NEW MEXICO

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2018 ANNUAL REPORT

U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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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 Planning Bureau (SPB) of the New Mexico Department of Transportation (NMDOT) Asset Management and Planning Division (AMPD). The 2018 HSIP Annual Report is based on the best and most recent available transportation safety data and information, which is the FFY 2017 program. To facilitate a transparent stakeholder process, the NMDOT SPB, for infrastructure related improvements, coordinates with internal and external safety partners in New Mexico through a comprehensive communication process. In the preparation of the Highway Safety Improvement Program (HSIP), the SPB considers 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 2013 there has been a 9.8 % increase in fatalities from 347 to 379. Suspected serious injuries (A) declined by 29.0% from 1,624 to 1,153 during the same reporting period.

With respect to the five-year rolling fatality average, from 2013 to 2017 there has been a slight increase in the overall trend in fatalities. A comparison of annual values of the five-year rolling average indicates an increase of 2.4 % in 2016 to 355.2 fatalities compared to 2013 with 347.0 fatalities. For suspected serious injuries (A) there has been a consistent reduction in New Mexico for the past five years (2012 to 2016) from 1624 to 1153, a decrease of 29.0%. Similar decreases in the five-year rolling average for the suspected serious (A) injury rate have been noted.

The rate of fatalities in New Mexico increased from 2013 to 2017 (preliminary estimate) from 1.240 to 1.335 fatalities per 100M VMT (vehicle miles of travel), or by 7.7%. The five-year moving average declined from 1.361 to 1.325 fatalities per 100M VMT, or by 2.6%.

The rate of serious injuries in New Mexico declined from 2012 to 2016 from 6.353 to 4.146 serious injuries per 100M VMT (vehicle miles of travel), or by 34.7%. The five-year moving average declined from 7.062 to 5.082 serious injuries per 100M VMT, or by 28.0%.

There has been an increase in non-motorized fatalities and suspected serious injuries from 2012 to 2016 from 157 to 191, an increase of 21.6% and an increase in the five-year rolling average of 15.9% (161.8 to 187.6)

In FFY 2017, 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 further development of a structured list of Road Safety Audits (RSAs) planned and performed, and a comprehensive, organized, process of consultation with internal and external project stakeholders.

The most recent update of the NM Strategic Highway Safety Plan (SHSP) was approved and distributed to safety stakeholders in March 2017.

In 2017 and 2018, NMDOT completed an update of performance targets for each of the five core performance measures for fatalities (F), suspected serious injuries (A), fatality rate, suspected serious injury rate, and non-motorized fatalities and suspected serious injuries (A).

NMDOT initiated an effort to develop an HSIP Manual which is scheduled for completion in late 2018. In 2017, a pilot effort was initiated to develop a Multi Objective Decision (MODA) Process for the prioritization of current HSIP projects and may be refined in future years. It is anticipated that this process will be referenced in the HSIP Manual that is under development. In 2018 NMDOT initiated a network screening process which will focus first on the identification of high risk locations on rural and urban two-lane primary roads on the NMDOT network and on the identification of high pedestrian crash locations.

To more effectively manage the NMDOT HSIP program in 2018, NMDOT is augmenting staff with consultant support and is completing an effort to hire a full-time HSIP staff person to replace the individual that resigned earlier this year.

Other accomplishments include continued improvements in crash data reporting and analysis as evidenced by the improved level of detail and quality of data in this year's report. Over the past several years, there has been progress in the location of crashes, an improved ability to identify crash occurrence by functional class and ownership, and an ability to calculate, on a statewide basis, crash rates to assess trends for safety performance targets. Local safety road projects are a key component in the HSIP with $1,029,276 obligated for Federal Fiscal Year (FFY) reporting period of 2017. The NMDOT HSIP Safety Program is including a more detailed and extensive analysis of safety performance, Emphasis Areas and strategies planned in HSIP projects are based on the SHSP to effectively reduce fatalities and severe crashes on all roads in New Mexico. NMDOT recently initiated a study to identify high risk locations on principal arterials and for pedestrian crashes using recommended network screening methods contained in Part B of the HSM.

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 HSIP program is in a state of transition. In 2018, the SPB who manages the HSIP program is restructuring its safety management process to adopt a focus on reviewing the transportation network to identify and rank sites based on the potential to reduce fatal and injury crashes. Once the locations exhibiting these issues are identified, an evidence-based diagnosis and countermeasure process will be followed. The SPB will work with NMDOT Districts and tribal and local public agencies to implement this process. The procedures to accomplish this will be included in the HSIP Manual that is under development. It is anticipated that this process will be fully online for FFY 2020.

The structure of the HSIP program is multidisciplinary and at various levels includes NMDOT, local agency stakeholders for those jurisdictions developing projects, with FHWA oversight as appropriate. The HSIP program is monitored by the NMDOT Safety Committee which includes members from engineering, design, finance, rail, and traffic from within NMDOT and the FHWA. 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-Statewide Planning Bureau

Enter additional comments here to clarify your response for this question or add supporting information.

The HSIP program is located in and administered by the NMDOT Statewide Planning Bureau.

How are HSIP funds allocated in a State?

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

Enter additional comments here to clarify your response for this question or add supporting information.

To more efficiently allocate funds and help investigate need on a more comprehensive basis New Mexico is currently developing a Multi Objective Decision Analysis (MODA) process. This process will include quantitative and qualitative measures to support the prioritization of project locations that demonstrate a high safety need based on the described network screening process. The SPB is also working on an HSIP Manual, the network screening of two-lane rural and urban NMDOT roadways to identify high-risk locations, and the identification of high pedestrian crash locations.

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 2017), 3.8% of NM HSIP funds are obligated for local road projects , and 96.2% are obligated for Statewide DOT projects. The majority of the HSIP projects in the HSIP Program for FFY 2017 were approved by the Safety Committee based on applications and/or RSA reports. In general, these applications were reviewed and, if approved, were prioritized by the NMDOT Safety Committee, 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.

Traffic Engineering/Safety
Design
Planning
Maintenance
Operations
Districts/Regions
Local Aid Programs Office/Division
Governors Highway Safety Office
Other-NMDOT Districts
Other-Statewide Planning Bureau

Enter additional comments here to clarify your response for this question or add supporting information.

The NMDOT Safety Committee is composed of voting members representing Design and Construction, Asset Management and Planning Division, and the Modals Division, as well as advisory members from FHWA-NM, the Statewide Transportation Improvement Program Unit, Technical Groups and Rail. The Safety Committee reviews all applications to ensure a proposed project is consistent with the SHSP and will contribute to achievement of NMDOT safety targets. Local stakeholders are required to verify their support for a project. An NMDOT district must verify that a proposed project meets the HSIP eligibility requirements and is consistent with the NMDOT STIP and scheduling considerations.

Describe coordination with internal partners.

