# NEW MEXICO

# HIGHWAY SAFETY IMPROVEMENT PROGRAM

## 2022 ANNUAL REPORT

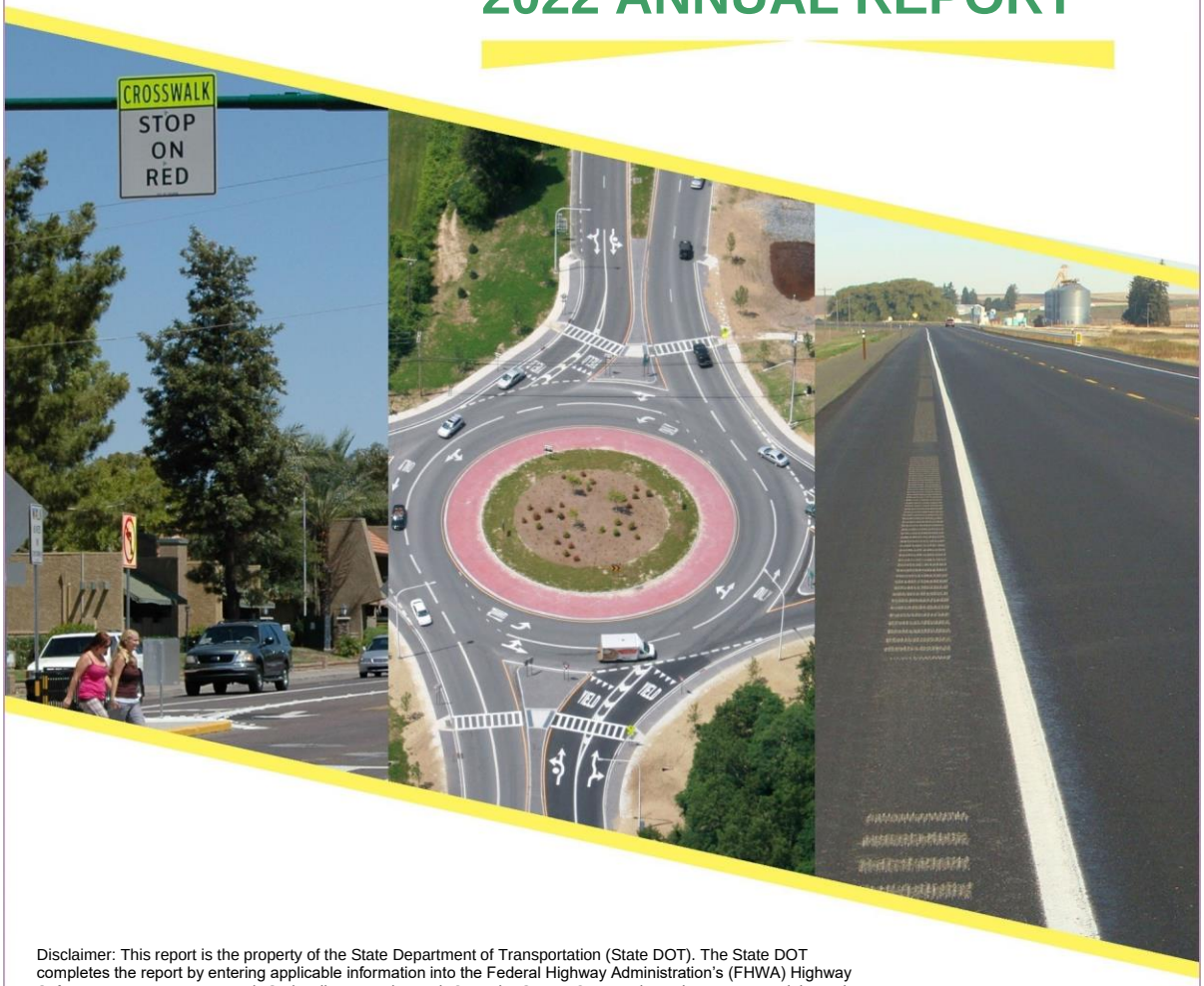


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Table of Contents

# Disclaimer

## *Protection of Data from Discovery Admission into Evidence*

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

23 U.S.C. 407 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

# Executive Summary

The Highway Safety Improvement Program (HSIP) annual report is prepared by the Multimodal Planning and Programs Bureau (MPPB) of the New Mexico Department of Transportation (NMDOT) Planning Division (PD). The 2022 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) 2021 Statewide Transportation Improvement Program (STIP). 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 management. This coordinated safety planning 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 2017 to the year 2021, there was a 26 percent increase in fatalities (380 to 479). It should be noted for this report that all 2021 fatality data represents a preliminary estimate of the data since FARS data was not available. The five-year moving average for fatalities also increased significantly from 2017 to 2021. A comparison of values of the five-year moving average indicates an increase of 16.5 percent in 2021 to 414.8 fatalities, compared to 356.0 fatalities in 2017. While the actual count of fatalities was relatively consistent from 2017 to 2020, with a large increase in 2021, the annual rate of fatalities in New Mexico had a slightly increasing trend in the same time period, from 1.332 to 1.554 (preliminary estimate) fatalities per 100 million vehicle miles traveled (VMT) - an increase of 16.6 percent.

Suspected serious injuries (A) declined by 12.1 percent from 1,133 to 996 during the same reporting period of 2017 to 2021. The number of reported serious injuries has a steady overall declining trend dating back to 2010. Suspected serious injuries (A) have been on a downward trend in New Mexico for 2017 to 2020, with a slight increase observed in 2021. The overall reduction in the five-year moving average from 2017 to 2021 is 1,235.6 to 1,030.4; a decrease of 16.6 percent. The annual rate of serious injuries in New Mexico declined from 2017 to 2021 from 4.625 to 3.860 (preliminary estimate) serious injuries per 100M VMT, or a reduction of 16.5 percent.

Annual non-motorized fatalities and suspected serious injuries increased between 2017 to 2021 (preliminary estimate) from 197 to 216, an increase of 9.6 percent and an increase in the five-year rolling average of 3.1 percent (195.6 to 201.6).

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 from previously completed Road Safety Audit (RSA) projects. In addition, in summer 2021 the MPPB worked with consultants to complete a Highway Safety Manual (HSM)-based network screening analysis of NMDOT's mainline interstate roadway network - excluding entrance/exit ramps. The screening effort included an independent review of segments in each direction on interstate routes in order to identify and rank segments with a statistically high need, based on the potential to reduce fatal and serious injury crashes.

On February 25, 2022 the 2021 SHSP update process was approved by FHWA-NM. Due to covid restrictions a complete new SHSP development stakeholder process was not possible. Instead, MPPB worked with consultants to update the 2016 plan with new data from FFY 2013 – FFY 2019. The data was used to validate the 10 high-priority Emphasis Areas and the 10 priority Emphasis Areas in the plan. One major distinction in the 2021 SHSP compared to the prior version is the transition from evaluating the number of crashes to

evaluating the number of fatalities and injuries. The updated 2021 SHSP guides the HSIP program with emphasis areas and strategies to improve transportation safety in New Mexico.

Each year, MPPB works with our NMDOT Traffic Safety Division partners and other stakeholders to set the five required HSIP safety performance targets. The Traffic Safety Division submits the Highway Safety Plan to NHTSA and the HSIP and HSP share the three common measures related to safety performance. The three common measures are, number of fatalities, number of serious (A) injuries, and the fatality rate (per 100 million VMT). Once the common measure targets are identified MPPB works with the Traffic Safety Division and stakeholders to vet the targets and get feedback. The Metropolitan Planning Organizations are key stakeholders and are also required to adopt quantifiable safety targets. The practice to-date in New Mexico has been for the MPOs to adopt the NMDOT targets.

The Interstate Network Screening report and the update to the SHSP were highlights of the 2021 reporting period. NMDOT is proud of the projects and administration of the HSIP and has made progress in using a data driven approach to implement the Roadway Safety Management process as outlined in the HSM. But, with a 26% increase in fatalities in 2021 it is clear more can be done and NMDOT will continue to work the MPOs, Tribal and Local Public Agencies (T/LPAs) and all transportation safety stakeholders to improve safety on all New Mexico roadways.

# 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 Highway Safety Improvement Program is run by the Multimodal Planning and Programs Bureau (MPPB) of the NMDOT Planning Division. The HSIP funds are programmed by the NMDOT Safety Committee, which includes members from engineering, design, STIP, rail, and traffic from within NMDOT and the FHWA-NM Division office safety engineer. The committee oversees project selection and allocation of funds to determine where the funds can be most efficiently utilized to optimize safety performance. 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.

HSIP projects are identified through Road Safety Audits, Network Screening Reports and diagnostics, and from transportation safety plans. HSIP funding is awarded by the NMDOT Safety Committee - members on this committee are listed for question #8. Most of the projects are NMDOT lead projects constructing safety infrastructure improvements on NMDOT owned roadways. Tribal and Local Public Agencies (TLPA) are also awarded projects by the Safety Committee and have the same data-driven requirements as NMDOT lead projects. Once TLPA projects are awarded, the projects must be added to the corresponding MPO’s TIP and the NMDOT’s STIP. NMDOT leads project design then runs through one of the three regional design centers: North Region, Central Region, and South Region design centers. TLPA projects are advertised and awarded for design through consulting design engineers.

