and suspected serious injuries. This process was presented to MPOs and other safety stakeholders for feedback and comments.

Additionally, local road safety projects are a component in the HSIP, with $90,000 programmed and obligated to one local project for the FFY 2020 reporting period. This project focused on implementing pedestrian improvements between Mesa Road and 10th Street on Delgado Avenue in Valencia County.

The NMDOT HSIP includes a more detailed and extensive analysis of safety performance, Emphasis Areas, and strategies planned in HSIP projects. The intent of this is to effectively reduce fatalities and severe crashes on all roads, including local roads, in New Mexico. In order to achieve this, the NMDOT has plans to use consultant staff to develop safety analysis tools focusing for the local road system in the near future.

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 NMDOT Multimodal Planning and Programs Bureau continues to transition the HSIP into a more data- and analysis-based program. In late 2019, the MPPB worked with consultants to complete a Highway Safety Manual (HSM)-based network screening analysis of the NMDOT maintained non-interstate rural and urban roadway network. The screening effort included a review of roadway segments, intersections, and pedestrian sites, in order to identify and rank sites with a statistically high need, based on the potential to reduce fatal and serious injury crashes.

In summer 2020, the MPPB identified High-Risk Rural Road sites with high potential for safety improvements. After identifying these locations, the MPPB staff worked with the consultants to conduct a high-level, in-office, evidence-based diagnosis and countermeasure identification process. The next step is for the MPPB staff to work with NMDOT Districts and tribal and local public agencies to evaluate countermeasures for implementation in future projects.

For the summer 2021, MPPB is currently working with consultants to complete a Highway Safety Manual (HSM)-based network screening analysis of the NMDOT interstate network. The screening effort includes a review of interstate mainline segments to identify and rank sites with a statistically high need, based on the potential to reduce fatalities, A-injuries and B-Injuries.

Another work product completed in early 2021 is the first draft of a HSIP Manual. This manual describes NMDOT HSIP procedures and defines NMDOT's program for project development, statewide prioritization, and development of HSIP projects based on a data-driven process, using uniform, and objective criteria.

The structure of the HSIP program is multidisciplinary and at various levels includes NMDOT, tribal and local public agency stakeholders for those jurisdictions developing projects, with FHWA oversight and input as appropriate. The HSIP program is monitored by the NMDOT Safety Committee, which includes members from engineering, design, STIP, rail, and traffic from within NMDOT and the FHWA-NM Division office. The committee oversees project selection and allocation of funds to determine where the funds can be most efficiently utilized to optimize safety performance.

Where is HSIP staff located within the State DOT?

Other-Multimodal Planning and Programs Bureau

How are HSIP funds allocated in a State?

- Other-General Office review and approval from the NMDOT Safety Committee

The allocation process is moving more towards a competitive-based evaluation process, as there is now the ability to objectively compare segments from the network screening analysis by using the potential for safety improvement (PSI) metric.

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

Under the NM HSIP program all public roadways are eligible for participation. For the HSIP program covered in this reporting period (FFY 2020), there were three NM HSIP projects that had funds obligated or programmed for local roads or had Indian/Tribal involvement.

One of the projects with Indian/Tribal involvement carried an obligated HSIP cost of $569,980.27. The location of the project is roughly 40 miles north of Gallup on US-491 and it stretches from milepost 40.5 to 42 (1.5 miles). The major improvement for the rural project is to provide roadway lighting. This project is identifiable by control number (CN) 6100782.

The second project with Indian/Tribal involvement had an obligation of $31,500 and had CN 9900566. This project was a training program that focused on how to complete the updated uniform crash report (UCR). Sandia Pueblo PD was a tribal entity that received the training.

NMDOT also obligated $90,000 to a local project during the same reporting period. The project CN, as listed in the Statewide Transportation Improvement Program (STIP), is A301700. The project's improvement description is listed as constructing pedestrian improvements between Mesa Road and 10th Street on Delgado Avenue in Valencia County, while roadway and drainage improvements will be required to accommodate the new pedestrian facilities. Signage and striping will be added, as needed.

In general, the NMDOT Safety Committee reviewed all project applications and prioritized funding independent of project jurisdiction. Proposed HSIP projects on local and tribal maintained roadways were considered in the same manner as proposed projects on NMDOT roads.

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
- Local Aid Programs Office/Division
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety
- Other-Multimodal Planning and Programs Bureau

Describe coordination with internal partners.

The NMDOT Safety Committee meets as needed to review the HSIP and confirm the program is meeting the goals and objectives of the NM SHSP and safety targets. In general, the Safety Committee meets quarterly or

as multiple applications/Award Change requests have been received and need to be reviewed by the Safety Committee. The Safety Committee is composed of the following voting and advisory members:

Voting members:

- Design and Construction Director
- Planning Division Director
- Modals Division Director

Advisory members:

- HSIP Coordinator
- FHWA-NM Safety
- STIP Unit
- Technical Groups
- Rail Bureau Chief

The HSIP Coordinator also interacts closely with the three NMDOT Regional Design Centers to coordinate project tracking and oversight needs. In addition, the HSIP Coordinator, in overseeing the SHSP, liaisons closely with NMDOT Traffic Safety Division (in the Modals Division) which is responsible for the NMDOT Highway Safety Plan (HSP). The Modals Division Director is the NM representative to the Governor's Highway Safety Commission.

Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Law Enforcement Agency
- Local Government Agency
- Local Technical Assistance Program
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency
- Other-Consultants

Describe coordination with external partners.

All of the external partners listed in the previous question may be involved in the coordination process, particularly for conducting Road Safety Audits or Assessments (RSAs). Examples include data collection from local law enforcement and data management by academia, such as the University of New Mexico. Typically, as a part of RSAs, local partners are also involved in identifying location-specific outliers, lending their expertise and insights to safety related issues, as well as development of safety diagnosis and countermeasures. NMDOT finds local expertise invaluable when considering safety issues and needs, the identification of lessons learned related to the implementation of countermeasures, and identification of context sensitive issues whether they are cultural or behavioral. Consultants add support with many tasks, including focusing on scientific, data-driven approaches outlined in the Highway Safety Manual, assistance with miscellaneous HSIP tasks, review of potential HSIP projects, and Roadway Safety Management Process planning.

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

The NMDOT made significant progress in 2020 to program and obligate HSIP funds and to provide a systematic process for funding a backlog of projects. This includes maintenance of a structured list of RSAs planned and performed that will be used for future projects. As described above, the MPPB implemented a comprehensive and organized process of communication with internal and external stakeholders.

In 2020 the NMDOT continued to focus on programming and obligating projects identified by completed RSAs and Transportation Safety Plans. This is clearing out a backlog of projects and ensuring identified safety improvements are implemented. The NMDOT continues to engage internal and external stakeholders to put in place the tools that form the foundation of a data-driven HSIP based off the Roadway Safety Management Process.

Program Methodology

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

Yes

A consultant completed a task order to submit an HSIP Manual outlining best practices for implementing a Roadway Safety Management Process based HSIP. - That task order was completed in April 2021. However, NMDOT specific process and procedure information to the HSIP Manual and this effort will be executed by NMDOT staff. For this reason, the HSIP Manual is not publicly available and a copy of the HSIP Manual was not submitted on the Online Reporting Tool.

Select the programs that are administered under the HSIP.

- Intersection
- Pedestrian Safety
- Roadway Departure
- Other-Lighting
- Other-Rural Roadways

Program: Intersection

Date of Program Methodology:9/30/2020

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
- Fatal and serious injury crashes only
- Volume
- Roadside features
- Other-Intersection features

What project identification methodology was used for this program?

- Crash frequency
- Other-Crash Severity

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-NMDOT Selection Committee

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

Relative Weight in Scoring

Available funding:100
Total Relative Weight:100

Program: Pedestrian Safety

Date of Program Methodology:9/30/2020

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

- Other-Pedestrian crashes only

Exposure

Roadway

- Median width
- Roadside features

- Other-Intersection features

What project identification methodology was used for this program?

- Crash frequency
- Other-Pedestrian crashes only

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-NMDOT Selection Committee

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

Relative Weight in Scoring

Available funding:100
Total Relative Weight:100

Program: Roadway Departure

Date of Program Methodology:9/30/2020

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
- Other-KAB crashes only

Exposure

- Volume

Roadway

- Median width
- Horizontal curvature
- Roadside features

What project identification methodology was used for this program?

- Crash frequency
- Other-KAB crashes only

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-NMDOT Selection Committee

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

Relative Weight in Scoring

Available funding:100
Total Relative Weight:100

Program: Other-Lighting

Date of Program Methodology:9/30/2020

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes • Other-KAB crashes only		• Roadside features • Other-Intersection features

What project identification methodology was used for this program?

- Crash frequency
- Other-KAB crashes only

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-NMDOT Selection Committee

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

Relative Weight in Scoring

Available funding:100
Total Relative Weight:100

Program: Other-Rural Roadways

Date of Program Methodology:9/30/2020

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 • Other-KAB crashes only	• Volume	• Other-Qualified as Rural Area

What project identification methodology was used for this program?