The NMDOT Safety Committee meets monthly to review the HSIP, and confirm the program is meeting the goals and objectives of the NM SHSP, and safety targets. The Safety Committee is composed of the following voting and advisory members:

Voting members:

- Design and Construction Director
- Asset Management and 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 local project tracking and oversight needs. In addition, the HSIP Coordinator, in overseeing the SHSP, liaisons closely with NMDOT Traffic Safety Division which is responsible for the NMDOT Highway Safety Plan. The Modals Division Director is the NM representative to the Governor's Highway Safety Commission.

Identify which external partners are involved with HSIP planning.

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

Enter additional comments here to clarify your response for this question or add supporting information.

In the last several years, NMDOT has made efforts to engage local agencies such as MPOs, RTPOs, and tribal agencies in SHSP safety planning and development, and setting of annual safety targets. An example, for safety target setting, MPOs either adopt those of NMDOT or develop their own.

Describe coordination with external partners.

All of the external partners listed in the previous question may be involved in the coordination process, particularly for the conduct of RSAs. Examples include data collection by local law enforcement, data management by academia such as the University of New Mexico, and the provision of data for the conduct of

RSAs. Typically, as a part of RSAs, local partners are also involved in identifying location specific phenomena, 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, and the identification of lessons learned related to the implementation of countermeasures, and identification of context sensitive issues whether they are cultural or behavioral.

Have any program administration practices used to implement the HSIP changed since the last reporting period?

Yes

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

The program is transitioning towards the adoption of HSIP procedures that will be defined in the HSIP Manual and support a more robust project development process. The HSIP program is moving towards a more data driven process, based in the adoption of a more safety performance-based process as described in the HSM, particularly by the use of network screening to identify high crash locations. This process includes identification of high crash pedestrian sites.

Are there any other aspects of HSIP Administration on which the State would like to elaborate?

Yes

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

The NMDOT made significant progress in 2016-2018 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 SPB implemented a comprehensive and organized process of communication with internal and external stakeholders.

Program Methodology

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

No

To upload a copy of the State processes, attach files below.

File Name:

Enter additional comments here to clarify your response for this question or add supporting information.

Currently, an HSIP Manual is being developed with completion anticipated in late 2018. This manual will serve as a guide to the execution and conduct of the HSIP program in the coming years that is consistent with the SHSP and other safety initiatives.

Select the programs that are administered under the HSIP.

Median Barrier
Roadway Departure
Sign Replacement And Improvement

Enter additional comments here to clarify your response for this question or add supporting information.

The programs listed are based on safety concerns identified in the SHSP and by stakeholders as a safety need.

Program: Median Barrier

Date of Program Methodology: 9/30/2017

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area
FHWA focused approach to safety

What is the funding approach for this program? [Check one]

Funding set-aside

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
Fatal and serious injury crashes only	Traffic Volume Lane miles	Median width Functional classification

What project identification methodology was used for this program? [Check all that apply]

Crash frequency
Other-Crash severity

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

2018 New Mexico Highway Safety Improvement Program
No

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

Describe the methodology used to identify local road projects as part of this program.

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).

Rank of Priority Consideration

Available funding : 100

Enter additional comments here to clarify your response for this question or add supporting information.

This program addresses SHSP Emphasis Area priority to reduce the severity of cross median crashes. The NMDOT installed cable median barriers on interstate routes to reduce the probability of a vehicle crossing the median and hitting an oncoming vehicle.

Additional comment for the “How are projects under this program advanced for implementation” section:

For projects advanced for implementation and inclusion in the Median Barrier program, NMDOT issues a call for projects to Districts. Based on responses, then a list of those projects is reviewed and compiled. NMDOT submits the list to the FHWA Division Office for review/approval. The projects approved by this process are advanced for implementation.

Program: Roadway Departure

Date of Program Methodology: 9/30/2017

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area
FHWA focused approach to safety

What is the funding approach for this program? [Check one]

Funding set-aside

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
All crashes	Traffic	Functional classification
Fatal and serious injury crashes only	Lane miles	Roadside features

What project identification methodology was used for this program? [Check all that apply]

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

Describe the methodology used to identify local road projects as part of this program.

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).

Rank of Priority Consideration

Available funding : 100

Enter additional comments here to clarify your response for this question or add supporting information.

This program addresses an SHSP Emphasis Area. This emphasis area had the highest ranking of all SHSP emphasis areas and largest frequency of fatal (F) and serious crashes (A). Projects in this program clearly address the SHSP and HSIP objective to reduce the frequency and severity of crashes.

Additional comment for the “How are projects under this program advanced for implementation” section:

For projects advanced for implementation and inclusion in the Roadway Departure program, NMDOT issues a call for projects to Districts. Based on responses, then a list of those projects is reviewed and compiled.

NMDOT submits the list to the FHWA Division Office for review/approval. The projects approved by this process are advanced for implementation.

Program: Sign Replacement And Improvement

Date of Program Methodology: 9/30/2017

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area
FHWA focused approach to safety

What is the funding approach for this program? [Check one]

Other-Based on need to maintain minimum sign retroreflectivity for signs

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
Fatal and serious injury crashes only	Traffic	Functional classification

What project identification methodology was used for this program? [Check all that apply]

Other-Reduction in total crashes

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

No

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

Yes

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program advanced for implementation?

Other-NMDOT Safety 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).

Rank of Priority Consideration

2018 New Mexico Highway Safety Improvement Program

Available funding : 100

Enter additional comments here to clarify your response for this question or add supporting information.

In recent years with the retroreflectivity requirements for signs contained in the MUTCD, there has been an increased emphasis on maintaining signs to minimum levels of retroreflectivity to address driver visibility needs particularly at night and in inclement weather. Sign replacement and improvement leads to better conspicuity and legibility of information provided to drivers.

Additional comment for the “How are projects under this program advanced for implementation” section:

For projects advanced for implementation and inclusion in the Sign Replacement and Improvement program, NMDOT issues a call for projects to Districts. Based on responses, then a list of those projects is reviewed and compiled. NMDOT submits the list to the FHWA Division Office for review/approval. The projects approved by this process are advanced for implementation.

What percentage of HSIP funds address systemic improvements?

8.1

HSIP funds are used to address which of the following systemic improvements? Please check all that apply.

Other-Pedestrian Safety

Enter additional comments here to clarify your response for this question or add supporting information.

In 2014, New Mexico had the highest pedestrian fatality rate per capita of all 50 states, and in 2015, based on preliminary data, still ranked in the highest six states. In 2016 and 2017 New Mexico pedestrian fatalities and serious injuries continued an upward trend compared to prior years. For this reason and historical concerns, New Mexico is designated as a Pedestrian Safety Focus State by the FHWA.

What process is used to identify potential countermeasures? [Check all that apply]

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

Enter additional comments here to clarify your response for this question or add supporting information.