Implementation is similar for NMDOT lead and TLPA lead projects. Design reviews occur at 30%, 60% and 90% and all required certifications are required for a project to advance to PS&E. Once PS&E is complete a project is advertised for construction and then constructed in the federal fiscal year of the construction funding. Evaluation of implemented safety infrastructure projects is not systematically taking place. NMDOT continues to build HSIP capacity both the number of positions but also training and professional development for staff and implementing the HSM Roadway Safety Management Process. However, developing the capacity for detailed project evaluation is an ongoing multiyear process.

### Where is HSIP staff located within the State DOT?

Other-Multimodal Planning and Programs Bureau & the Traffic Safety Division

### How are HSIP funds allocated in a State?

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

The allocation process continues to move 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.

Tribal and local public agency (T/LPA) led road safety projects are a component in the HSIP. A total of $7,775,141.00 was programmed and $6,377,178.84 obligated on eight T/LPA projects for the FFY 2021 reporting period. These projects varied in scope from pedestrian facilities, general intersection improvements, lighting, and the addition of left-turn lanes.

Under the NM HSIP program all public roadways are eligible for participation. For this HSIP reporting period (FFY 2021), there were eight NM HSIP projects that had funds obligated or programmed on local roads or had Tribal involvement.

One of the projects with Tribal involvement carried a programmed HSIP cost of $13,770. The location of the project is in San Juan County on US-64 at the intersection with Indian Service Route 5031 - it stretches from milepost 26.6 to 27.74 (1.15 miles). The major improvement for the project is to provide acceleration and deceleration lanes on US-64 in the eastbound and westbound directions. This project is identifiable by control number (CN) 5101120.

The second project with Tribal involvement carried a programmed HSIP cost of $59,343. 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 and was also included in the 2021 Annual Report for FY2020.

NMDOT also programmed $810,000 to a third project with Tribal involvement during the FY2021 reporting period. The project CN, as listed in the Statewide Transportation Improvement Program (STIP), is 9900809. The project’s improvement description is listed as installing dynamic message signs on portions of US-70 and US-380. Sections of the project along US-70 through the community of Mescalero located within the Mescalero Apache Reservation.

CN A300191 programmed $1,539,000 and obligated $1,780,150.84 to add northbound and southbound left-turn lanes and implement other intersection improvements, including the relocation of a railroad crossing, lighting, and pedestrian improvements. One leg of this intersection has a jurisdiction of city/municipal highway agency.

Project with CN 5101390 has a focus on constructing pedestrian/bicyclist facilities. Specific improvements include ADA sidewalks, landscape buffers, pedestrian crossings, and mid-block pedestrian signals. For FY2021 there was $1,332,000 programmed and $576,000 obligated.

The City of Belen acted as the lead agency for CN A301700 with $650,001 programmed and obligated in FFY2021. 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. This project was also included in the 2021 Annual Report for FY2020.

There is also a City of Santa Fe lead project to design and construct a multi-use path underpass underneath St. Michael’s Drive. This project had $705,994.00 programmed in FY2021 and can be identified using CN 5100470.

The final project to list was led by the Town of Bernalillo with CN A302111. This project had programmed and obligated costs of $2,665,033. The roadway jurisdiction for this project is city/municipal highway agency. For the improvements, the focus is a multi-use path and an at-grade pedestrian crossing with the Downtown Bernalillo Railrunner Station and U-550 Railrunner Station. There will also be 219 lighted bollards and decorative fencing on both sides of the new trail.

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 quarterly (January, April, July, and October) 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 reviews and approves applications/Award Change requests for HSIP funding and provides a forum for multidisciplinary collaboration for the NMDOT divisions and bureaus involved in safety planning. The Safety Committee is composed of the following voting and advisory members:

Voting members:

· Program Management Division Director

· Planning Division Director

· Modals Division Director

· Roadside Environment Design Manager

· Bicycle, Pedestrian, and Equestrian Coordinator

Advisory members:

· HSIP Planner/Technical Unit Supervisor

· FHWA-NM Safety Engineer

· STIP Unit Manager

· Technical Groups

· Rail Bureau Chief

· The HSIP Planner also interacts closely with the three NMDOT Regional Design Centers to coordinate project tracking and oversight needs. In addition, the HSIP Planner 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 NMDOT 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 countermeasure recommendations.

NMDOT finds local community expertise invaluable when considering safety issues and needs. Local knowledge and community involvement aid in 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 administrative HSIP tasks, review of potential HSIP projects, and Roadway Safety Management Process planning.

## Describe HSIP program administration practices that have changed since the last reporting period.

A notable change in this reporting period to the administration of the HSIP by the MPPB is the dedication of more staff positions to the program. In calendar years 2019, 2020 and 2021 there was only one staff position and it was vacant for some of the time. Dedicated staff was hired in 2021 and a new position was added summer of 2022. This brings the total staffing to 2 FTEs for the administration of the HSIP by the MPPB, with additional support from MPPB management team. The new team has an HSIP Planner and HSIP Engineering Technician supported by Technical Unit Supervisor. At the time of submitting this report both new positions remain vacant due to difficulty getting applicants for the positions. Hiring efforts will be ongoing until the positions are filled.

Once filled, these new staff resources will expand capacity for outreach and engagement with MPOs and RTPOs and allow for more projects and initiatives to develop resources to communicate and analyze safety data to and for our internal and external partners and stakeholders.

Another change to the general structure of the MPPB administration of the HSIP is adding new voting members to the Safety Committee. See question 8 for a complete list of committee members, but the Safety Committee went from three to five voting members with additional members from the Roadside Environment Design Section and the inclusion of the Bicycle, Pedestrian and Equestrian Coordinator.

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

In 2021 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 forming 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 still needs to be added 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 through the Online Reporting Tool. When the new staff positions described in question 3 are filled, the specific HSIP process and procedures can be identified for the completion of the HSIP manual.

### Select the programs that are administered under the HSIP.

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

None

### What percentage of HSIP funds address systemic improvements?

1

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

- Other-None

For FY2021, there were no funds programmed or obligated to address systemic needs. The input of "1%" was inserted into the Online Reporting Tool because an input of "0%" is not accepted.

## 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?

Yes

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

At this time, the HSIP program does consider safety initiatives related to both connected vehicle technologies and ITS technologies. If a project were to be submitted to the Safety Committee with any ITS-related features or connected vehicle features, the project would be considered on the same level as any other safety project.

However, in this reporting period, there were two projects that included ITS-related technologies, but no connected vehicle technologies were identified for the projects. The CNs for those two ITS projects are 5101120 and 9900809.

## 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. The NMDOT finished the network screening process for nearly all non-local routes throughout the state. 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 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 2021, a total of eight Safety Performance Functions (SPFs) were developed for interstate mainlines. These SPFs were constructed based on three features: 4-lanes or 6-lanes, high speed or low speed, and KAB or KABCO crashes.

Currently, diagnostic studies are underway for the interstate system to help identify the probable cause and possible countermeasures to improve the safety of the screened interstate locations. A map of geo-tagged data visualizations will be 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.

# 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)** | $21,811,773 | $13,880,215 | 63.64% |
| **HRRR Special Rule (23 U.S.C. 148(g)(1))** | $1,952,486 | $2,120,900 | 108.63% |
| **Penalty Funds (23 U.S.C. 154)** | $79,939 | $0 | 0% |
| **Penalty Funds (23 U.S.C. 164)** | $171,535 | $0 | 0% |
| **RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))** | $0 | $0 | 0% |
| **Other Federal-aid Funds (i.e. STBG, NHPP)** | $0 | $0 | 0% |
| **State and Local Funds** | $0 | $0 | 0% |
| **Totals** | $24,015,733 | $16,001,115 | 66.63% |

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

$7,775,141

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

$6,377,178

A total of $7,775,141.00 is programmed to projects that have local ownership/involvement or have some aspect of Tribal involvement. The eight projects are briefly mentioned below. · $13,770 programmed for CN 5101120 which focuses on right-of-way acquisition and intersection safety improvements with a minor leg as a Navajo Nation route. · $1,332,000 programmed for CN 5101390 which plans to implement a variety of pedestrian and bicyclist improvements along NM-502 in Los Alamos County. · $59,343 programmed for CN 6100782 which is located in the Navajo Nation community of Naschitti and focuses on improving the roadway lighting along US-491. · $810,000 programmed for CN 9900809 which is partially located in the Mescalero Reservation includes the installation of dynamic message signs throughout the corridor. · $1,539,000 programmed for CN A300191 is an intersection improvement project where one of the legs of the intersection is city/municipality jurisdiction. · $650,001 programmed for CN A301700 is listed as having the City of Belen as the Lead Agency and focuses on implementing many differing pedestrian improvements. · $2,665,033 programmed for CN A302111 is listed as having the Town of Bernalillo as the Lead Agency and focuses on constructing pedestrian crossings, a multi-use path with barrier fencing, and additional pedestrian/bicycle

features. · $705,994 programmed for CN S100470 is listed to construct an underpass for a multi-use path in Santa Fe with the Santa Fe staff acting as the lead agency.
A total of $6,377,178.84 is obligated to the six projects mentioned in the first part of this question. $0 for CN 5101120 $576,000 for CN 8101390 $0 for CN 6100782 $0 for CN 9900809 $1,780,150.84 for CN A300191 $650,001.00 for CN A301700 $2,665,033.00 for CN A302111 $705,994.00 for CN S100470

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

$1,756,431

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

$1,279,956
A total of $1,756,431.00 is programmed to non-infrastructure safety projects . The CNs for these five projects are: · 6101400 · 9900561 · 9900562 · 9901140 · U900303

## 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. Some of the challenges included in this reporting cycle are supply chain disruptions caused by the pandemic and other global events. This is causing project programmed in previous years to face letting adjustments and some projects have moved out in STIP years to seek additional funding.