- Crash frequency
- Other-KAB crashes only

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-NMDOT Selection Committee

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

Relative Weight in Scoring

Available funding:100
Total Relative Weight:100

What percentage of HSIP funds address systemic improvements?

48.5

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

- Other-Lighting Improvements
- Upgrade Guard Rails

The following CN's were considered systemic projects:

- 6100782
- 9900811
- 9900812
- 9900904

What process is used to identify potential countermeasures?

- Crash data analysis
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Stakeholder input

None

Does the State HSIP consider connected vehicles and ITS technologies?

No

At this time, the HSIP does not consider safety initiatives related to both connected vehicle technologies and ITS technologies - but it does consider ITS technologies. If a project were to be submitted with ITS-related

features, they would be considered on the same level as any other safety countermeasure. However, in this reporting period, there were no projects that included ITS-related technologies.

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

Yes

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

Applying the full cycle of the Roadway Safety Management Process (RSMP) to NMDOT HSIP efforts has been the goal for the past few years (see figure below). The NMDOT finished the first round of the network screening process for non-freeway routes that had non-zero AADT values and is currently working on the network screening effort for interstate mainlines. These analyses are guided by the approaches included in the Highway Safety Manual. Other efforts include diagnosis and countermeasure selection and the NMDOT preparing the data needed to incorporate the next steps of the RSMP.

The completed and on-going network screening efforts focus on identifying sites with high potential for safety improvement (PSI) using excess expected crash frequency with Empirical Bayes adjustment as a performance measure. In Fall 2019, a total of seven Safety Performance Functions (SPFs) were developed for the most common urban and rural, non-freeway roadway facility types. Similar studies are completed for intersections and pedestrian corridors. Eight SPFs were developed for interstate mainlines during the summer 2021 effort. These SPFs were constructed based on three features: 4-lanes or 6-lanes, high speed or low speed, and KAB or KABCO crashes.

Diagnostic studies are completed to help identify the probable cause and possible countermeasures to improve the safety of the screened locations. A map of geo-tagged data visualizations is provided to show the distribution of crash types, crash severities, and other crash characteristics to help with diagnostics at each location.

The results of diagnostics are used to identify possible countermeasures on the top-ranked locations based on the network screening process. These locations are listed as candidates for future RSAs, HRRR locations, and/or future HSIP projects.

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

Since the last Annual Report's reporting period, NMDOT's consultant finished their work on an HSIP Manual. In summer 2021, the HSIP Planner position was filled within Multimodal Planning and Programs Bureau - a position that had been vacant for many years. The NMDOT continues to hold internal discussions on the progress of the design and conduct of the HSIP, which helped create an awareness of safety needs and long-term goals.

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)	$24,654,233	$25,292,427	102.59%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$3,519,848	$3,519,848	100%
Penalty Funds (23 U.S.C. 154)	$626,160	$626,160	100%
Penalty Funds (23 U.S.C. 164)	$2,393,804	$2,259,939	94.41%
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	$31,194,045	$31,698,374	101.62%

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

$436,500

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

$691,480

A total of $436,500 is programmed to projects that have local ownership or have Tribal/Indian involvement. The three projects are briefly mentioned below.

$315,000 for CN - 6100782 which includes Tribal/Indian involvement and improves the lighting along the project corridor.
$90,000 for CN - A301700 which has an ownership of Other Local Agency and includes pedestrian, roadway and drainage improvements.
$31,500 for CN - 9900566 which included Sandia Pueblo PD is a training seminar that focused on how to complete the updated UCR.

A total of $691,480.27 is obligated to the three projects mentioned in the first part of this question.
$569,980.27 for CN - 6100782

$90,000 for CN - A301700
$31,500 for CN - 9900566

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

$2,165,212

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

$2,102,912
A total of $2,165,212 is programmed and $2,102,912.23 is obligated to projects that are considered to be non-infrastructure safety projects. The CNs for these projects are: · 6101390
· 9900541
· 9900554
· 9900561
· 9900562
· 9900563
· 9900564
· 9900566
· 9900560

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

0%

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

0%
None.

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

In some instances, project development and delivery took longer than originally anticipated, which affected timing for obligation of funds for projects. Improvements in project scoping and improvements in crash data analysis can help mitigate this issue. Building off of the improvements in crash data leads to better data analysis, which leads to better network screening results. In turn, better HSIP projects can be obligated with a more objective evaluation process.

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

To augment efforts for the HSIP program and annual report preparation, NMDOT continues to utilize consultant support. Additionally, within the Multimodal Planning and Program Bureau, the HSIP Planner position has been filled after years of vacancy.

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
1101450 - Final Phase of US 180 urban project in Silver City,	Intersection geometry	Intersection geometry - other	8	Intersections	$3375000	$5522556	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	11,699	35	State Highway Agency	Spot	Intersections	-Improve right/left-turn channelization -Revise geometry of complex intersection designs -Realign intersection approaches to reduce
1101800 - Santa Clara Multimodal Project	Pedestrians and bicyclists	Pedestrians and bicyclists – other	2.5	Miles	$2479023	$4119046	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	11,699	55	State Highway Agency	Spot	Pedestrians	-Install or upgrade traffic/pedestrian signals, refuge islands, and raised medians based on the identified need
2104350 - Intersection of Indian Wells and White Sands Realignment	Pedestrians and bicyclists	ADA curb ramps	12	Ramps	$2588756.17	$3700000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	16,391	45	State Highway Agency	Spot	Pedestrians	-Provide Americans with Disabilities Act (ADA)-compliant sidewalks/ walkways/trails, crosswalks, and curb ramps at locations with identified needs
6100782 - 40 MILES NORTH OF GALLUP	Lighting	Continuous roadway lighting	28	Lights	$569980.27	$633311.41	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	3,968	65	State Highway Agency	Systemic	Pedestrians	- Implement street lighting and other measures to improve conspicuity and visibility of pedestrians
6101390 - I-40/ US 491 Interchange	Miscellaneous	Data analysis	1	Study	$494915.12	$1700000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	26,903	65	State Highway Agency	Spot	Data	- Provide/improve right/left-turn channelization -Revise geometry of

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
															complex intersections -Realign intersection approaches to improve skew angle
9900811 - Metal Beam Guardrail	Roadside	Barrier- metal	23	Miles	$3094176	$8173713	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	19,032	65	State Highway Agency	Systemic	Roadway Departure	Improve and, if needed, upgrade the design of roadside hardware and application of barrier and impact attenuation systems
9900812 - Metal Beam Guardrail	Roadside	Barrier- metal	65.5	Miles	$7574037.83	$10440282	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	23,631	75	State Highway Agency	Systemic	Roadway Departure	Improve and, if needed, upgrade the design of roadside hardware and application of barrier and impact attenuation systems
9900812 - Metal Beam Guardrail	Roadside	Barrier- metal	65.5	Miles	$626160	$10440282	Penalty Funds (23 U.S.C. 154)	Rural	Principal Arterial-Interstate	23,631	75	State Highway Agency	Systemic	Roadway Departure	Improve and, if needed, upgrade the design of roadside hardware and application of barrier and impact attenuation systems
9900812 - Metal Beam Guardrail	Roadside	Barrier- metal	65.5	Miles	$183592	$10440282	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Interstate	23,631	75	State Highway Agency	Systemic	Roadway Departure	Improve and, if needed, upgrade the design of roadside hardware and application of barrier and impact

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
															attenuation systems
9900904 - Guardrail Replacement	Roadside	Barrier- metal	13	Miles	$3330000	$3700000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	7,269	75	State Highway Agency	Systemic	Roadway Departure	Improve and, if needed, upgrade the design of roadside hardware and application of barrier and impact attenuation systems
A300191 - NM 314 & COURTHOUSE RD INTERSECTION IMPROVEMENTS	Intersection geometry	Intersection geometry - other	1	Intersections	$1696538.61	$6055000	HSIP (23 U.S.C. 148)	Urban	Major Collector	8,435	30	State Highway Agency	Spot	Intersections	- Provide/improve left-turn channelization - Provide/improve right-turn channelization -Revise geometry of complex
A301700 - Delgado Avenue Roadway & Pedestrian Improvements	Pedestrians and bicyclists	Install sidewalk	0.33	Miles	$90000	$822223	HSIP (23 U.S.C. 148)	Urban	Major Collector	1,285	25	Other Local Agency	Spot	Pedestrians	Provide Americans with Disabilities Act (ADA)-compliant sidewalks/ walkways/trails, crosswalks, and curb ramps at locations with identified needs
NM 187 Bridge Replacement	Roadway	Roadway - other	6	Bridges	$3519848	$15335670	HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Major Collector	844	45	State Highway Agency	Spot	Roadway Departure	Apply shoulder treatments, such as eliminate shoulder drop-offs, incorporate safety edge, and widen and/or pave shoulders.
Traffic Records Coordination	Miscellaneous	Data analysis	1	Traffic Records Coordination	$177461.11	$597307	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement

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
Crash data software upgrades	Miscellaneous	Data analysis	1	Computer Software	$43200	$58000	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement
New Mexico State Police	Miscellaneous	Data analysis	1	Computer Software	$698400	$816594	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement
Dona Ana County Sheriff Office TRACS	Miscellaneous	Data analysis	1	Computer Software	$274500	$460000	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement
Administrative Office of the Courts	Miscellaneous	Data analysis	1	Computer Software	$225000	$300000	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement
Iowa DOT (TraCS Licensing)	Miscellaneous	Data analysis	1	Computer Software	$147600	$168000	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement
US 70 Sign Replacement	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	31	Miles	$191941.53	$350000	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Interstate	17,667	75	State Highway Agency	Spot	Roadway Departure	Improve and, if needed, upgrade the design of roadside hardware and application of barrier and impact attenuation systems
US 70 Sign Replacement	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	36.5	Miles	$276408.79	$250000	Penalty Funds (23 U.S.C. 164)	Urban	Principal Arterial-Other	40,474	55	State Highway Agency	Spot	Roadway Departure	Improve and, if needed, upgrade the design of roadside hardware and application of barrier and impact attenuation systems
South West Training Consultants (SWTC)	Miscellaneous	Training and workforce development	1	Training	$31500	$35000	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement
H164 project set-aside funding	Miscellaneous	Data analysis	1	Computer Software	$10336	$11484	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0	0	State Highway Agency	Data-Related	Data	Data Improvement

2021 New Mexico Highway Safety Improvement Program

The project list for FY2020 was uploaded into the Online Reporting Tool using the Microsoft Excel template. This project list includes a project with project title “Metal Beam Guardrail” and had CN - 9900812. This particular project had three type of funding categories utilized: HSIP Funds (23 U.S.C. 148), Penalty Funds (23 U.S.C. 154), and Penalty Funds (23 U.S.C. 164).

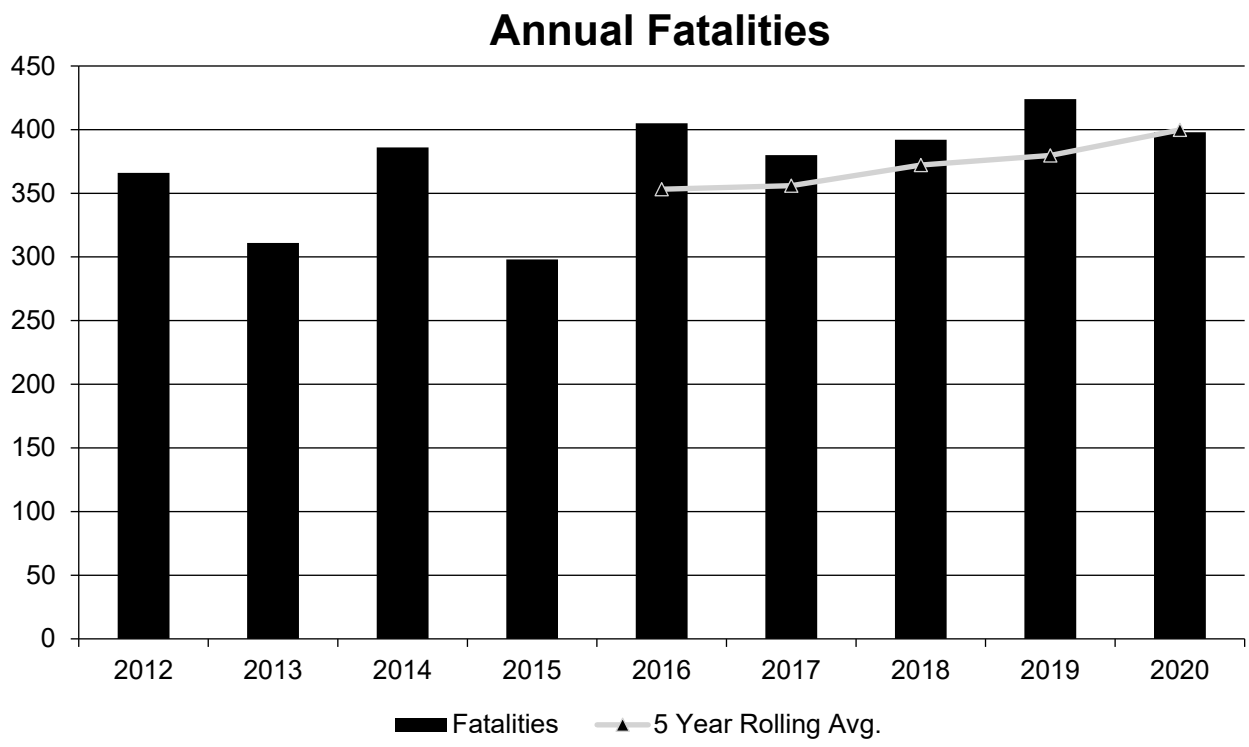
In order to include all funds that were obligated for FY2020, this project was listed three times in the project list. One row represents the HSIP Funds (23 U.S.C. 148) funding category for $7,574,037.83, another row represents Penalty Funds (23 U.S.C. 154) for $626,160.00, while another row represents the Penalty Funds (23 U.S.C. 164) funding category for $183,592.00.