NMDOT is currently conducting a network screening process to identify high pedestrian crash locations statewide. This effort, using HSM Part B techniques, will provide a list of sites based on crash frequency that will facilitate a more focused approach in diagnosis, countermeasure development, and ultimately the development of projects using a data driven approach based on crash data.

The pedestrian safety projects in the FFY 2017 HSIP program focus on improved training of law enforcement officers relating to crash reporting, improvement of crash system management, system planning, and intersection improvements that enhance pedestrian safety.

The pedestrian safety projects in the FFY 2017 HSIP program focus on improved training of law enforcement officers relating to crash reporting, improvement of crash system management, system planning, and intersection improvements that enhance pedestrian safety.

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

The NMDOT HSIP includes four ITS projects in the FFY 2017 program. The HSIP funds obligated for these projects is $466,000. The ITS projects are primarily oriented to improvements in data collection, traffic and safety management on a system-wide basis. Secondly, the projects will provide ITS technology to mitigate and possibly prevent secondary crash types and disseminate road condition advisories to the traveling public.

At this time the HSIP program does not consider safety initiatives related to connected vehicle 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.

HSM methods are being used to develop an enhanced safety analysis process consistent with HSM approaches outlined in Part B. The network screening effort currently underway will focus initially on two-lane roads in rural and urban areas. This will include the development of a data set for similar groups of sites using a sliding window approach, e.g., for two lane rural roads. The data sets will be used to develop safety performance functions for each group in addition to applying Empirical Bayes (EB) methods to calculate the expected crash frequency. Sites will then be ranked based on the difference between the expected and predicted average crash frequency. The product will be a list of high crash sites that can be used to develop HSIP projects in future years. A similar list of high crash pedestrian sites will be used based on HSM Part B methods using a frequency-based method.

Have any program methodology practices used to implement the HSIP changed since the last reporting period?

Yes

Describe program methodology practices that have changed since the last reporting period.

See comments in Question #21.

Are there any other aspects of the HSIP methodology on which the State would like to elaborate?

Yes

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

NMDOT is currently working on the development of an HSIP Guide which is scheduled to be completed late in 2018 or early 2019. Over the past year there has been internal discussions on the design and conduct of the HSIP program which has helped create an awareness of safety needs and long-term goals.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

Federal Fiscal Year

Enter additional comments here to clarify your response for this question or add supporting information.

FFY 2017

Enter the programmed and obligated funding for each applicable funding category.

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$14,705,155	$23,992,000	163.15%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$1,887,424	$1,887,424	100%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$1,073,461	$1,495,235	139.29%
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	$17,666,040	$27,374,659	154.96%

Enter additional comments here to clarify your response for this question or add supporting information.

Notes:
1. Any project listed as some variation of 164 is included in the HSIP Section 164 Penalty Funds category.
2. Funding categories that have $0 inputs had funds programmed or obligated.
3. Some funding categories may have an obligated amount that is higher than the programmed amount. This is partially due to the fact that a project obligated in a prior fiscal year required a bid or letting adjustment in FFY 2017, thus additional funds were obligated in FFY 2017.

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

$270,000

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

$1,029,276

Enter additional comments here to clarify your response for this question or add supporting information.

Two CN values were identified as non-state projects.
9900531
9900532
These two CN values and their programmed/obligated costs were summed and listed as the answer.

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

$1,523,461

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

$2,393,589

Enter additional comments here to clarify your response for this question or add supporting information.

The non-infrastructure projects funded with HSIP funds are related to: training of law enforcement officers to improve crash reporting and investigation; continued implementation of the E-Citation use, improvement of Traffic Records Coordinating Committee coordination and gap analysis; and continued development/execution of statewide safety planning efforts.

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

0%

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

0%

Enter additional comments here to clarify your response for this question or add supporting information.

No transfers made.

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. It is anticipated that improvements in project scoping can help mitigate this issue.

Does the State want to elaborate on any other aspects of it's progress in implementing HSIP projects?

Yes

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

The NMDOT HSIP Coordinator left the position in early 2018 and NMDOT has since hired a new coordinator who will start in fall of 2018. To augment efforts for the HSIP program and annual report preparation, NMDOT added consultant support.

General Listing of Projects

List the projects obligated using HSIP funds for the reporting period.

													RELATIONSHIP TO SHSP	
PROJECT NAME	**IMPROVEMENT CATEGORY**	**SUBCATEGORY**	**OUTPUTS**	**OUTPUT TYPE**	**HSIP PROJECT COST($)**	**TOTAL PROJECT COST($)**	**FUNDING CATEGORY**	**FUNCTIONAL CLASSIFICATION**	**AADT**	**SPEED**	**OWNERSHIP**	**METHOD FOR SITE SELECTION**	**EMPHASIS AREA**	**STRATEGY**
9900531	Non-infrastructure	Enforcement	1	E-CITATION AND CRASH SYSTEM SUPPORT AND EXPANSION		$759276	Penalty Funds (23 U.S.C. 164)		0			Non-crash-related	Data	
9900532	Non-infrastructure	Enforcement	1	PROVIDE TRAINING TO LAW ENFORCEMENT FOR CRASH FORMS		$270000	HSIP (23 U.S.C. 148)		0			Non-crash-related	Data	
2100260	Roadway	Roadway - other	11.998	Miles		$0	HSIP (23 U.S.C. 148)	Rural Minor Arterial	784	35	State Highway Agency	Spot	Lane Departure	
4101090	Roadside	Barrier - other	5.96088400000002	Miles		$218259.54	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	10,791	75	State Highway Agency	Spot	Prevention of animal crashes	
4101130			6	Miles		$44265.01	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	15,542	75	State Highway Agency	Spot		
6100850	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1.287	Miles		$296620.91	HRRR Special Rule (23 U.S.C. 148(g)(1))	Urban Principal Arterial (UPA) - Other	6,092	45	State Highway Agency	Spot	Bicyclists	
6101080	Roadway	Roadway - other	6	Miles		$1887424	HSIP (23 U.S.C. 148)	Rural Major Collector	276	45	State Highway Agency	Spot	Roadway Departure	
6101120	Roadside	Barrier - other	6.0932	Miles		$2073763.58	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial (RPA) - Other	5,172	70	State Highway Agency	Spot	Prevention of animal crashes	
9900533	Non-infrastructure	Data/traffic records	1	Traffic Records Coordinator		$0	HSIP (23 U.S.C. 148)		0		State Highway Agency	Non-crash-related	Data	
9900701	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	26.38	Miles		$0	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	14,990	75	State Highway Agency	Spot	Sign Upgrades	
9900702	Intersection traffic control	Intersection traffic control - other	1	Intersections		$102615.39	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	5,550	40	State Highway Agency	Spot	Intersections	
9900705	Lighting	Intersection lighting	1	Interchanges		$0	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	6,956	75	State Highway Agency	Spot	Lighting	
9900706	Roadside	Barrier - other	7	Miles		$18895.67	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	14,024	55	State Highway Agency	Spot	Roadway Departure	
9900708	Roadside	Barrier - other	134.5	Miles		$0	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	16,954	75	State Highway Agency	Spot	Roadway Departure	