## *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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D1 Dust Mitigation Project | Roadside | Roadside - other | 2 | Miles of miscellaneous dust mitigation techniques along roadside | $0 | $640000 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 3,516 | 65 | State Highway Agency | Spot | Inclement Weather | Work with landowners to explore dust control strategies such as livestock/grazing management, vegetation management, and soil stabilization. |
| I-10 Dust Mitigation | Roadside | Roadside - other | 4 | Miles of miscellaneous dust mitigation techniques along roadside | $892156 | $1000000 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Interstate | 15,118 | 75 | State Highway Agency | Spot | Inclement Weather | Work with landowners to explore dust control strategies such as livestock/grazing management, vegetation management, and soil stabilization. |
| Santa Clara Multimodal Project | Pedestrians and bicyclists | Pedestrians and bicyclists – other | 2.5 | Miles | $243161 | $4119046 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 14,320 | 55 | State Highway Agency | Spot | Pedestrians | Install street lighting and other measures to improve conspicuity and visibility of pedestrians. |
| US 64/N 5031 Intersection | Intersection geometry | Intersection geometry - other | 1.15 | Miles | $0 | $2638353 | HSIP (23 U.S.C. 148) | Urban | Multiple/Varies | 15,398 | 60 | State Highway Agency | Spot | Intersections | Implement geometric improvements related to vehicle operations. |
| NM 502/Trinity Drive | Pedestrians and bicyclists | Pedestrians and bicyclists – other | 0.55 | Miles | $576000 | $4250000 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other | 12,110 | 35 | City or Municipal Highway Agency | Spot | Pedestrians and Bicyclists | Install or upgrade traffic/pedestrian signals, refuge islands, and raised medians based on the identified need. |
| US 550 Game Fence | Roadside | Fencing | 3.300000000000001 | Miles | $0 | $1000000 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 9,219 | 65 | State Highway Agency | Spot | Animal / Wildlife Involvement | Install fence with gap, warning signs, and climb-out escapes and/or underpasses |
| 40 MILES NORTH OF GALLUP | Lighting | Continuous roadway lighting | 28 | Lights | $0 | $481704 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 4,587 | 65 | State Highway Agency | Spot | Pedestrians | Implement street lighting and other measures to improve conspicuity and visibility of pedestrians |
| NM 118 Study | Miscellaneous | Transportation safety planning | 1 | Study | $105495 | $1172174 | HSIP (23 U.S.C. 148) | Multiple/Varies | Multiple/Varies | 18,243 | 55 | State Highway Agency | Spot | All EAs | Consider all improvements throughout the study. |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| New Mexico State Police | Miscellaneous | Training and workforce development | 1 | TraCS Software | $0 | $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 | Miscellaneous | Training and workforce development | 1 | TraCS Software | $0 | $460000 | Penalty Funds (23 U.S.C. 164) | N/A | N/A | 0 | 0 | State Highway Agency | Data-Related | Data | Data Improvement |
| Intersection Lighting at Carlsbad Relief Route | Lighting | Lighting - other | 16 | Lights | $461939 | $543848 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 12,319 | 65 | State Highway Agency | Spot | All EAs | General roadway improvement to increase drivers' visibility. |
| Dynamic Message Signs through Mescalero | Roadway signs and traffic control | Roadway signs and traffic control - other | 3 | Signs | $0 | $910000 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 11,936 | 65 | State Highway Agency | Spot | Real-time Driver Information | Present drivers with current roadway conditions and other operational concerns. |
| Metal Beam Guardrail | Roadside | Barrier- metal | 41000 | Linear Feet | $0 | $8173713 | HSIP (23 U.S.C. 148) | Multiple/Varies | Principal Arterial-Interstate | 40,548 | 75 | State Highway Agency | Spot | Roadway Departure | Install proven treatments to keep vehicles from encroaching on the roadside |
| Intoxilizer Equipment Purchase | Miscellaneous | Equipment | 1 | Purchase Order of Units | $0 | $88822 | Penalty Funds (23 U.S.C. 154) | N/A | N/A | 0 | 0 | State Highway Agency | Spot | Impaired Driving | Prosecute, impose sanctions on, and treat DWI offenders |
| NM 314 & COURTHOUSE RD INTERSECTION IMPROVEMENTS | Intersection geometry | Intersection geometry - other | 1 | Intersections | $1780151 | $6055000 | HSIP (23 U.S.C. 148) | Urban | Multiple/Varies | 10,324 | 35 | State Highway Agency and City/Municipal Highway Agency | Spot | Intersections | -Provide/improve left-turn channelization<br>-Provide/improve right-turn channelization<br>-Revise geometry of complex |
| I-25 MLK NB OFF RAMP IMPROVEMENTS | Roadway | Roadway - other | 3 | Ramps | $2504924 | $2825380 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Interstate | 198,788 | 75 | State Highway Agency | Spot | Roadway Design | Roadway design and traffic control elements support appropriate and safe speeds |
| Delgado Avenue Roadway & Pedestrian Improvements | Pedestrians and bicyclists | Install sidewalk | 0.33 | Miles | $650001 | $822223 | HSIP (23 U.S.C. 148) | Urban | Major Collector | 1,649 | 25 | City or Municipal Highway Agency | Spot | Pedestrians | Provide Americans with Disabilities Act (ADA)-compliant sidewalks/walkways/trails, crosswalks, and curb ramps at locations with identified needs |
| RAIL CORRIDOR PEDESTRIAN SAFETY IMPROVEMENTS PHASE II | Pedestrians and bicyclists | Pedestrians and bicyclists – other | 1.6 | Miles | $2665033 | $4681148 | HSIP (23 U.S.C. 148) | Urban | N/A | 0 | 0 | City or Municipal Highway Agency | Spot | Pedestrians | Provide Americans with Disabilities Act (ADA)-compliant sidewalks/walkways/trails, crosswalks, and curb |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | ramps at locations with identified needs. |
| NM 173 Safety Improvements | Roadway | Roadway - other | 1.7 | Miles | $2120900 | $4370000 | HSIP (23 U.S.C. 148) | Rural | Major Collector | 1,471 | 55 | State Highway Agency | Spot | Roadway Departure & Pedestrians/Bikes | Install proven treatments to keep vehicles from encroaching on the roadside: Rumble strips and stripes. |
| NM 173 Safety Improvements | Roadway | Roadway - other | 1.7 | Miles | $2120900 | $4370000 | HRRR Special Rule (23 U.S.C. 148(g)(1)) | Rural | Major Collector | 1,471 | 55 | State Highway Agency | Spot | Roadway Departure & Pedestrians/Bikes | Install proven treatments to keep vehicles from encroaching on the roadside: Rumble strips and stripes. |
| St. Michael's Dr. Rail Trail Pedestrian Crossing/Underpass | Pedestrians and bicyclists | Modify existing crosswalk | 1 | Crosswalks | $705994 | $4984999 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other | 25,637 | 40 | City or Municipal Highway Agency | Spot | Pedestrians | Install overpasses/underpasses where appropriate. |
| Planning RSA On-Call | Miscellaneous | Transportation safety planning | 1 | Data Analysis | $225000 | $1000000 | HSIP (23 U.S.C. 148) | N/A | N/A | 0 | 0 | State Highway Agency | Task Order-based. | All EAs | Administration and data analysis for the State's HSIP |

The project list for FY2021 was uploaded into the Online Reporting Tool using the Microsoft Excel template. This project list includes a project with project name “NM 173 Safety Improvements” with CN F100170. This particular project has two types of funding categories utilized: HSIP Funds (23 U.S.C. 148) and HRRR Special Rule (23 U.S.C. 148(g)(1)).

In order to include all funds for FY2021, this project was listed two times in the project list. One row represents the HSIP Funds (23 U.S.C. 148) funding category programmed for $2,120,900.00, while the other row represents the HRRR Special Rule (23 U.S.C. 148(g)(1)) funding category, also programmed for $2,120,900.00.