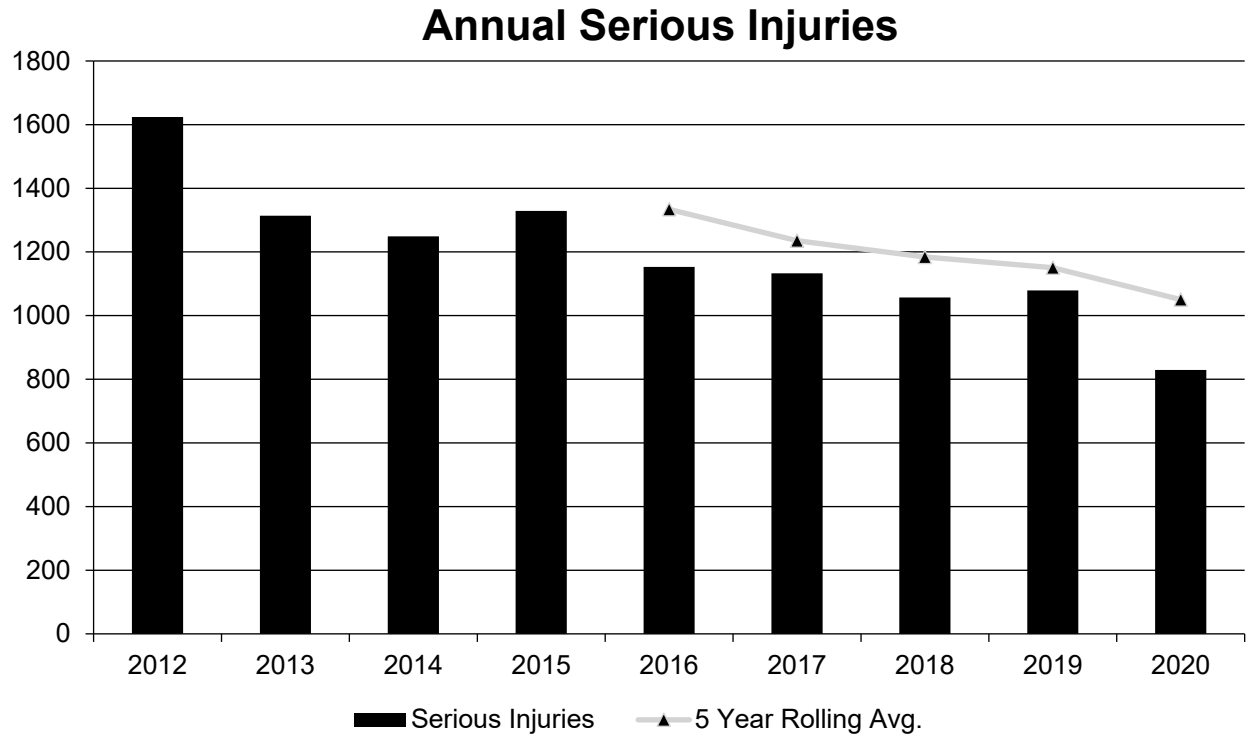
Safety Performance

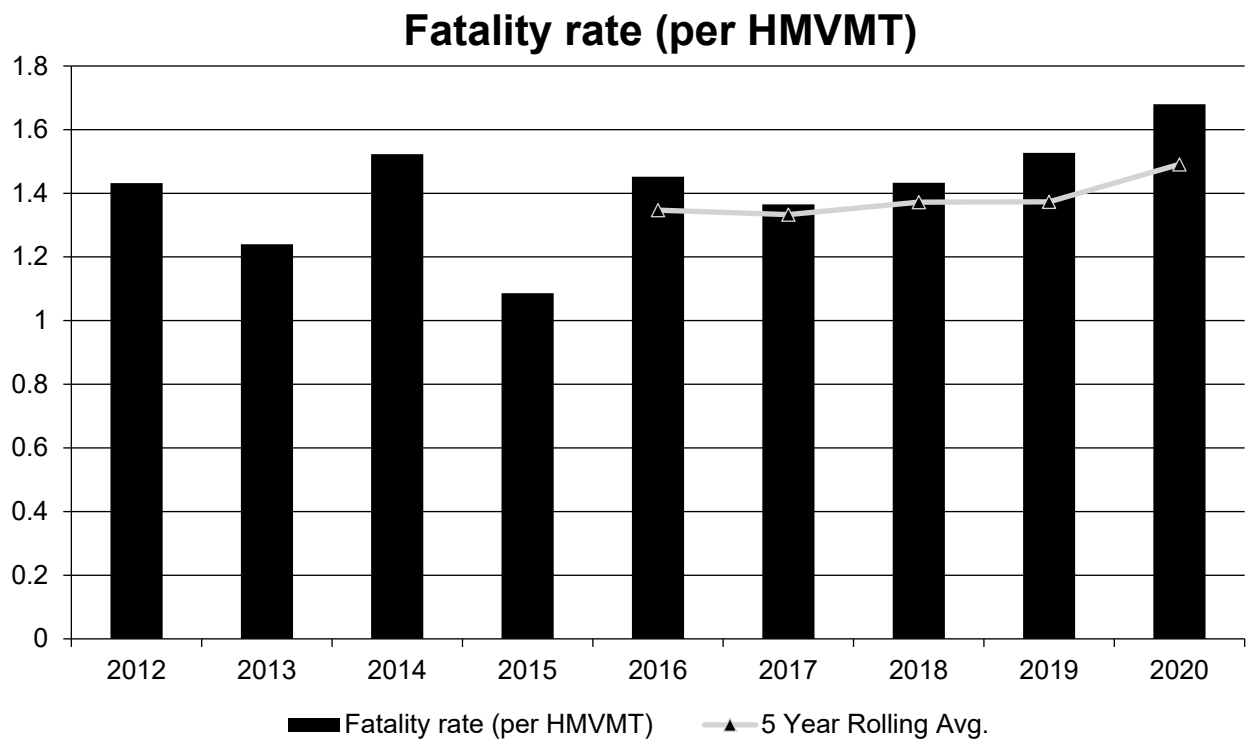
General Highway Safety Trends

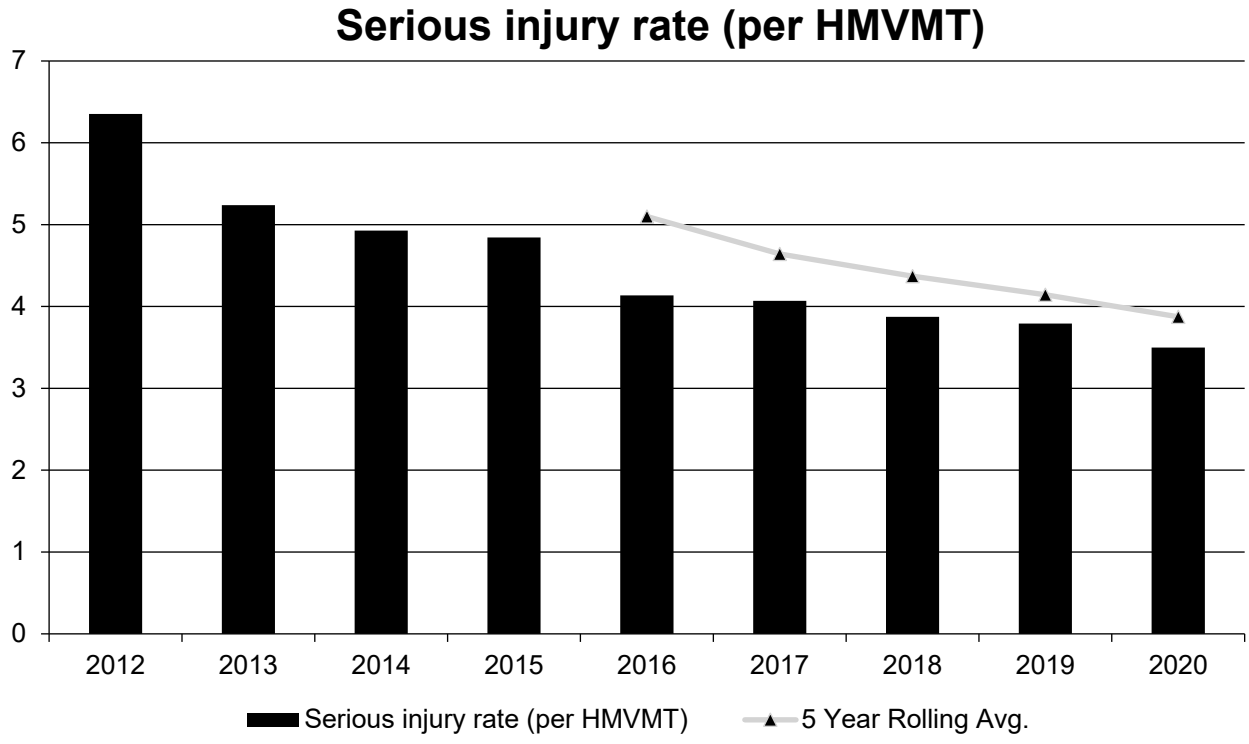
Present data showing the general highway safety trends in the State for the past five years.

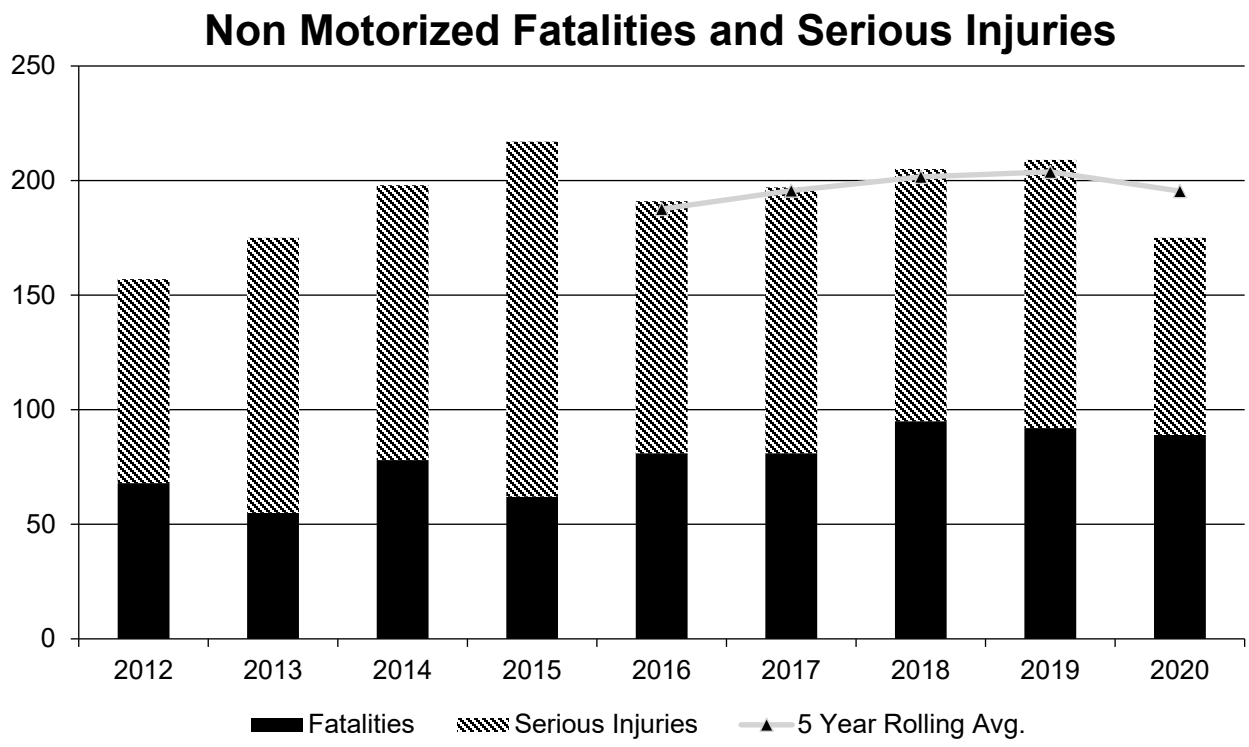
PERFORMANCE MEASURES	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fatalities	366	311	386	298	405	380	392	424	398
Serious Injuries	1,624	1,314	1,249	1,329	1,153	1,133	1,057	1,079	829
Fatality rate (per HMVMT)	1.432	1.240	1.523	1.086	1.452	1.365	1.433	1.527	1.680
Serious injury rate (per HMVMT)	6.353	5.238	4.928	4.844	4.135	4.070	3.873	3.792	3.499
Number non-motorized fatalities	68	55	78	62	81	81	95	92	89
Number of non-motorized serious injuries	89	120	120	155	110	116	110	117	86
non-motorized fatalities and serious injuries	157	175	198	217	191	197	205	209	175