													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
9900709	Roadside	Barrier - other	160.9	Miles		$0	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	10,130	75	State Highway Agency	Spot	Roadway Departure	
9900710	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	94.3	Miles		$0	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,890	45	State Highway Agency	Spot	Sign Upgrades	
9900711	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	30.05	Miles		$0	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,161	40	State Highway Agency	Spot	Sign Upgrades	
9900712	Lighting	Intersection lighting	1	Intersections		$10906.43	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	1,232	55	State Highway Agency	Spot	Intersections	
9900713	Shoulder treatments	Widen shoulder - paved or other	2	Miles		$0	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,072	50	State Highway Agency	Spot	Roadway Departure	
9900714	Roadway	Roadway - other	0.600000000000023	Miles		$9134.09	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	14,618	75	State Highway Agency	Spot	Roadway Departure	
9900717	Roadway	Pavement surface - high friction surface	0.5	Miles		$0	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	21,293	65	State Highway Agency	Spot	Roadway Departure	
9900721	Roadside	Barrier - other	3	Miles		$2639214.79	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	8,625	75	State Highway Agency	Spot	Roadway Departure	
9900725	Roadway signs and traffic control	Roadway signs and traffic control - other	118	Miles		$771162.46	HSIP (23 U.S.C. 148)	Rural Minor Arterial	9,222		State Highway Agency	Spot	Sign Upgrades	
9900726	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	72.5	Miles		$283466.2	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,022	40	State Highway Agency	Spot	Sign Upgrades	
9900727	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	160.9	Miles		$321392.56	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	10,130	75	State Highway Agency	Spot	Sign Upgrades	
9900728	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	22.7	Miles		$80206.6	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,760	65	State Highway Agency	Spot	Sign Upgrades	
9900729	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	17.8	Miles		$77732.82	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,617	55	State Highway Agency	Spot	Sign Upgrades	
9900730	Roadside	Barrier - other	53.8	Miles		$439957.91	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	23,194	40	State Highway Agency	Spot	Roadway Departure	
9900731	Roadside	Barrier - other	161	Miles		$522187	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	10,130	75	State Highway Agency	Spot	Roadway Departure	
9900732	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	17.5	Miles		$95908.64	Penalty Funds (23 U.S.C. 164)	Rural Minor Arterial	25,342	45	State Highway Agency	Spot	Sign Upgrades	

													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
9900820	Non-infrastructure	Non-infrastructure - other	1	MAINTAIN THE STATEWIDE CONTINUOUS COUNT STATION NETWORK		$132808	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial (RPA) - Interstate	22,092	75	State Highway Agency	Non-crash-related	Data	
9900821	Non-infrastructure	Non-infrastructure - other	1	MAINTAIN THE STATEWIDE CONTINUOUS COUNT STATION NETWORK		$135490.56	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial (RPA) - Interstate	17,228	75	State Highway Agency	Non-crash-related	Data	
9900822	Non-infrastructure	Non-infrastructure - other	1	MAINTAIN THE STATEWIDE CONTINUOUS COUNT STATION NETWORK		$64353.69	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial (RPA) - Interstate	13,335	75	State Highway Agency	Non-crash-related	Data	
9900824	Non-infrastructure	Non-infrastructure - other	1	MAINTAIN THE STATEWIDE CONTINUOUS COUNT STATION NETWORK		$133306.95	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	17,937	75	State Highway Agency	Non-crash-related	Data	
A301790	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections		$540000	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	13,894	35	State Highway Agency	Spot	Intersections	
E100160	Roadway	Roadway - other	2.3	Miles		$10190483.35	HSIP (23 U.S.C. 148)	Urban Minor Arterial	8,330	40	State Highway Agency	Spot	Bicyclists	
LC00240	Shoulder treatments	Widen shoulder - paved or other	8	Miles		$4357472.64	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	32,007	65	State Highway Agency	Spot	Roadway Departure	
S100270			0	Systemic		$0	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Pedestrians	
U900301	Non-infrastructure	Transportation safety planning	0	Transportation Safety Planning		$448354.08	HSIP (23 U.S.C. 148)		0		State Highway Agency	Non-crash-related	Data	
U900380	Non-infrastructure	Transportation safety planning	0	Transportation Safety Planning		$450000			0		State Highway Agency	Non-crash-related	Data	

Enter additional comments here to clarify your response for this question or add supporting information.

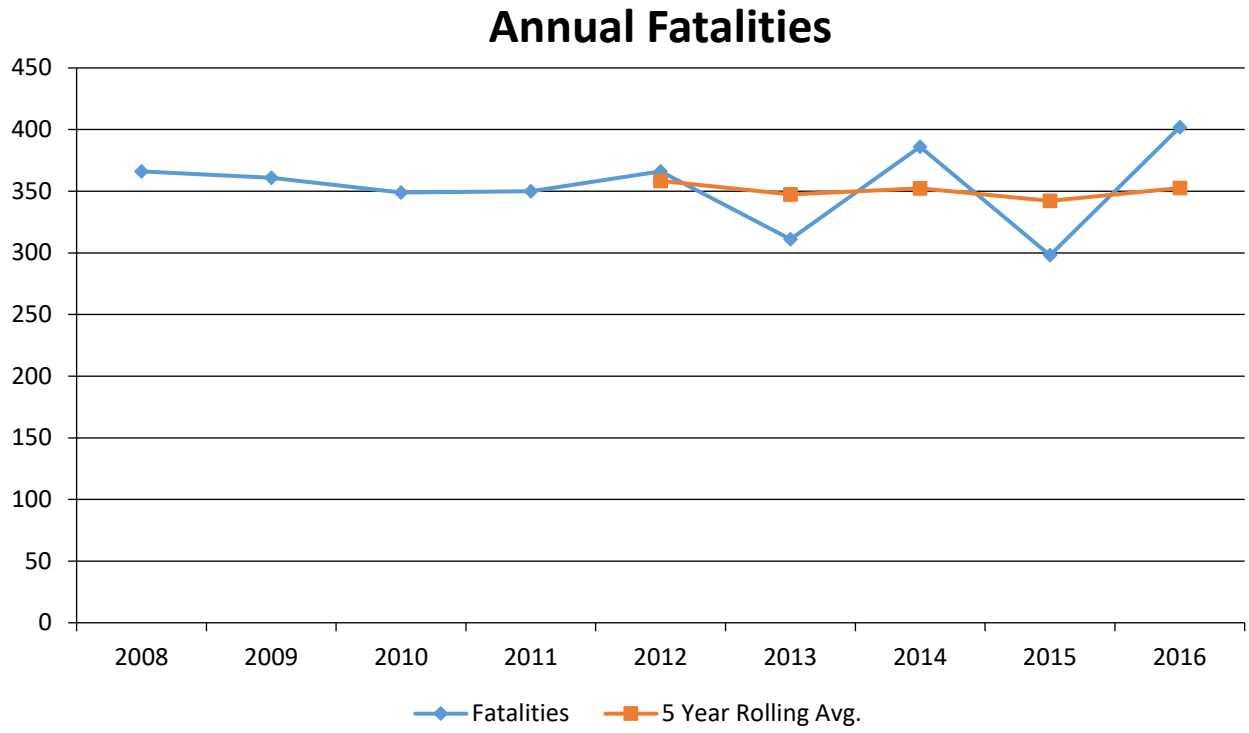
Some data was not available for particular fields in the "Project Listing" table. Available data was inserted where possible.