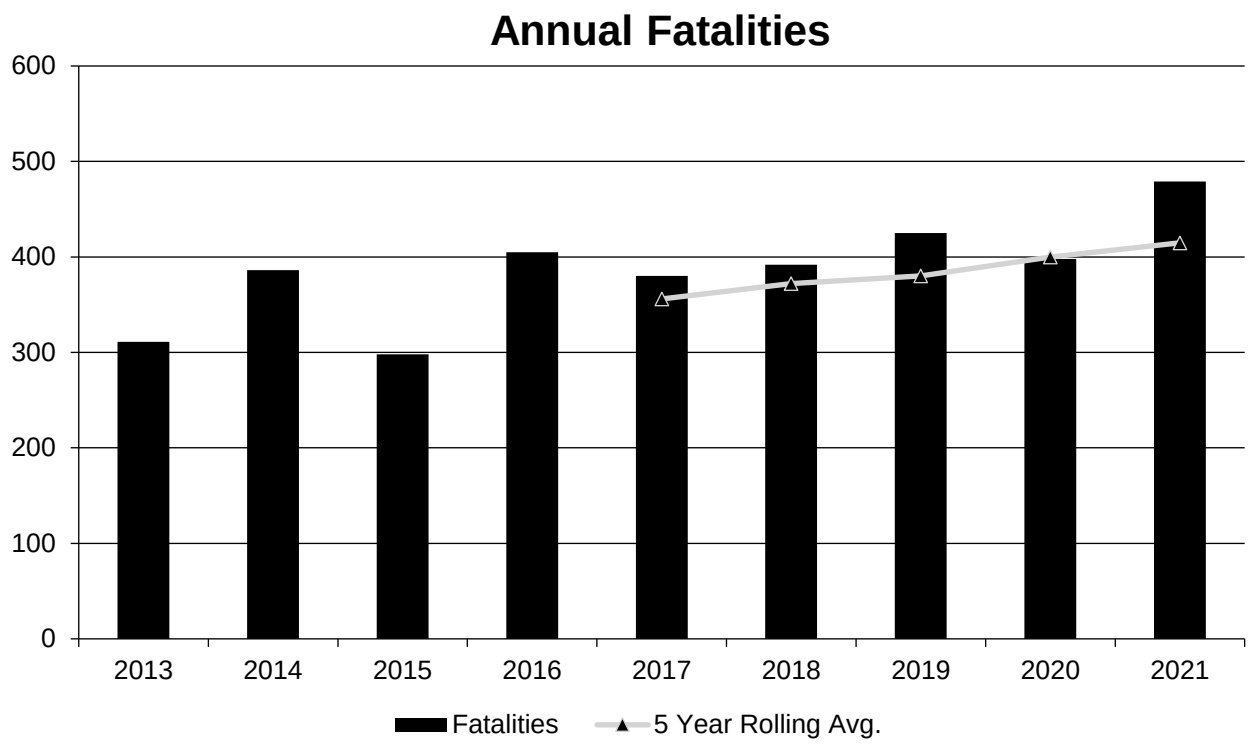
For all FY2021 projects listed, the highest speed limit was included for the response. There were many projects that had speed limits that changed throughout the corridor, instead of being one, consistent speed limit throughout. However, the Online Reporting Tool does not accept “Varies” or “45-55MPH” as an answer. For this reason, the highest speed limit observed along the project corridor was listed.