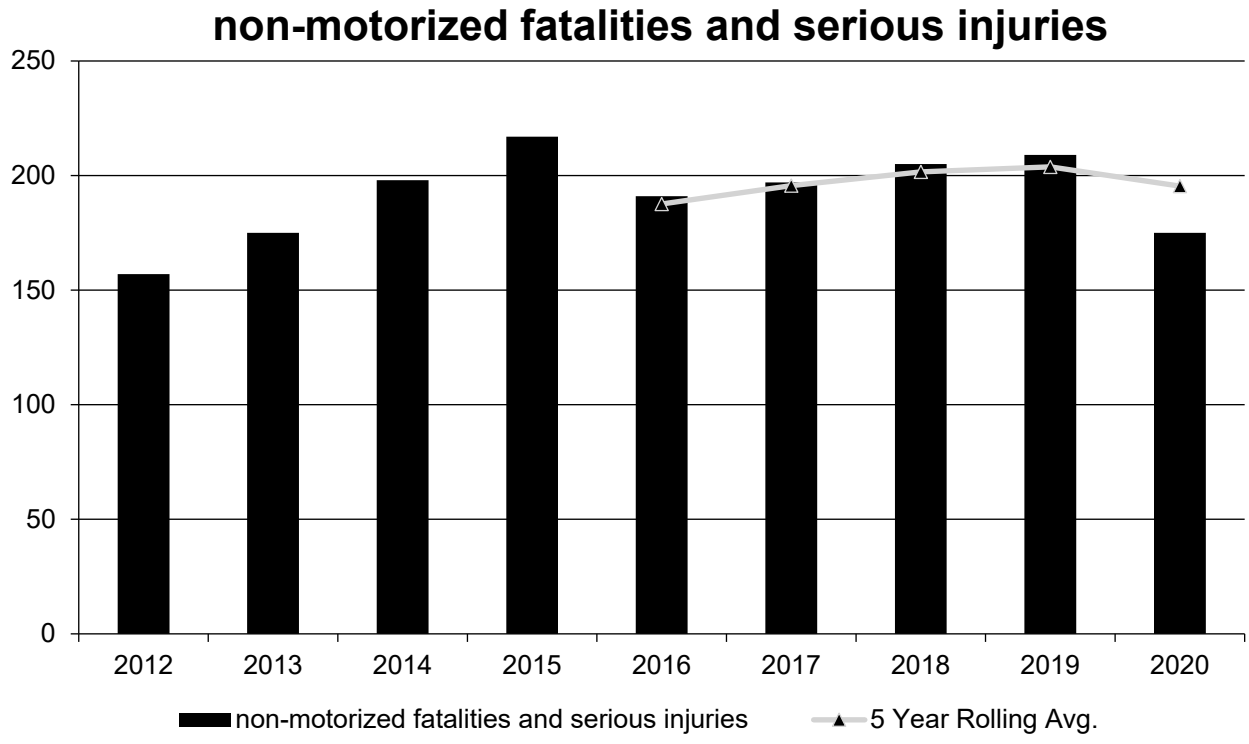

Annual Fatalities
450
400
350
300
250
200
150
100
50
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
1800
1600
1400
1200
1000
800
600
400
200
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
7
6
5
4
3
2
1
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
Serious injury rate (per HMVMT)
5 Year Rolling Avg.





- The value for the 2018 fatalities has changed since the summer of 2020. It was previously listed as 391 and has been changed to 392.
- The value for the 2019 A-Injuries has changed since the summer of 2020. It was previously listed as 1,053 and has been changed to 1,079.

- The value for the 2019 A-Injury rate changed since the summer of 2020. It was previously listed as 3.882 and has been changes to 3.885.
- The value for the 2019 non-motorized fatalities and serious injuries has changed since the summer of 2020. It was previously listed as 200 and has been changed to 209. Changes have also been made to the fatal and A-Injury values in 2019.
- The data used for 2020 is provisional.

Describe fatality data source.

FARS

The source for the 2020 fatality values is the NMDOT crash dataset prepared by UNM. FARS does not have 2020 fatality data published at the time of filling out this report, so the UNM dataset was used as a supplement. All non-2020 fatality data is based on 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	57	82	1.25	1.8
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - Other	55.6	82	1.46	2.14
Rural Minor Arterial	31.8	53	1.72	2.85
Rural Minor Collector	9	11	1.8	2.27
Rural Major Collector	37.4	68	2.26	4.12
Rural Local Road or Street	22.2	43.4	0.53	1.04
Urban Principal Arterial (UPA) - Interstate	32	95.2	1.19	3.49
Urban Principal Arterial (UPA) - Other Freeways and Expressways	1	3.8	0.88	3.29
Urban Principal Arterial (UPA) - Other	97.6	357.6	2.74	10.08

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)**
Urban Minor Arterial	23.6	105	1.52	6.6
Urban Minor Collector	2	8.8	0.86	3.81
Urban Major Collector	11.6	57.2	1.21	5.95
Urban Local Road or Street	10.4	63	1.18	7.67

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	270.2	562.2	31.98	3.1
County Highway Agency	34.2	105.4	6.17	2.99
Town or Township Highway Agency	0	0.2	0	0
City or Municipal Highway Agency	80	355	9.06	6.11
State Park, Forest, or Reservation Agency	0	0	0.02	0
Local Park, Forest or Reservation Agency	0	0	0	0
Other State Agency	0	0	0	0
Other Local Agency	0	0	0.01	0
Private (Other than Railroad)	0.6	1.4	1.18	0.24
Railroad	0	0	0	0
State Toll Authority	0	0	0	0
Local Toll Authority	0	0	0	0
Other Public Instrumentality (e.g. Airport, School, University)	0	0	0	0
Indian Tribe Nation	5.4	3.8	1.93	0.49

Provide additional discussion related to general highway safety trends.

See inputs in the comments section for each performance target in Question #34.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2022 Targets *

Number of Fatalities:421.9

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

The five-year average fatalities increased by 13.2 percent between 2016 and 2020. Using preliminary data for 2020 and projected data for 2021 and 2022, it is expected that fatalities will increase by roughly 13.4 percent between 2018 and 2022. In 2019, fatalities involving large, personal vehicles (Pick-up Trucks/Vans/SUVs/4-Wheel Drives) or involving pedestrians/pedalcyclists accounted for 55.3 percent of all crash fatalities. In 2020, this same focus group accounted for 59.0 percent of all fatalities. Given the prevalence of large, personal vehicle ownership and projected increase in fatalities overall, the five-year average projection of 421.9 fatalities is determined to be the 2022 target.

The basis for projecting the safety performance targets are based on a linear best fit line that is reliant on actual New Mexico data from prior years. The projection of linear best fit lines was used to obtain the FFY2022 targets. These targets are supported by the 2016 New Mexico SHSP goals since they are data-driven and generated with a collaborative approach.

Number of Serious Injuries:1030.5

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

Preliminary suspected serious injury numbers show a decrease of roughly 23% from 2019 to 2020. This can partially be attributed to lower VMT in 2020, due to the COVID-19 pandemic. In order to adjust to these fluctuations, we will use the targets that were set in the summer of 2020, prior to any COVID-19 considerations and impacts, leaving the state with a five-year average projection of 1,030.5 as the 2022 target.

The basis for projecting the safety performance targets are based on a linear best fit line that is reliant on actual New Mexico data from prior years. The projection of linear best fit lines was used to obtain the FFY2022 targets. These targets are supported by the 2016 New Mexico SHSP goals since they are data-driven and generated with a collaborative approach.

Fatality Rate:1.645

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

Five-year average fatalities are expected to increase in 2022 from 2018, thus the projected five-year average of 1.645 fatalities per HMVMT is the 2022 target.

The basis for projecting the safety performance targets are based on a linear best fit line that is reliant on actual New Mexico data from prior years. The projection of linear best fit lines was used to obtain the FFY2021 targets. These targets are supported by the 2016 New Mexico SHSP goals since they are data-driven and generated with a collaborative approach.

Serious Injury Rate:3.824

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

The five-year average projection set in the 2021 PM Targets Report of 3.824 A-Injuries per HMVMT is also the 2022 target. Preliminary VMT numbers show a decrease of roughly 15% from 2019 to 2020, which can partially be attributed to the COVID-19 pandemic. In order to adjust to these fluctuations, we will use the targets that were set in the summer of 2020, prior to any COVID-19 considerations and impacts.

The basis for projecting the safety performance targets are based on a linear best fit line that is reliant on actual New Mexico data from prior years. The projection of linear best fit lines was used to obtain the FFY2022

targets. These targets are supported by the 2016 New Mexico SHSP goals since they are data-driven and generated with a collaborative approach.