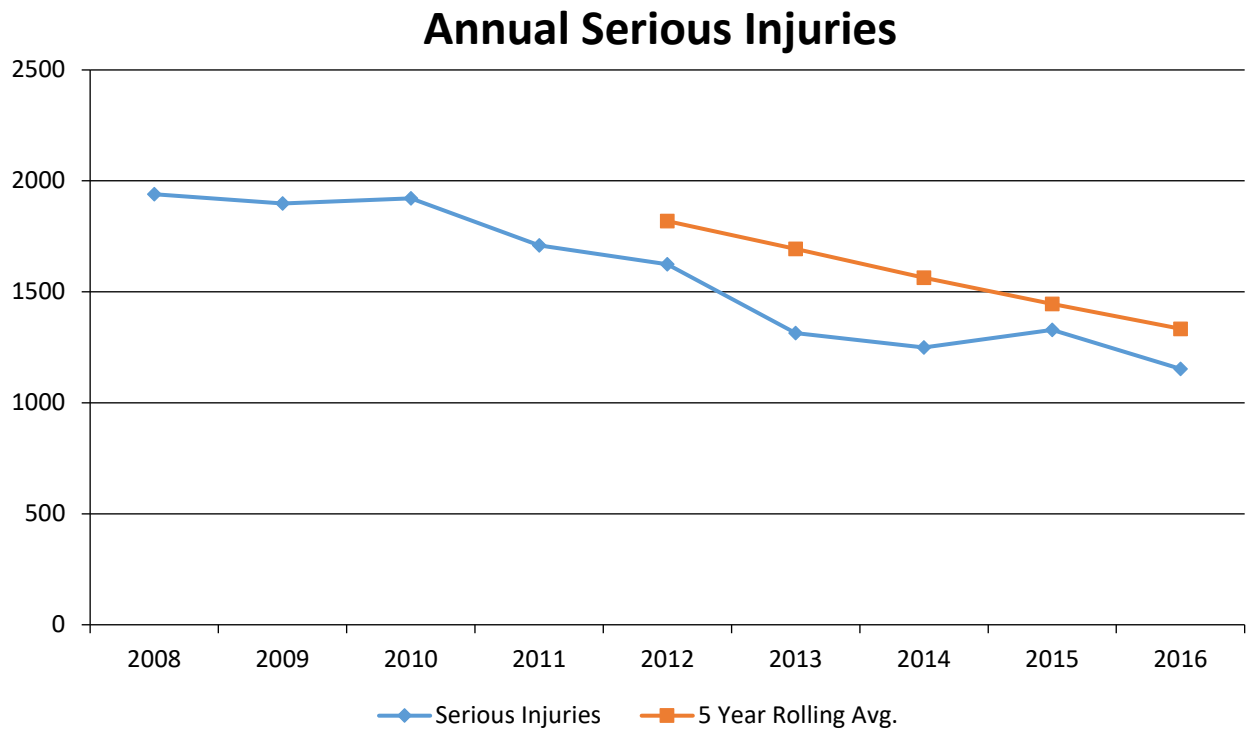
Safety Performance

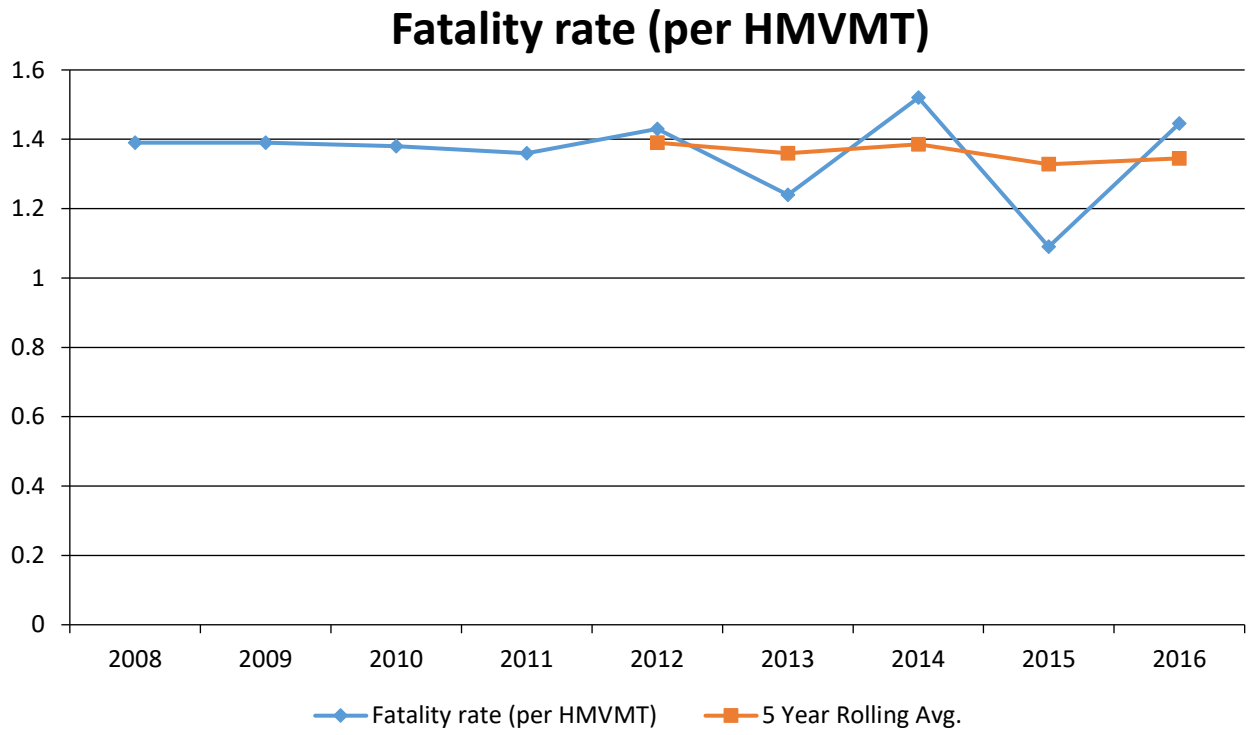
General Highway Safety Trends

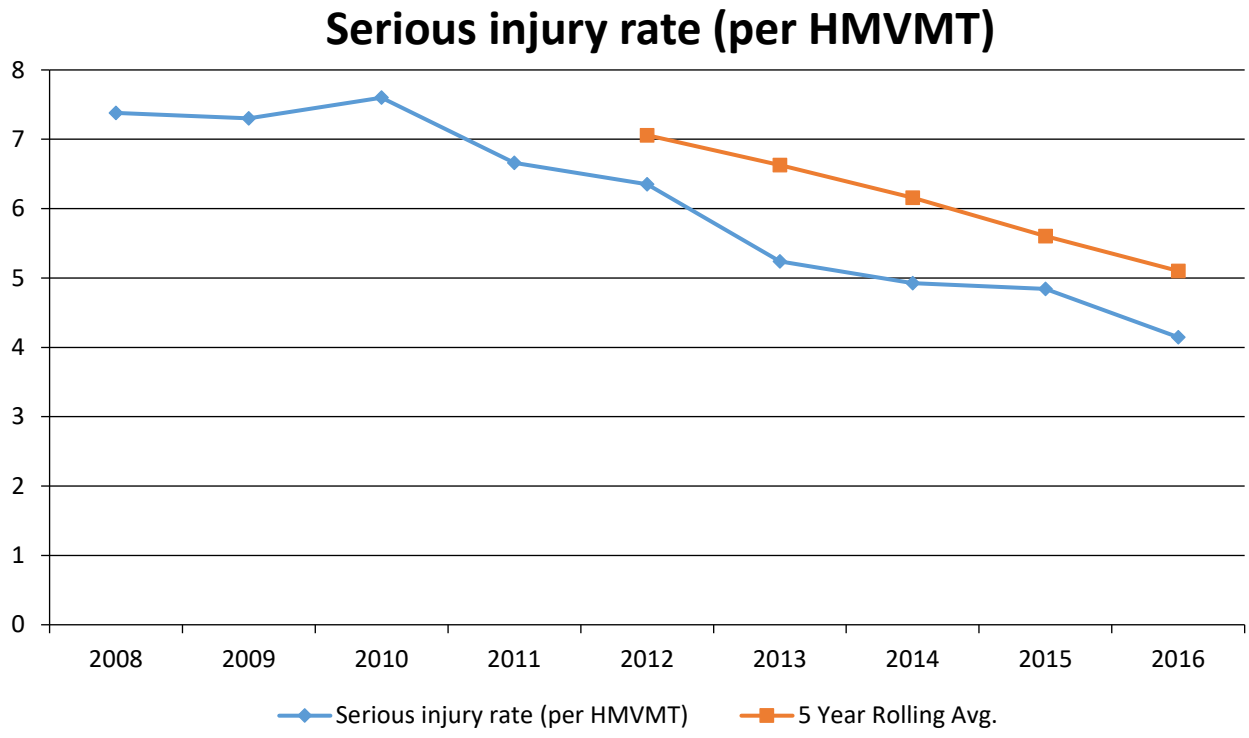
Present data showing the general highway safety trends in the State for the past five years.

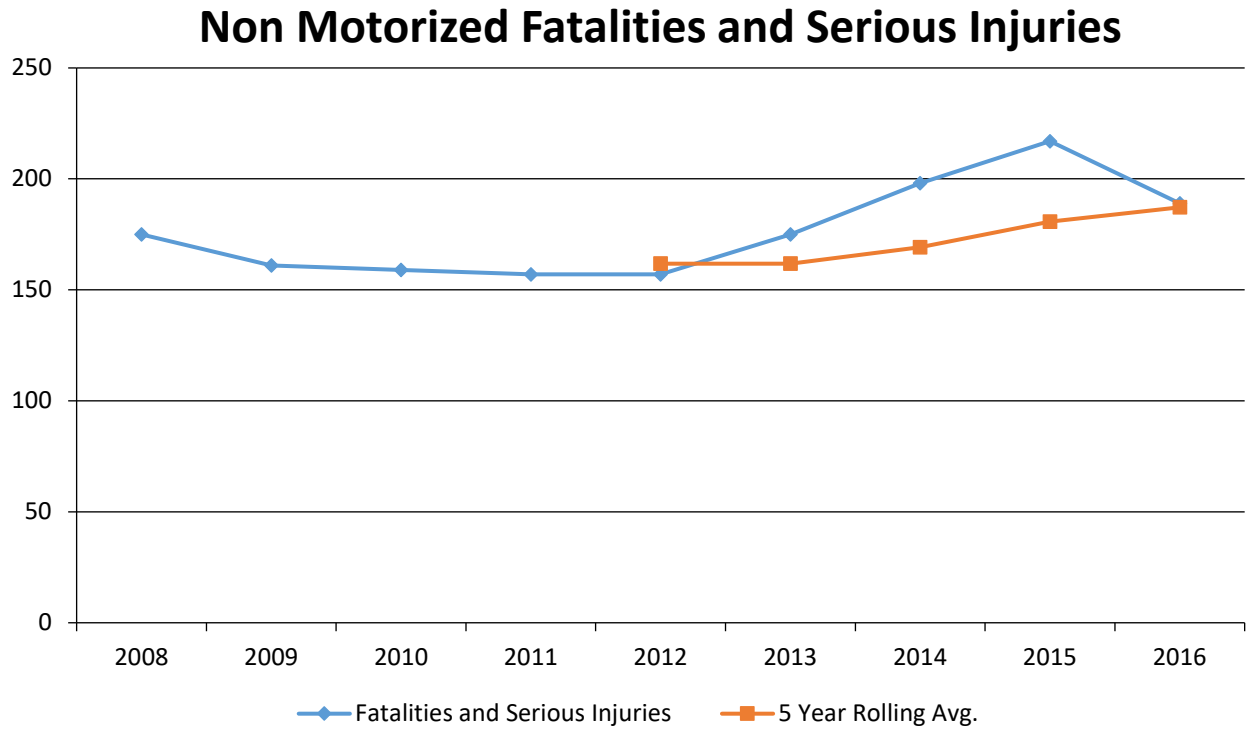
PERFORMANCE MEASURES	2008	2009	2010	2011	2012	2013	2014	2015	2016
Fatalities	366	361	349	350	366	311	386	298	402
Serious Injuries	1,940	1,899	1,922	1,709	1,624	1,314	1,249	1,329	1,153
Fatality rate (per HMVMT)	1.390	1.390	1.380	1.360	1.430	1.240	1.520	1.090	1.446
Serious injury rate (per HMVMT)	7.380	7.300	7.600	6.660	6.353	5.238	4.928	4.844	4.146
Number non-motorized fatalities	46	43	41	44	68	55	80	61	80
Number of non-motorized serious injuries	129	118	118	113	89	120	118	156	109
non-motorized fatalities and serious injuries	175	161	159	157	157	175	198	217	191