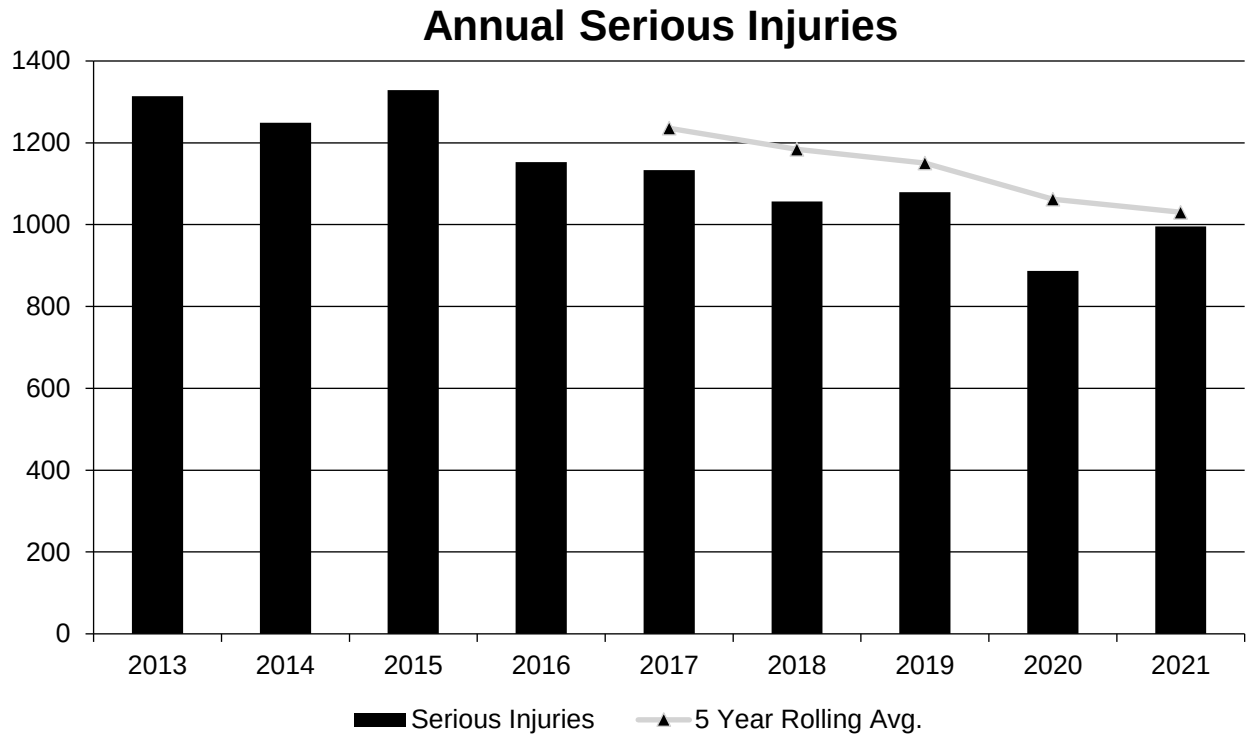
# Safety Performance

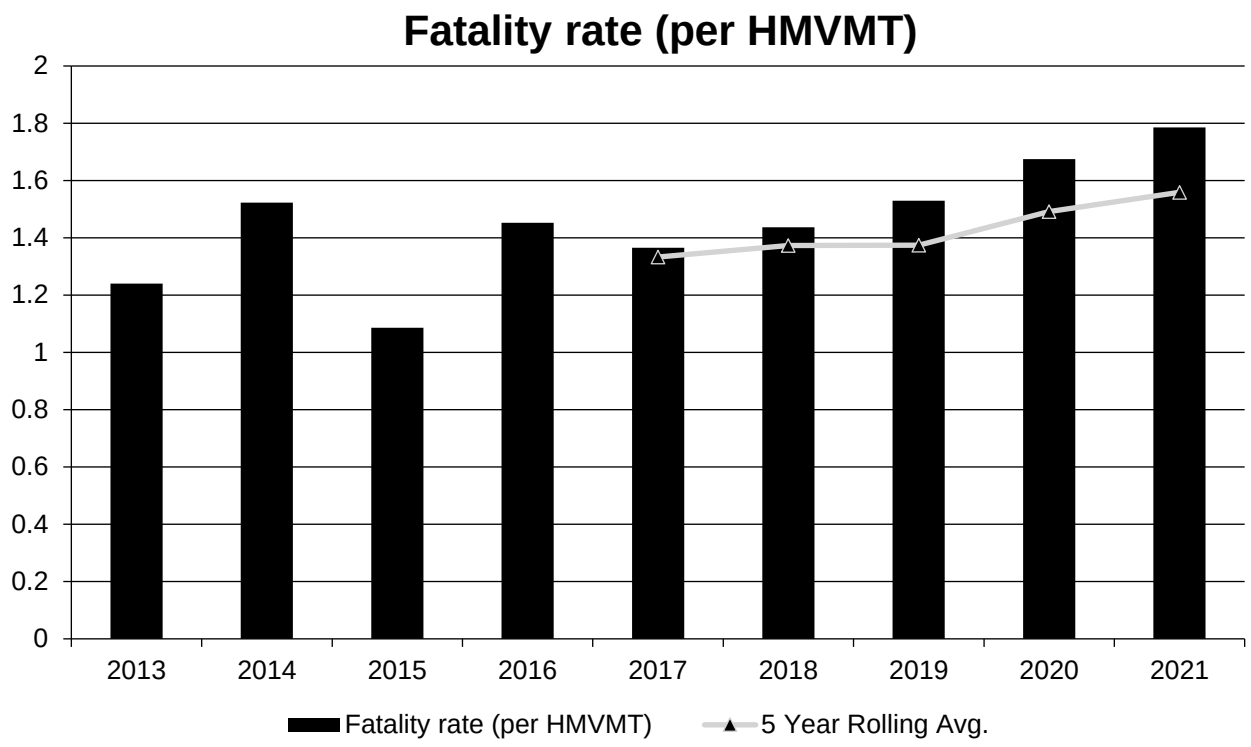
## *General Highway Safety Trends*

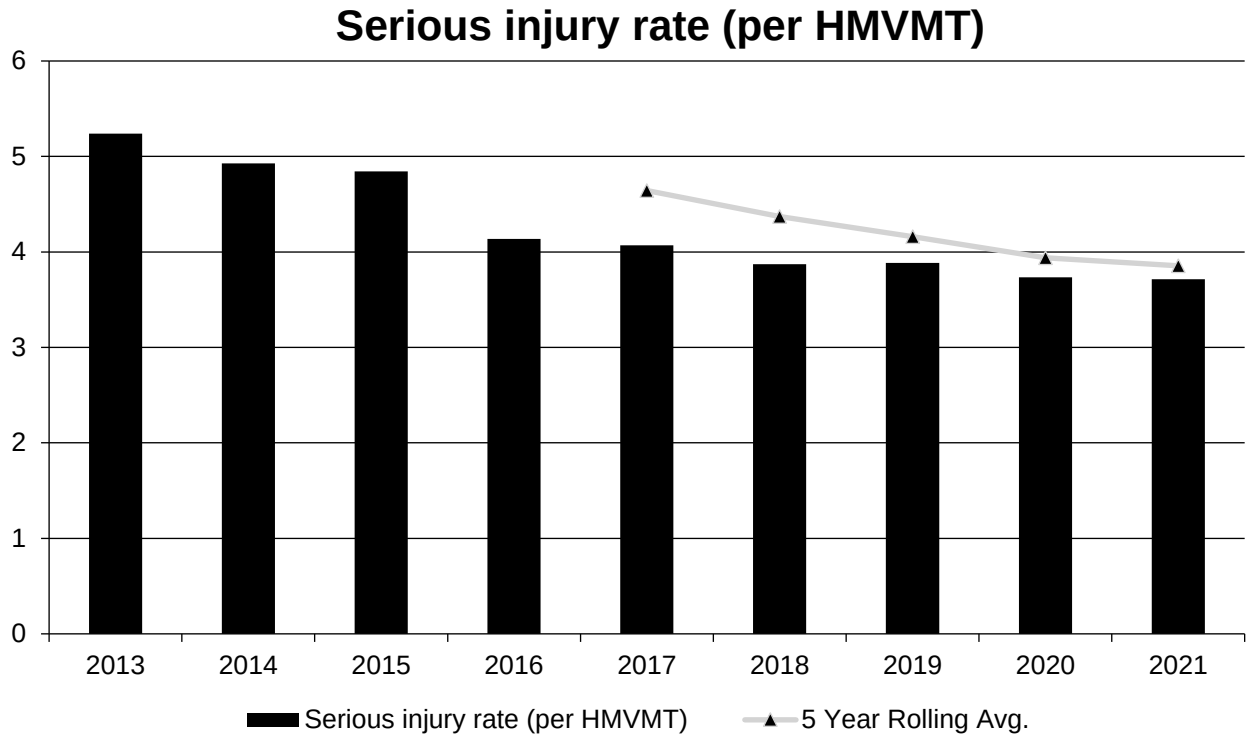
### Present data showing the general highway safety trends in the State for the past five years.

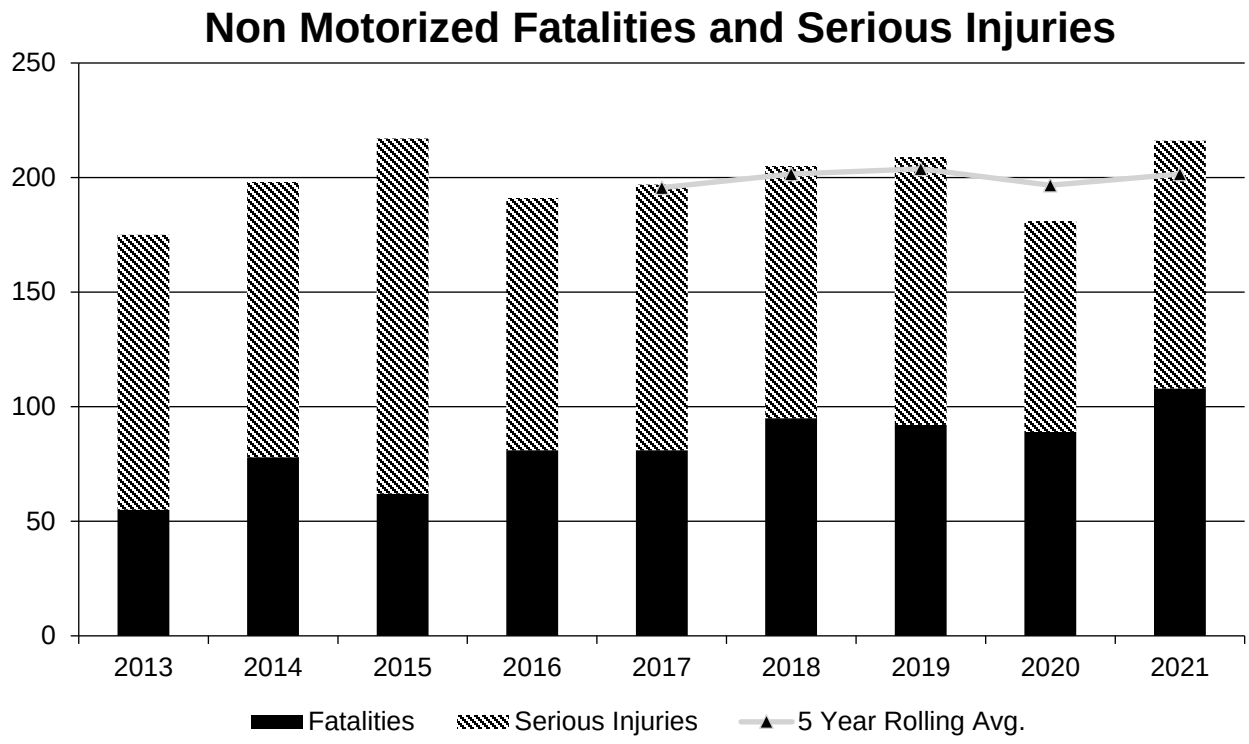
| PERFORMANCE MEASURES | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|
| Fatalities | 311 | 386 | 298 | 405 | 380 | 392 | 425 | 398 | 479 |
| Serious Injuries | 1,314 | 1,249 | 1,329 | 1,153 | 1,133 | 1,057 | 1,079 | 887 | 996 |
| Fatality rate (per HMVMT) | 1.240 | 1.523 | 1.086 | 1.452 | 1.365 | 1.437 | 1.530 | 1.675 | 1.786 |
| Serious injury rate (per HMVMT) | 5.238 | 4.928 | 4.844 | 4.135 | 4.070 | 3.873 | 3.885 | 3.734 | 3.714 |
| Number non-motorized fatalities | 55 | 78 | 62 | 81 | 81 | 95 | 92 | 89 | 108 |
| Number of non-motorized serious injuries | 120 | 120 | 155 | 110 | 116 | 110 | 117 | 92 | 108 |
| non-motorized fatalities and serious injuries | 175 | 198 | 217 | 191 | 197 | 205 | 209 | 181 | 216 |

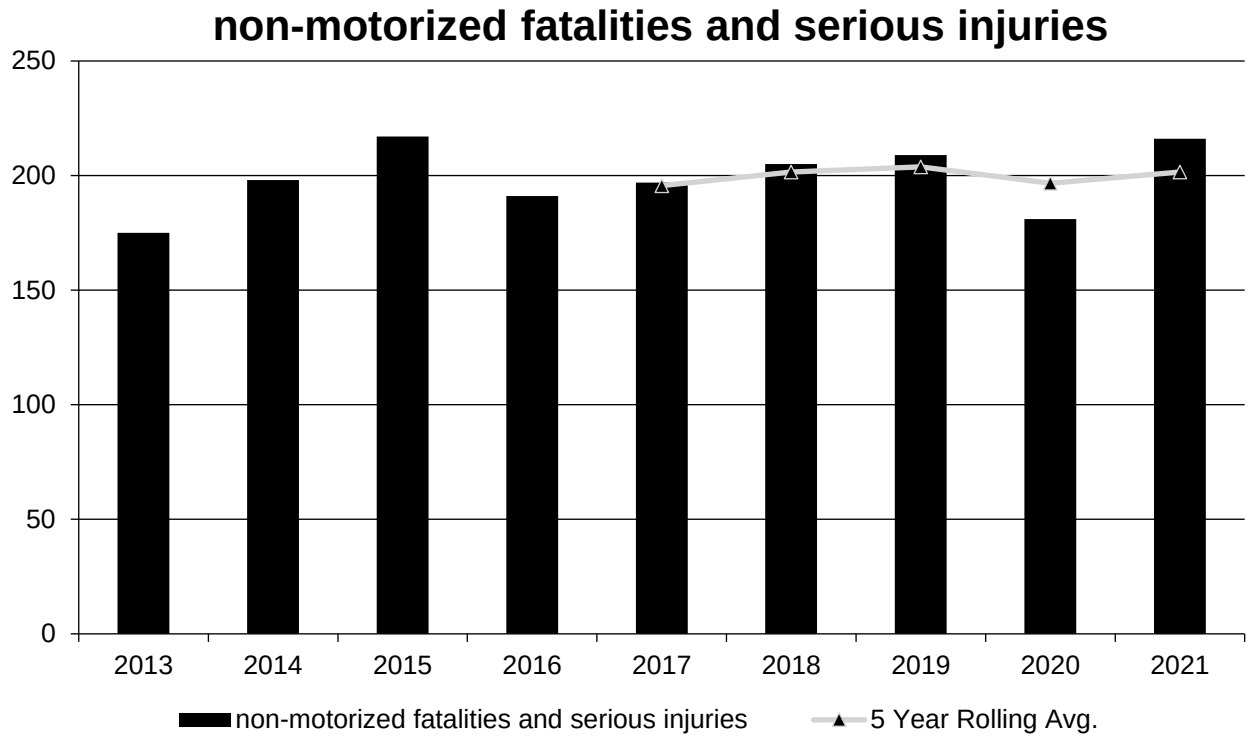

Annual Fatalities
600
500
400
300
200
100
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
1400
1200
1000
800
600
400
200
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Fatality rate (per HMVMT)
5 Year Rolling Avg.