Total Number of Non-Motorized Fatalities and Serious Injuries:190.6

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

Five-year average non-motorized fatalities and serious injuries are projected to remain relatively constant over the next two years from 2021 to 2022. The five-year average projection of 190.6 is the 2022 target. The basis for projecting the safety performance targets are based on a linear best fit line that is reliant on actual New Mexico data from prior years. The projection of linear best fit lines was used to obtain the FFY2022 targets. These targets are supported by the 2016 New Mexico SHSP goals since they are data-driven and generated with a collaborative approach.

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

Development of improved data quality can help all safety stakeholders to identify and establish more realistic and well-defined safety targets. Communicating concerns like this to other stakeholders helps facilitate improved safety initiatives. On June 24, 2021, the NMDOT Traffic Safety Bureau held a meeting with stakeholders to discuss, review, and adopt the data and targets required in the HSP target setting effort. MPPB staff then presented the proposed targets to the MPOs at a virtual meeting for feedback and provided a memo to the MPOs requesting written comments.

Does the State want to report additional optional targets?

No

Consistent with the SHSP, the NMDOT will continue to focus on reducing fatalities and serious injuries in New Mexico, with consideration of guidance provided by the FHWA and federal legislation.

Describe progress toward meeting the State's 2020 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	401.9	399.8
Number of Serious Injuries	1074.2	1050.2
Fatality Rate	1.429	1.491
Serious Injury Rate	3.820	3.874
Non-Motorized Fatalities and Serious Injuries	204.0	195.4

NMDOT's safety targets were established based on a series of meetings with the Multimodal Planning and Programs Bureau and other stakeholders. The state set annual targets for five performance measures listed below:

1. Number of Total Fatalities
2. Number of Serious Injuries

3. Fatalities per 100 million vehicle miles travelled (VMT) or fatality rate
4. Serious Injuries per 100 million VMT or serious injury rate
5. Number of Non-motorized Fatalities and Serious Injuries

Progress, in terms of meeting the forecasted targets, is described below. The measure used to describe progress is the Five-Year Moving Average.

1. Number of Total Fatalities. The 2020 forecast target for fatalities was 401.9 and the actual Five-Year Moving Average for 2020 (based on preliminary NMDOT data) is 399.8. The actual 2020 value compared to the forecast target in 2019 was a decrease of 0.5 percent. This is a very small decrease, showing that the forecasted value was consistent with what has occurred statewide. NMDOT uses a linear best fit model of crash data as the primary tool to plot data for future years and this does not consider travel changes.
2. Number of Serious Injuries. The 2020 forecast target for total serious injuries was 1,074.2 and the actual Five-Year Moving Average for 2020 (based on preliminary NMDOT data) is 1,050.2. The actual value for 2020 compared to the forecast target in 2019 is a decrease of 2.2 percent. New Mexico continued to experience a small, but steady decrease in total serious injuries in 2020. The year-over-year decreasing trend in serious injuries spans back to 2013.
3. Fatalities per 100 million vehicle miles travelled (VMT) or fatality rate. The 2020 forecast target for the rate of fatalities was 1.429 and the actual Five-Year Moving Average for 2020 (based on preliminary NMDOT data) is 1.491. The actual value for 2020 compared to the forecast target in 2019 was an increase of 4.3 percent. This increase, to some extent, can be attributed to higher speeds and lower volumes in 2020 due to the pandemic. With less vehicles on roads due to the pandemic and quarantining, higher speeds were more consistently achievable. The higher speeds correlate with higher severity crashes and follows a nationwide trend.
4. Serious Injuries per 100 million VMT or serious injury rate. The 2020 forecast target for the rate of serious injuries was 3.820 and the actual Five-Year Moving Average for 2020 (based on preliminary NMDOT data) was 3.874. The actual value for 2020 compared to the forecast target in 2019 was an increase of 1.4 percent. This increase in serious injury rate again should not be overshadowed by the very positive trend that continues for total serious injuries in New Mexico. But like the explanation for the fatality rate, the small increase could be attributed to the impacts of the pandemic.
5. Number of Non-motorized Fatalities and Serious Injuries. The 2020 forecast target for number of non-motorized fatalities and serious injuries was 204.0 and the actual Five-Year Moving Average for 2020 (based on preliminary NMDOT data) is 195.4. The actual value for 2020 compared to the forecast target in 2019 is a decrease of 4.2 percent. Potential contributors to this decrease include NMDOT becoming a Pedestrian Focus State, designating both pedestrian and bicycle crashes as SHSP Emphasis Areas, and recently conducting network screening of pedestrian crashes to identify high risk locations. Additionally, the value in 2020 was slightly lower that previous years, possibly due to residents quarantining and doing less walking/bicycling.

Applicability of Special Rules

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

Yes

Consistent with federal criteria for development of projects that address the HRRR special rule, the NMDOT programmed a project (CN-1101370) which included money from the HRRR Special Rule (23 U.S.C. 148(g))(1)) funding category. This project is classified as a rural, major collector, with an ownership listed as ‘State Highway Agency’. This project will address a number of safety concerns related to the existing conditions providing no shoulder to drivers on six bridges. The bridges will have shoulder treatments applied,

increasing to a 4-foot shoulder, in order to create a more forgiving roadside. The southern portion of the project corridor was identified as a safety tier 3 segment in the 2019 NMDOT maintained roads Network Screening.

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	2014	2015	2016	2017	2018	2019	2020
Number of Older Driver and Pedestrian Fatalities	29	30	47	46	50	41	42
Number of Older Driver and Pedestrian Serious Injuries	108	80	83	101	90	107	54

At the time of populating this report (mid-August), the 2020 crash data was not listed on FARS. The NMDOT dataset prepared by UNM was used for calculating the 2020 fatality and A-injuries numbers for older pedestrians and older drivers.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Change in fatalities and serious injuries

None

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

To date, NMDOT has evaluated programs on a limited basis and has instead focused on developing a more robust safety management process based on guidance from HSM Part B. A key step in the HSM Part B Roadway Safety Management Process is evaluating the effectiveness of countermeasures and projects. Recent progress in improving crash data quality will support this effort in the future.

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

- HSIP Obligations
- Increased awareness of safety and data-driven process
- Policy change
- Other-Development of improved HSIP internal and external procedures

The options from the checkboxes are expanded upon below.
1. Use of HSIP fund obligations for only HSIP projects.
2. Increased awareness of safety and data-driven process to identify candidate projects.
3. Policy change - development of policy guidance documents, such as the HSIP Manual, which is soon to be completed.
4. Other-development of improved HSIP internal and external procedures, such as improved databases.

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

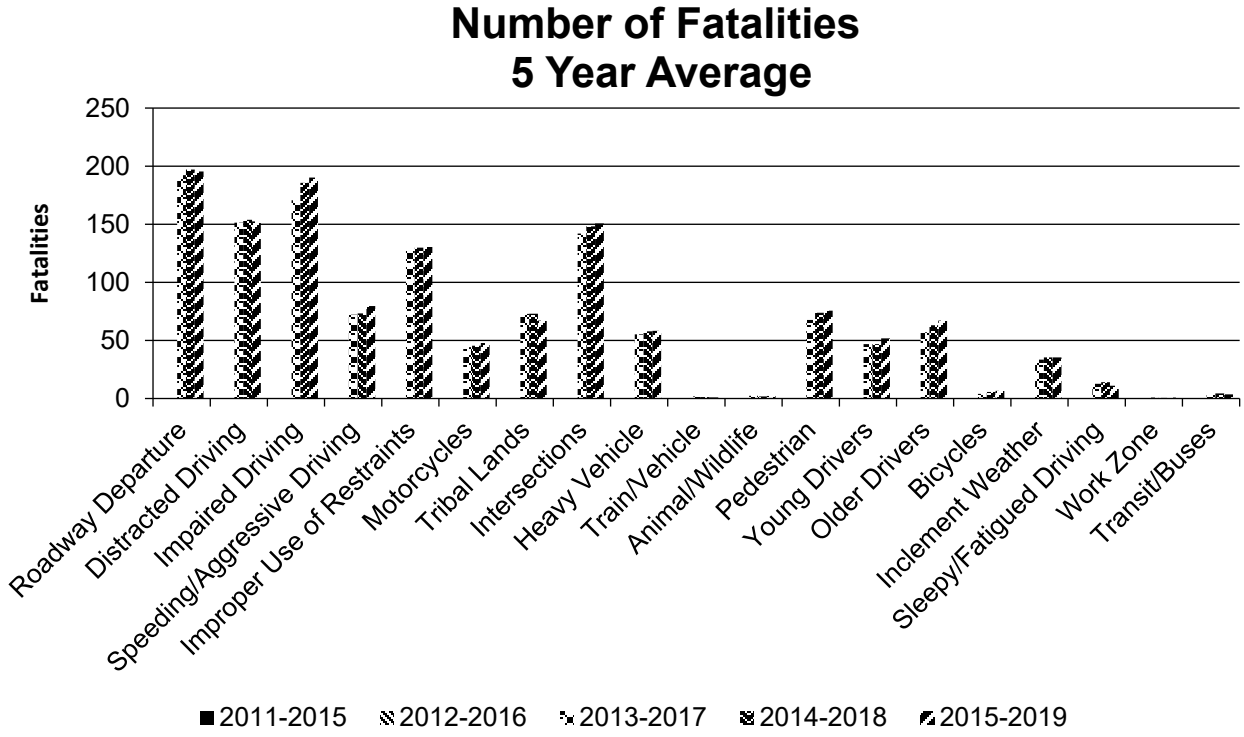
The NMDOT is in the process of updating the data for the Strategic Highway Safety Plan. A major change in this effort is shifting from analyzing fatal crashes and A-injury crashes to focusing on fatalities and A-injuries. Although it has not occurred yet, a significant program shift that is on the horizon is providing more safety materials and tools for local agencies.