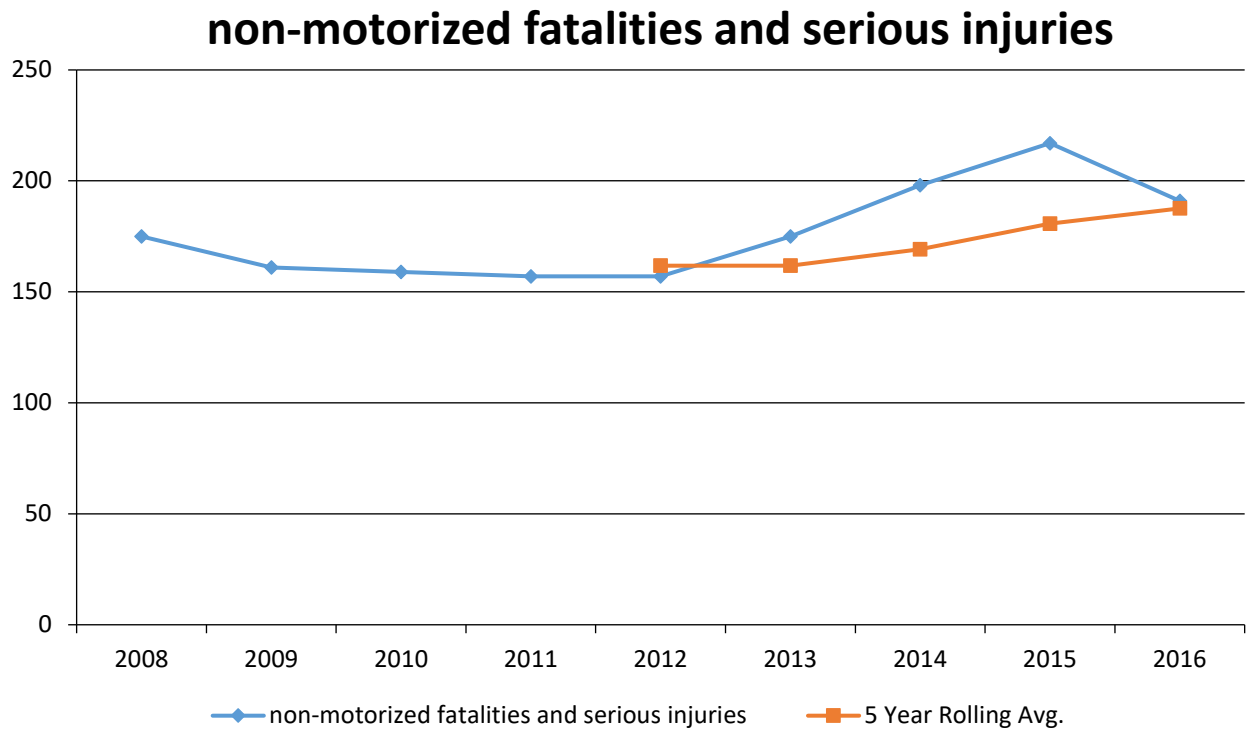

Annual Fatalities
450
400
350
300
250
200
150
100
50
0
2008
2009
2010
2011
2012
2013
2014
2015
2016
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
2500
2000
1500
1000
500
0
2008
2009
2010
2011
2012
2013
2014
2015
2016
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2008
2009
2010
2011
2012
2013
2014
2015
2016
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
8
7
6
5
4
3
2
1
0
2008
2009
2010
2011
2012
2013
2014
2015
2016
Serious injury rate (per HMVMT)
5 Year Rolling Avg.





Enter additional comments here to clarify your response for this question or add supporting information.

Fatalities Data Source: FARS Query (2008-2016) using Person Type: (5) Pedestrian, (6) Bicyclist, (7) Other cyclist, and (8) Persons on Personal Conveyances.

A-Injury Data Source: (NMDOT) Federal Fiscal Year 2019 Performance Measure 1 Targets Report dated July 16, 2018.

Describe fatality data source.

FARS

Enter additional comments here to clarify your response for this question or add supporting information.

None

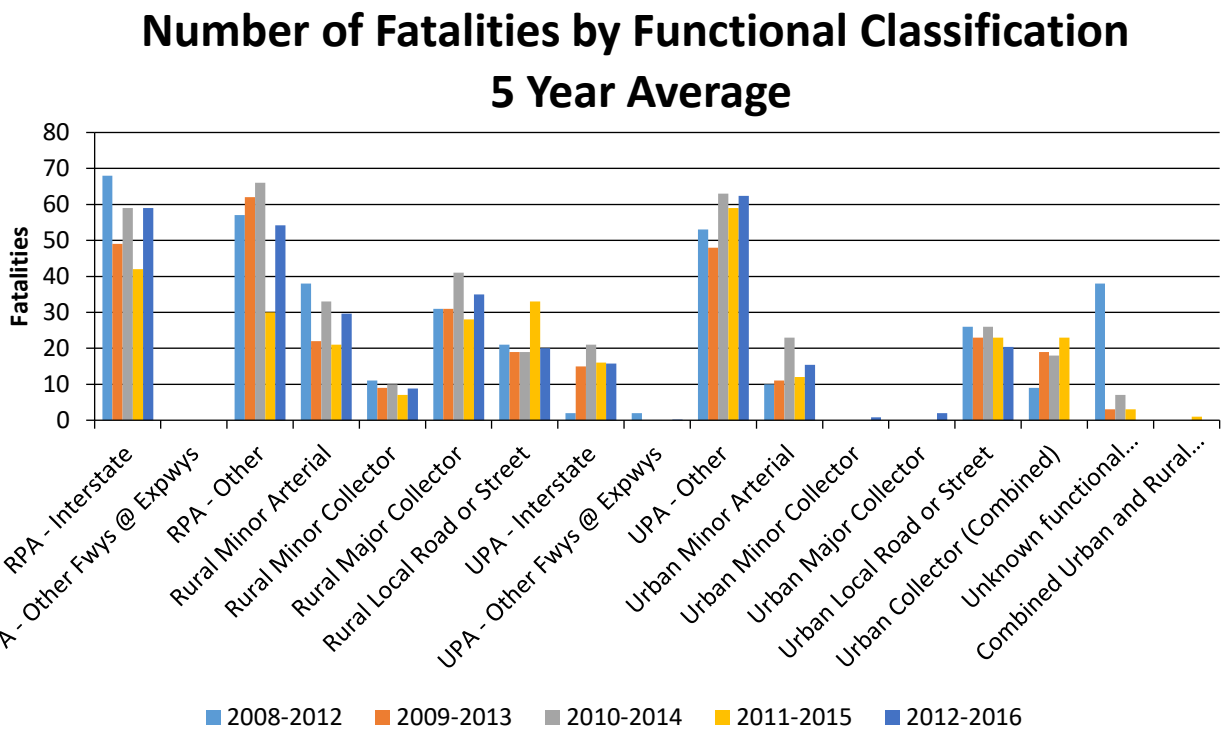
To the maximum extent possible, present this data by functional classification and ownership.