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




· The value for the 2019 fatalities has changed since the summer of 2021. It was previously listed as 424 and has been changed to 425.

· The value for the 2019 fatality rate has changed since the summer of 2021. It was previously listed as 1.527 and has been changed to 1.530.

· The value for the 2020 A-Injuries has changed since the summer of 2021. It was previously listed as 829 and has been changed to 887.

· The value for the 2020 A-Injury rate changed since the summer of 2021. It was previously listed as 3.499 and has been changes to 3.734.

· The value for the 2020 fatality rate has changed since the summer of 2021. It was previously listed as 1.680 and has been changed to 1.675.

· The value for the 2020 HMVMT changed since the summer of 2021. It was previously listed as 236.92 HMVMT and has been changed to 237.56.

· The value for the 2020 non-motorized fatalities and serious injuries has changed since the summer of 2021. It was previously listed as 175 and has been changed to 181.

· The data used for 2021 is provisional.

## Describe fatality data source.

FARS

The source for the 2021 fatality values is the NMDOT crash dataset prepared by UNM. FARS does not have 2021 fatality data published at the time of filling out this report, so the UNM dataset was used as a supplement. All non-2021 fatality data is based on FARS.

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

**Year 2021**

| Functional Classification | Number of Fatalities (5-yr avg) | Number of Serious Injuries (5-yr avg) | Fatality Rate (per HMVMT) (5-yr avg) | Serious Injury Rate (per HMVMT) (5-yr avg) |
|---|---|---|---|---|
| Rural Principal Arterial (RPA) - Interstate | 63 | 88.2 | 1.14 | 1.91 |
| Rural Principal Arterial (RPA) - Other Freeways and Expressways | 0 | 0 | 0 | 0 |
| Rural Principal Arterial (RPA) - Other | 58 | 106.6 | 1.22 | 2.79 |
| Rural Minor Arterial | 34.8 | 60.6 | 1.47 | 3.34 |
| Rural Minor Collector | 9.6 | 12.6 | 1.68 | 2.81 |
| Rural Major Collector | 39.8 | 75.2 | 1.91 | 4.6 |
| Rural Local Road or Street | 22.2 | 47.6 | 0.5 | 1.15 |

| 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 Principal Arterial (UPA) - Interstate | 31.8 | 81 | 0.99 | 2.91 |
| Urban Principal Arterial (UPA) - Other Freeways and Expressways | 0.8 | 3.2 | 0.69 | 2.76 |
| Urban Principal Arterial (UPA) - Other | 95.8 | 311.6 | 2.35 | 8.96 |
| Urban Minor Arterial | 24.4 | 87.6 | 1.39 | 5.78 |
| Urban Minor Collector | 2.2 | 7.8 | 0.94 | 3.57 |
| Urban Major Collector | 11.8 | 50.6 | 1.1 | 5.43 |
| Urban Local Road or Street | 9 | 57.2 | 1.06 | 7.72 |

**Year 2021**

| 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 | 273.2 | 556.8 | 1.62 | 3.3 |
| County Highway Agency | 35.8 | 99.2 | 1.2 | 3.33 |
| Town or Township Highway Agency | 0 | 0.2 | 0 | 15.25 |
| City or Municipal Highway Agency | 84.2 | 322.4 | 1.73 | 6.5 |
| State Park, Forest, or Reservation Agency | 0 | 0 | 0 | 0 |
| Local Park, Forest or Reservation Agency | 0 | 0 | 0 | 0 |
| Other State Agency | 0 | 0 | 0 | 0 |
| Other Local Agency | 0 | 0 | 0 | 0 |
| Private (Other than Railroad) | 0.8 | 1.8 | 0.13 | 0.37 |
| 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 | 7.6 | 5.4 | 0.91 | 0.67 |

## 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 2023 Targets *

### *Number of Fatalities:446.6*

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

The preliminary reported number of fatalities increase by about 20 percent from 2020 to 2021, as it increased from 398 to 479 fatalities, respectively. The five-year moving average fatalities from 2022 to 2023 are also projected to rise, although less aggressively, by 3.7 percent (430.6 to 446.6). With fatalities projected to keep rising, the five-year average projection of 446.6 is determined to be the 2023 target.

### *Number of Serious Injuries:995.4*

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

The original methodology used to project the five-year moving average number of A-Injuries for 2023 resulted in a target of 953.5 A-Injuries - roughly a 10% decrease from the previous year's target. This decrease of 10% is a significantly higher decrease compared to the typical observed decrease of A-Injuries dating back to 2016. For this reason, the five-year moving average target for A-Injuries has been adjusted to 995.4 to be more in line with the observed year-over-year decrease of five-year moving average A-Injuries.

### *Fatality Rate:1.695*

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

The projected rate of fatalities for 2023 increased due to the stability projected for VMT in 2021-2023. Combined with the fact the preliminary total fatalities for 2021 shows a large increase and the projected fatalities also show increases, the fatality rate is also projected to increase. Observing that the VMTs are not increasing in step with the observed fatality numbers impacts the five-year moving average - resulting in an increased fatality rate for 2023. The 2023 projected fatality rate of 1.695 is generally consistent with the rate of change in the five-year moving average as observed since 2017.

### *Serious Injury Rate:3.801*

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

The original methodology used to project the five-year moving average number of suspected A-Injuries per 100M VMT for 2023 resulted in 3.584. This decrease is a significantly higher decrease compared to the typical observed decrease of A-Injuries dating back to 2016. The 2022 target is 3.842 and while the serious injury rate is declining, a change from 3.584 from 3.842 is unrealistic. For this reason, the five-year moving average target for the rate of A-Injuries per 100M VMT has been adjusted to 3.801 to be more in line with the observed year-over-year decrease of five-year moving average for the rate of suspected serious injuries per 100M VMT.

### *Total Number of Non-Motorized Fatalities and Serious Injuries:199.4*

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

Five-year average non-motorized fatalities and serious injuries has been largely steady and flat since 2018. The five-year moving average has been hovering around 200 with minor fluctuations annually. The 2023 projected five-year moving average is no different with a target of 199.4.

## 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 May 24, 2022, 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 2022 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

| PERFORMANCE MEASURES | TARGETS | ACTUALS |
|---|---|---|
| **Number of Fatalities** | 411.6 | 414.8 |
| **Number of Serious Injuries** | 1030.5 | 1030.4 |
| **Fatality Rate** | 1.486 | 1.559 |
| **Serious Injury Rate** | 3.722 | 3.855 |
| **Non-Motorized Fatalities and Serious Injuries** | 200.0 | 201.6 |

1. Number of Total Fatalities. The 2021 forecast target for fatalities was 411.6 and the actual Five-Year Moving Average for 2021 (based on preliminary NMDOT data) is 414.8. The actual 2021 value compared to the forecast target in 2020 was an increase of 0.77 percent. This is a very small increase, showing that the forecasted value was relatively 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 2021 forecast target for total serious injuries was 1,030.5 and the actual Five-Year Moving Average for 2021 (based on preliminary NMDOT data) is 1,030.4. The actual value for 2021 compared to the forecast target for 2021 are nearly identical. New Mexico continues to experience a small, but steady decrease in the Five-Year Moving Average number of serious injuries in 2021. This year-over-year decreasing trend in Five-Year Moving Average number of serious injuries spans back to 2013.
3. Fatalities per 100 million vehicle miles travelled (VMT) or fatality rate. The 2021 forecast target for the rate of fatalities was 1.486 and the actual Five-Year Moving Average for 2021 (based on preliminary NMDOT data) is 1.554. The actual value for 2021 compared to the forecasted target in 2020 experienced an increase of 4.57 percent. This increase, to some extent, can be attributed to A significant increase in fatalities in 2021 and a relatively consistent number for statewide VMT.
4. Serious Injuries per 100 million VMT or serious injury rate. The 2021 forecast target for the rate of serious injuries was 3.722 and the actual Five-Year Moving Average for 2021 (based on preliminary NMDOT data) was 3.860. The actual value for 2021 compared to the forecasted target in 2020 was an increase of 3.7 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 cab potentially be attributed to an increase in the number of serious injuries in 2021 and a relatively steady number for statewide VMT.
5. Number of Non-motorized Fatalities and Serious Injuries. The 2021 forecast target for number of non-motorized fatalities and serious injuries was 200.0 and the actual Five-Year Moving Average for 2021

(based on preliminary NMDOT data) is 201.6. The actual Five-Year Moving Average value for 2021 compared to the forecast target in 2020 is an increase of 0.8 percent.

## *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-F100170) which included money from the HRRR Special Rule (23 U.S.C. 148(g))(1)) funding category - this project also received HSIP (23 U.S.C. 148) funds. This corridor is classified as a rural, major collector, with an ownership listed as 'State Highway Agency' and an AADT ranging from 1,344 to 1,471.

This project includes improving the sight distance of a vertical curve, drainage improvements, permanent signing/striping/fencing, and shoulder improvements. A 6-foot shoulder with rumble strips will be added as there are currently no existing shoulders. Additionally, a "SHARE THE ROAD" sign for bicycles and pedestrians will be included.