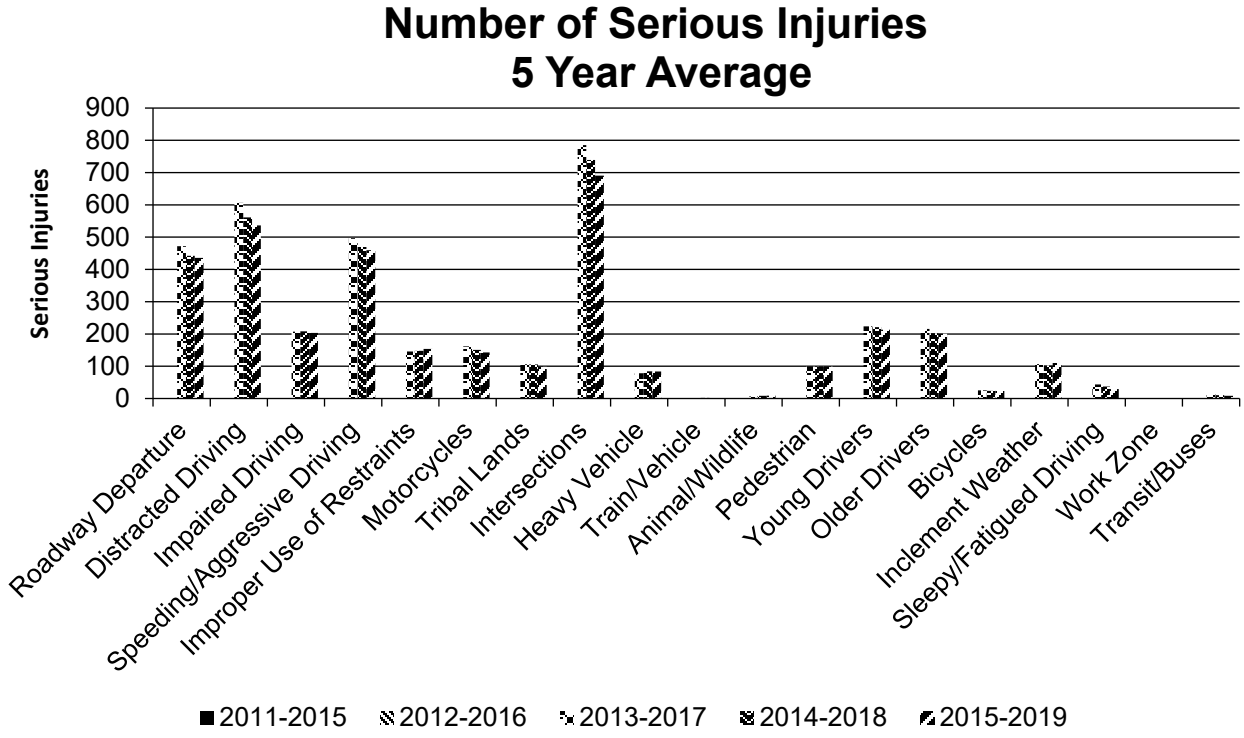
Effectiveness of Groupings or Similar Types of Improvements

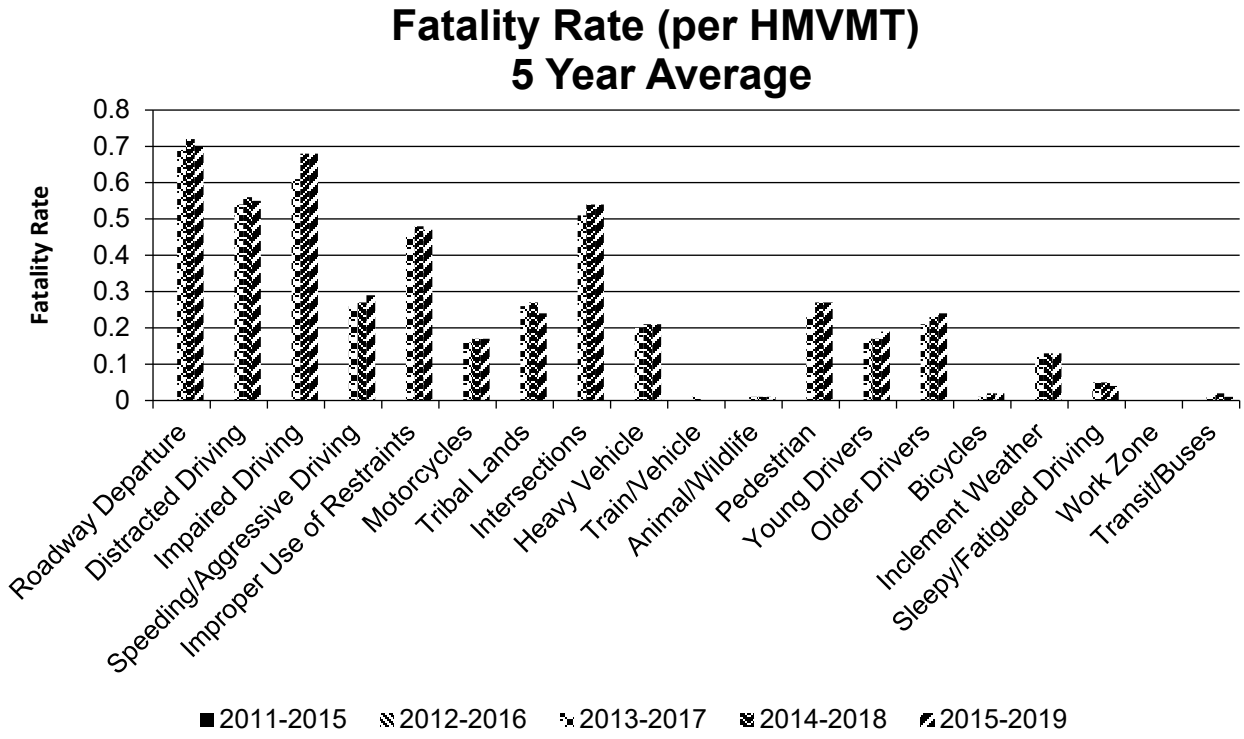
Present and describe trends in SHSP emphasis area performance measures.