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

| PERFORMANCE MEASURES | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Number of Older Driver and Pedestrian Fatalities | 30 | 47 | 45 | 51 | 41 | 41 | 49 |
| Number of Older Driver and Pedestrian Serious Injuries | 80 | 83 | 101 | 90 | 107 | 55 | 82 |

At the time of populating this report (late August), the 2021 crash data was not listed on FARS. The NMDOT dataset prepared by UNM was used for calculating the 2021 fatality and A-injuries numbers for older pedestrians and older drivers. Since completing the 2021 Annual Report, the dataset prepared by UNM has been finalized. This resulted in the number for older driver and pedestrian serious injuries changing from 54 to 55. There is a conflict between the FARS and UNM datasets for the number of older pedestrian fatalities for 2020. FARS shows 7 while the UNM dataset shows 8. The number shown in FARS is listed in the table for Question 39.

# 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. HSIP obligation rates help to demonstrate the continuing improvements to program effectiveness. Getting as much HSIP funding obligated to safety improvement projects as possible is one way to show the program is working.
2. Increasing awareness of safety issues, like the pedestrian fatality rate, help to communicate the importance of individual behavior and choice, while also highlighting the need to push for infrastructure improvements. Promoting safety issues raises awareness and helps to promote and develop stronger safety culture in New Mexico. To be most effective in allocating safety funds NMDOT continues to build capacity for data-driven decision making. By following the data and promoting awareness of the safety issues highlighted in the data, NMDOT is cultivating safety culture by linking individual choices to safety outcomes.

3. Policy change includes encouraging the adoption of Vision Zero, Towards Zero Deaths and Complete Streets policies at the state and local level. As more local jurisdictions adopt or consider policies like Vision Zero and Complete Street, it demonstrates the improving safety culture in New Mexico. When these policies are adopted, it shows the work NMDOT does to promote safety culture is having a positive impact.
4. Other-Development of improved HSIP internal and external procedures include strengthening the capacity and expertise of the NMDOT Safety Committee by adding additional voting members like the Roadside Design Manager and the Bicycle, Pedestrian and Equestrian Coordinator. These new perspectives and expertise facilitate a more thorough and wide-ranging, multi-disciplinary discussion when considering HSIP funding applications and provide stronger guidance for HSIP programmatic development. As NMDOT builds HSIP capacity for data analysis and has more staffing resources we can do the work needed to support decision making on how the HSIP will be structured and administered over the next 5 to 10 years. This decision making

is needed to finalize the HSIP Manual to document the processes and procedures required of all HSIP applicants. As NMDOT moves closer to being able to make these decisions regarding program structure it demonstrates the successful incremental progress.

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

The NMDOT completed the update of the 2021 Strategic Highway Safety Plan. A major change in this effort is shifting from analyzing fatal crashes and A-injury crashes to focusing on the total number of 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 data tools for local and tribal agencies.

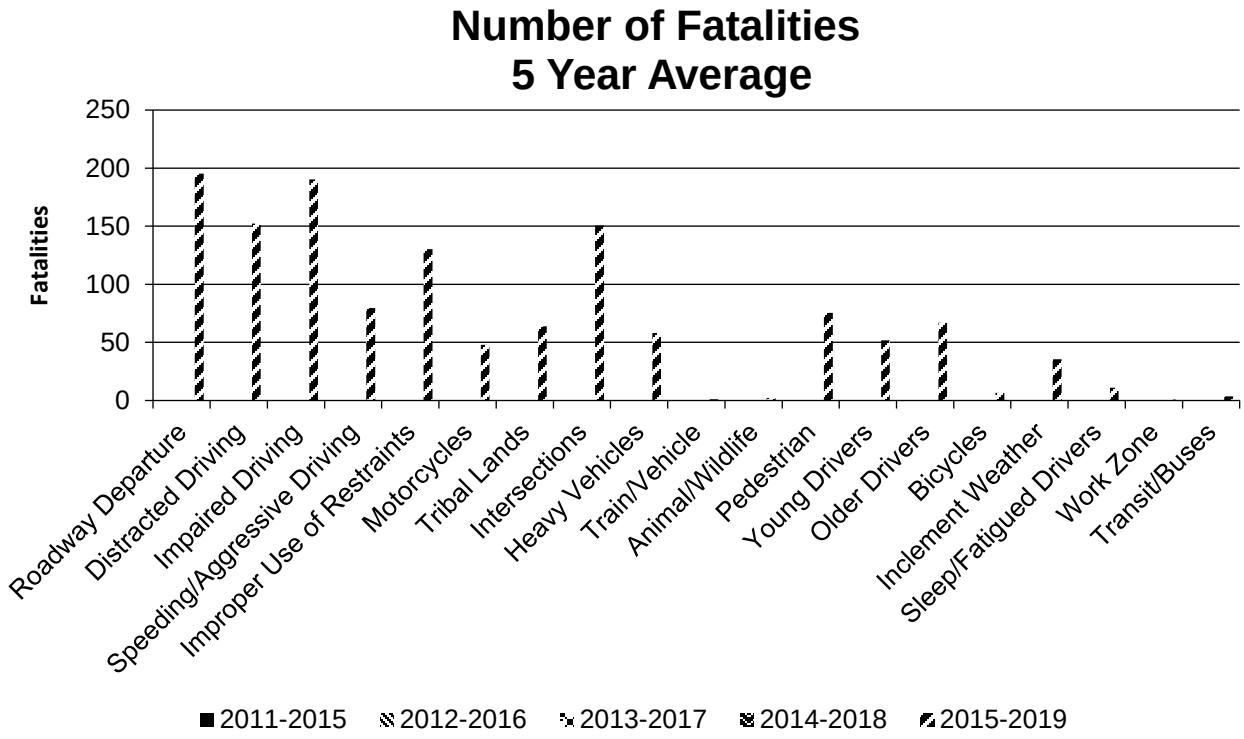
## *Effectiveness of Groupings or Similar Types of Improvements*

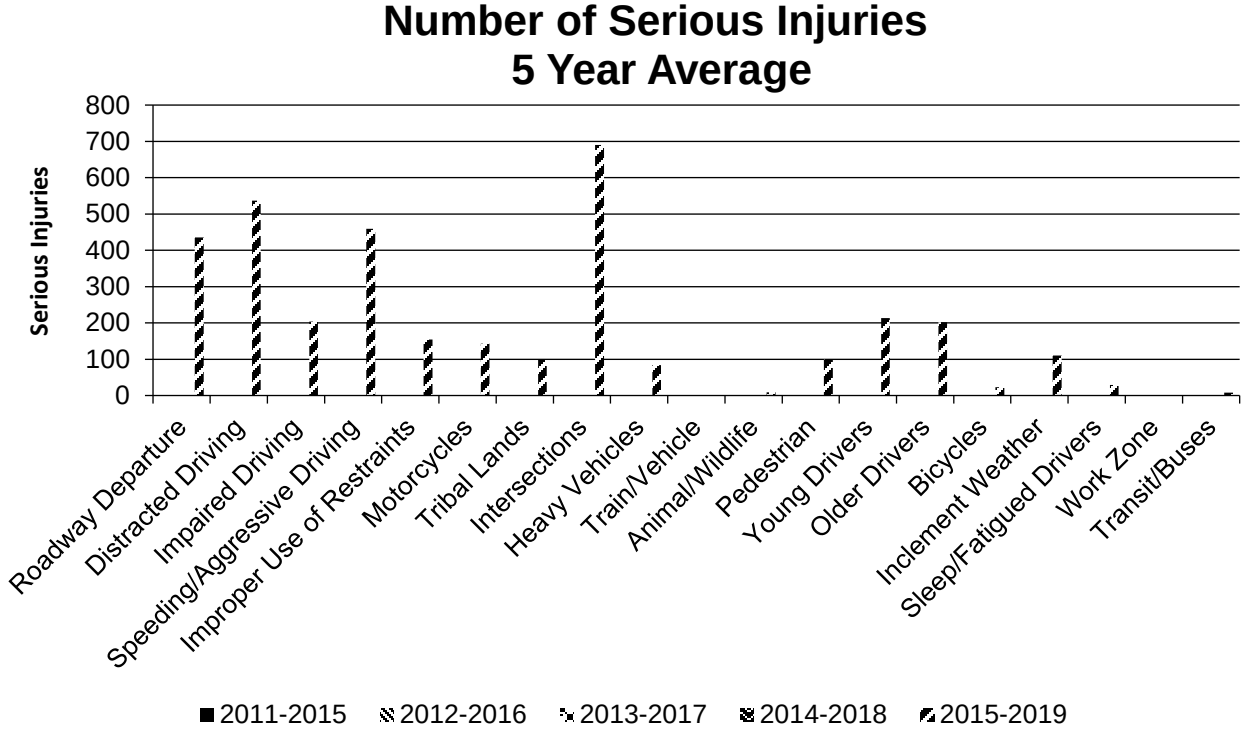
### Present and describe trends in SHSP emphasis area performance measures.

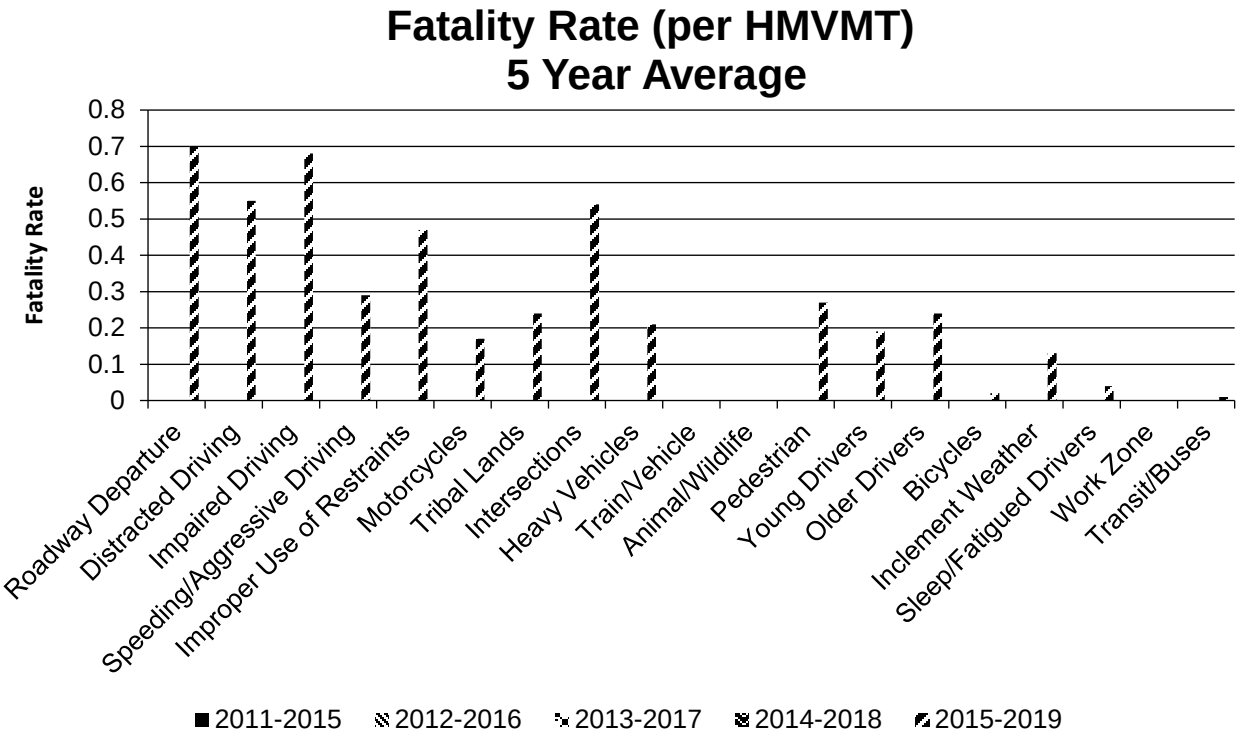
**Year 2019**

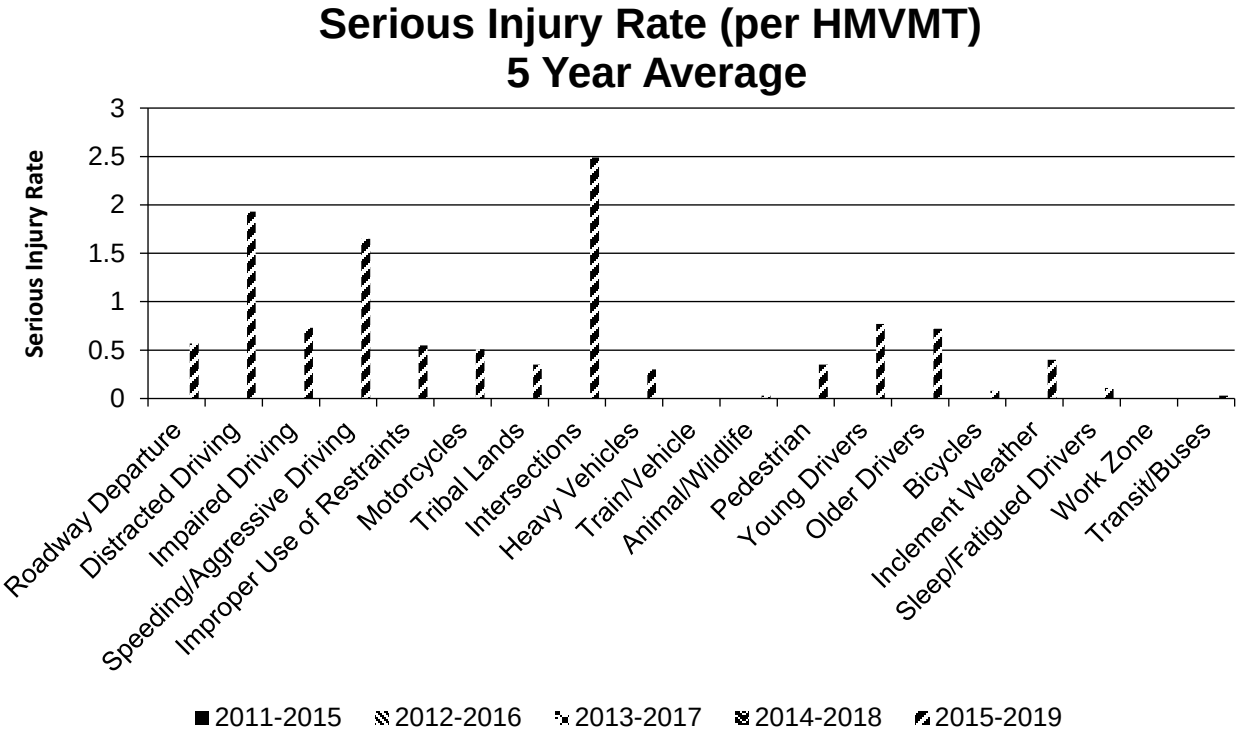
| SHSP Emphasis Area | Targeted Crash Type | Number of Fatalities (5-yr avg) | Number of Serious Injuries (5-yr avg) | Fatality Rate (per HMVMT) (5-yr avg) | Serious Injury Rate (per HMVMT) (5-yr avg) |
|---|---|---|---|---|---|
| Roadway Departure | Run-off-road | 195.4 | 435.8 | 0.7 | 0.57 |
| Distracted 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 | 64 | 98.2 | 0.24 | 0.35 |
| Intersections | Intersections | 150.6 | 690.4 | 0.54 | 2.49 |
| Heavy Vehicles | Truck-related | 58.2 | 83.6 | 0.21 | 0.3 |
| Train/Vehicle | Other (define) | 1 | 0.6 | 0 | 0 |
| Animal/Wildlife | Vehicle/animal | 2.2 | 9 | 0 | 0.03 |
| Pedestrian | Vehicle/pedestrian | 75.6 | 98.4 | 0.27 | 0.35 |
| Young Drivers | Other (define) | 51.8 | 213.4 | 0.19 | 0.77 |
| Older Drivers | Other (define) | 67 | 201.4 | 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 |
| Sleep/Fatigued Drivers | All | 11 | 29.4 | 0.04 | 0.11 |

| 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) |
|---|---|---|---|---|---|
| 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 Vehicles
Train/Vehicle
Animal/Wildlife
Pedestrian
Young Drivers
Older Drivers
Bicycles
Inclement Weather
Sleep/Fatigued Drivers
Work Zone
Transit/Buses
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019


Number of Serious Injuries
5 Year Average
Serious Injuries
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 Vehicles
Train/Vehicle
Animal/Wildlife
Pedestrian
Young Drivers
Older Drivers
Bicycles
Inclement Weather
Sleep/Fatigued Drivers
Work Zone
Transit/Buses
2011-2015
2012-2016
2013-2017
2014-2018
2015-2019




The 2021 HSIP Annual Report data is used for the 2022 HSIP Annual Report - both of these two HSIP Annual Reports use Emphasis Area data from the current 2021 New Mexico Strategic Highway Safety Plan. Emphasis Area data/trends have not been analyzed in the summer of 2022 due to the significant effort required. NMDOT intends to update the Emphasis Area trends as part of the SHSP update scheduled for kick-off in 2023.

The numbers shared in the table above are five-year moving average for 2019 (considers fatalities and A-Injuries from 2015-2019).

## *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?

01/25/2022

### What are the years being covered by the current SHSP?

From: 2013 To: 2026

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

2024

The SHSP was updated in 2021, but NMDOT is planning to launch a new SHSP development process in FFY 2023. An RFP for consultant services should be out in October 2022 and will begin with VRU Assessment and then roll the VRU assessment up into the new SHSP.

The crash data years 2013 through 2019 are represented in the current 2021 New Mexico SHSP.

### 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 | 0.99 | | | | | | | | |
| | 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** | **0.97** | **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]

None

**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.

2022 New Mexico Highway Safety Improvement Program

**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 was originally scheduled to start in early 2022 but was pushed back to mid-2023 due to Covid.

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 complete.

3. A Data Dictionary that includes the MIRE FDE definitions is currently under development and will be added to NMDOT's public facing website. The Data Dictionary has been completed and NMDOT is awaiting its deployment to the state website. NMDOT is also starting an update project to the dictionary to comply with HPMS 9 definitions and updated assets that are being collected.

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) - this project is complete.

5. The NMDOT initiated a domain change for the Surface Type feature class to combine both HPMS and MIRE data elements. This change is complete.

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.

7. The NMDOT has contracted for a full asset collection on all state owned and federal aid system roads. This will be a LiDAR collection and should start early 2023.

## Optional Attachments

Program Structure:

Q13_2021_FHWA_HSIP_Annual_Report.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.