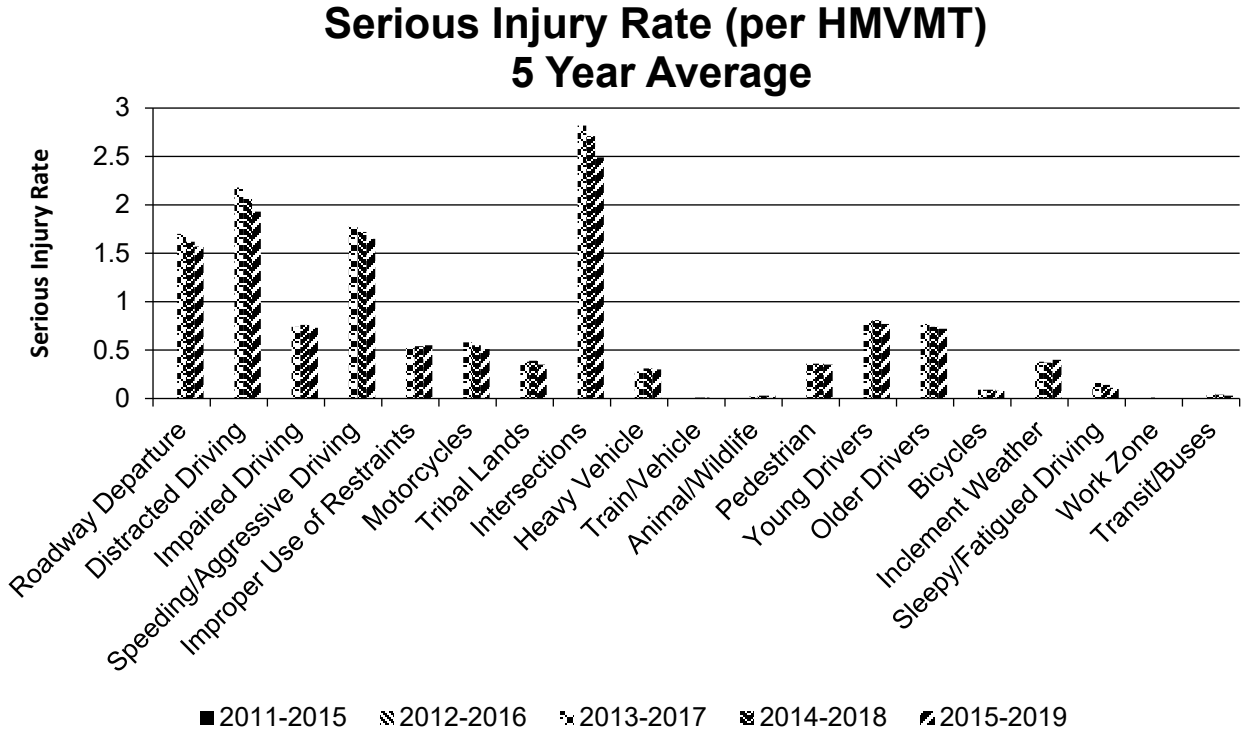
Year 2019

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Roadway Departure	Run-off-road	195.4	435.8	0.7	1.57
Distracted Driving	All	152.4	536.4	0.55	1.93
Impaired Driving	All	190.2	203.4	0.68	0.73
Speeding/Aggressive Driving	Speed-related	79.6	459.6	0.29	1.65
Improper Use of Restraints	All	130.4	153.8	0.47	0.55
Motorcycles	All	47.8	143	0.17	0.51
Tribal Lands	All	67	98.2	0.24	0.35
Intersections	Intersections	150.6	690.4	0.54	2.49
Heavy Vehicle	Truck-related	58.2	83.6	0.21	0.3
Train/Vehicle	Trains	1	0.6	0	0
Animal/Wildlife	Vehicle/animal	2.2	9	0.01	0.03
Pedestrian	Vehicle/pedestrian	75.6	98.4	0.27	0.35
Young Drivers	All	51.8	213.4	0.19	0.77
Older Drivers	All	67	201	0.24	0.72
Bicycles	Vehicle/bicycle	6.6	23.2	0.02	0.08
Inclement Weather	All	35.4	109.8	0.13	0.4
Sleepy/Fatigued Driving	All	11	29.4	0.04	0.11
Work Zone	All	0.8	1.2	0	0
Transit/Buses	All	3.6	8.2	0.01	0.03


Number of Fatalities
5 Year Average
Fatalities
250
200
150
100
50
0
Roadway Departure
Distracted Driving
Impaired Driving
Speeding/Aggressive Driving
Improper Use of Restraints
Motorcycles
Tribal Lands
Intersections
Heavy Vehicle
Train/Vehicle
Animal/Wildlife
Pedestrian
Young Drivers
Older Drivers
Bicycles
Inclement Weather
Sleepy/Fatigued Driving
Work Zone
Transit/Buses
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Number of Serious Injuries
5 Year Average
Serious Injuries
900
800
700
600
500
400
300
200
100
0
Roadway Departure
Distracted Driving
Impaired Driving
Speeding/Aggressive Driving
Improper Use of Restraints
Motorcycles
Tribal Lands
Intersections
Heavy Vehicle
Train/Vehicle
Animal/Wildlife
Pedestrian
Young Drivers
Older Drivers
Bicycles
Inclement Weather
Sleepy/Fatigued Driving
Work Zone
Transit/Buses
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Fatality Rate (per HMVMT)
5 Year Average
Fatality Rate
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Roadway Departure
Distracted Driving
Impaired Driving
Speeding/Aggressive Driving
Improper Use of Restraints
Motorcycles
Tribal Lands
Intersections
Heavy Vehicle
Train/Vehicle
Animal/Wildlife
Pedestrian
Young Drivers
Older Drivers
Bicycles
Inclement Weather
Sleepy/Fatigued Driving
Work Zone
Transit/Buses
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Serious Injury Rate (per HMVMT)
5 Year Average
Serious Injury Rate
3
2.5
2
1.5
1
0.5
0
Roadway Departure
Distracted Driving
Impaired Driving
Speeding/Aggressive Driving
Improper Use of Restraints
Motorcycles
Tribal Lands
Intersections
Heavy Vehicle
Train/Vehicle
Animal/Wildlife
Pedestrian
Young Drivers
Older Drivers
Bicycles
Inclement Weather
Sleepy/Fatigued Driving
Work Zone
Transit/Buses
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019

None

Project Effectiveness

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

None evaluated.

Compliance Assessment

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

03/01/2017

What are the years being covered by the current SHSP?

From: 2017 To: 2021

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

2021

An update of the data included in the 2017 New Mexico SHSP is underway via a Task Order with a consultant. Expected completion is planned for Fall 2021.

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]	1	1					1	1	1	1
	Route Number (8) [8]	1	0.99								
	Route/Street Name (9) [9]	0.99	0.1								
	Federal Aid/Route Type (21) [21]	1	1								
	Rural/Urban Designation (20) [20]	1	1					1	1		
	Surface Type (23) [24]	0.95	0.95					0.95	0.8		
	Begin Point Segment Descriptor (10) [10]	1	1					1	1	1	1
	End Point Segment Descriptor (11) [11]	1	1					1	1	1	1
	Segment Length (13) [13]	1	1								
	Direction of Inventory (18) [18]	1	1								

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
	Functional Class (19) [19]	1	1					1	1	1	1
	Median Type (54) [55]	0.8	0.5								
	Access Control (22) [23]	1	1								
	One/Two Way Operations (91) [93]	1	1								
	Number of Through Lanes (31) [32]	1	1					0.99	0.85		
	Average Annual Daily Traffic (79) [81]	1	1					1	1		
	AADT Year (80) [82]	1	1								
	Type of Governmental Ownership (4) [4]	1	1					1	0.2	1	0.2
INTERSECTION	Unique Junction Identifier (120) [110]										
	Location Identifier for Road 1 Crossing Point (122) [112]										
	Location Identifier for Road 2 Crossing Point (123) [113]										
	Intersection/Junction Geometry (126) [116]										
	Intersection/Junction Traffic Control (131) [131]										
	AADT for Each Intersecting Road (79) [81]			0.8	0.8						
	AADT Year (80) [82]			1	1						
	Unique Approach Identifier (139) [129]										
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					1	1				

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 Beginning of Ramp Terminal (197) [187]					1	1				
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					1	1				
	Ramp Length (187) [177]					1	1				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					1	1				
	Roadway Type at End Ramp Terminal (199) [189]					1	1				
	Interchange Type (182) [172]					1	1				
	Ramp AADT (191) [181]					1	1				
	Year of Ramp AADT (192) [182]					1	1				
	Functional Class (19) [19]					1	1				
	Type of Governmental Ownership (4) [4]					1	1				
Totals (Average Percent Complete):		**0.99**	**0.92**	**0.23**	**0.23**	**1.00**	**1.00**	**0.99**	**0.87**	**1.00**	**0.84**

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

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

Overview:
The NMDOT has an Advanced Linear Referencing System using Esri's Roads and Highways database platform. When developing this system the NMDOT incorporated many of the MIRE FDE's as feature classes in the schema. This new database is known as the Roadway Inventory System (RIS). Although the current schema was based on MIRE 1.0, NMDOT's database is agile enough to update features as necessary.

The NMDOT has a very robust data collection process on all of the State-owned routes as well as Non-State-owned roads that are on the Federal Aid System. This accounts for 12,321 miles of New Mexico's total road mileage of 71,827 miles. As such the NMDOT stands very well on MIRE roadway segment data on the non-local roads.

Current Projects:
1. In 2019 the NMDOT joined FHWA's pooled fund study "Applications of Enterprise Geographic Information Systems for Transportation (AEGIST)." This is a five-year study with multiple components. One of the deliverables from this pooled fund study is the creation of an "Intersection Module." This module will be able to take all of the intersection data and create a table of at least eight intersection features as required for safety analysis. The implementation of the

module in New Mexico is currently scheduled to start in early 2022.
2. NMDOT’s Roadway Inventory Program is currently updating the Ownership of many NMDOT’s roads focusing on County owned and Federally owned roads. 2020 marks the first time that FHWA has provided a geodatabase of Federally owned roads to the states. This effort is on-going.
3. A Data Dictionary that includes the MIRE FDE definitions is currently under development and will be added to NMDOT’s public facing website. Initial deployment is expected in 2022.
4. The NMDOT initiated a project in 2020 to update route number based on various data sources for FARS compliance. This project aids in compliance with MIRE Route Number (MIRE FDE 8).
5. The NMDOT initiated a domain change for the Surface Type feature class to combine both HPMS and MIRE data elements. This change is currently being evaluated.
6. NMDOT continues to evaluate the Median Type (MIRE FDE 55) and Median Barrier Presence type (MIRE 57) for MIRE and HPMS reporting congruencies. This effort is ongoing.

Optional Attachments

Program Structure:

Q13_2021_FHWA_HSIP_Annual_Report.docx
NMDOT_2021AnnualReport_Q19_Response.docx
Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

Glossary

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

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

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

HMVMT: means hundred million vehicle miles traveled.

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

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

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

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

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

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

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

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

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