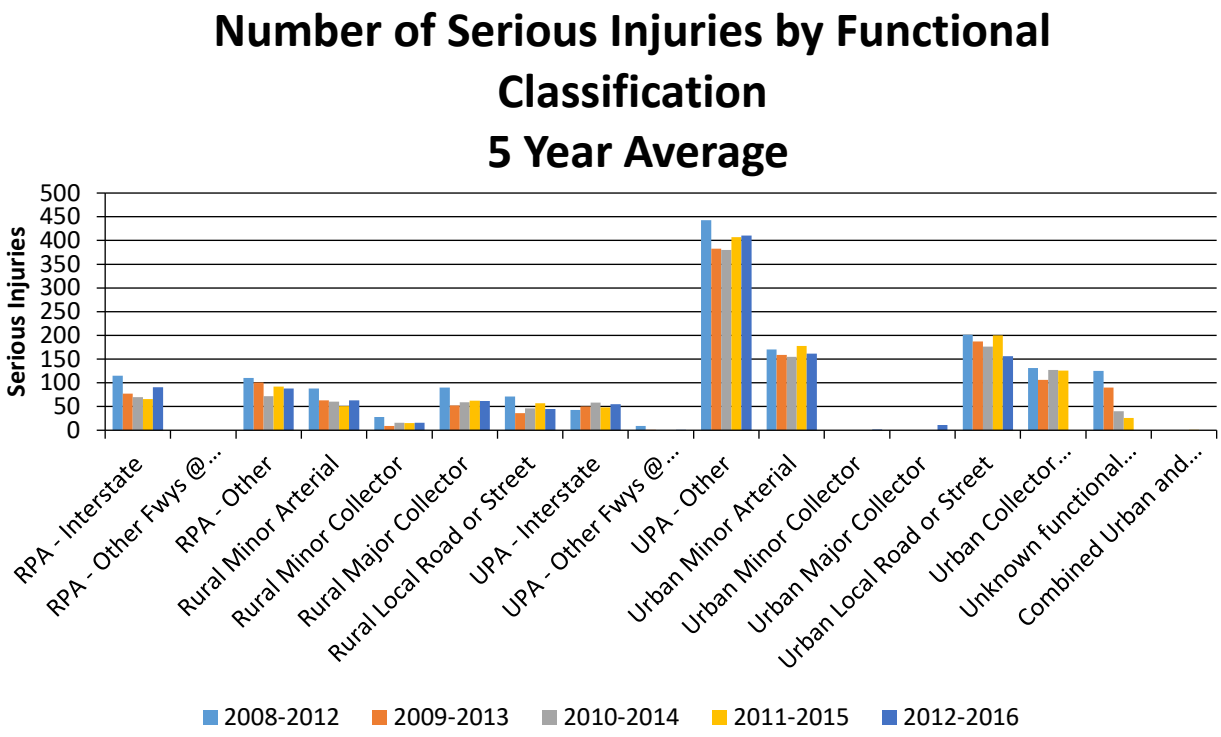
Year 2016

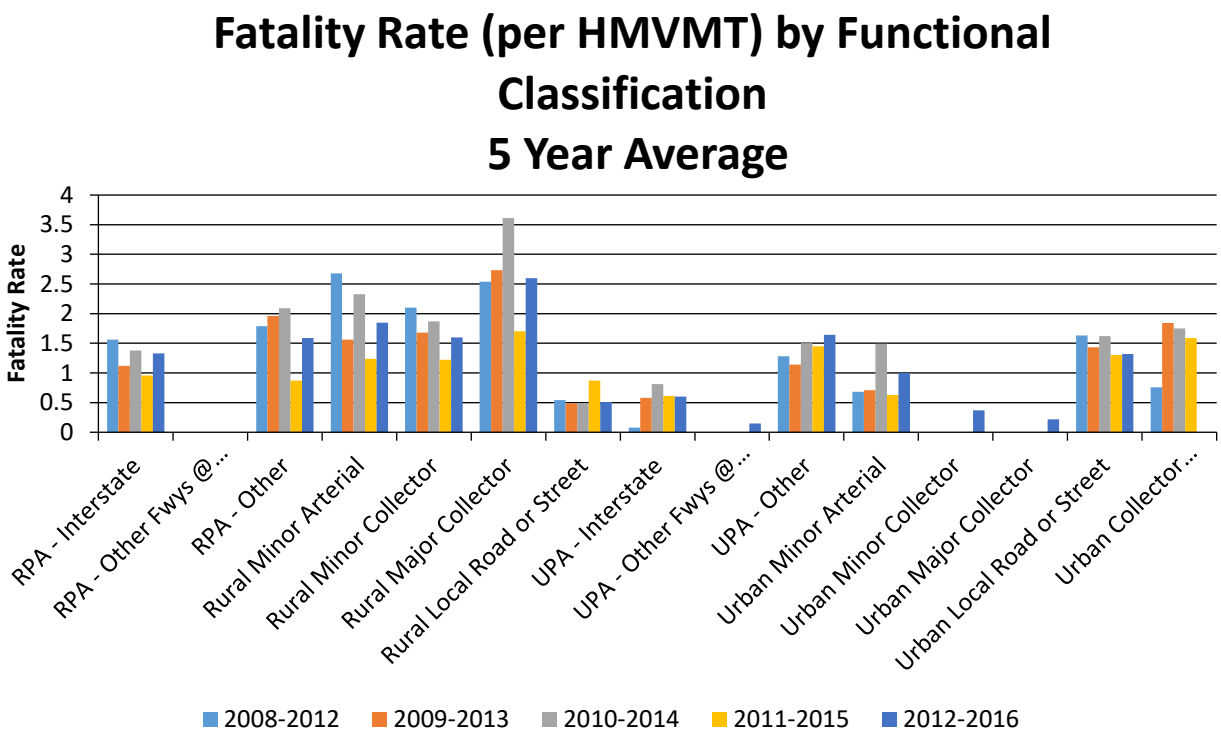
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	59	90.4	1.33	20.3
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - Other	54.2	88.2	1.59	2.61
Rural Minor Arterial	29.6	63.2	1.85	4.03
Rural Minor Collector	8.8	16	1.6	2.92
Rural Major Collector	35	61.8	2.6	4.69
Rural Local Road or Street	20	44.6	0.51	1.15
Urban Principal Arterial (UPA) - Interstate	15.8	55	0.6	2.09
Urban Principal Arterial (UPA) - Other Freeways and Expressways	0.2	1.2	0.15	0.89
Urban Principal Arterial (UPA) - Other	62.4	410.6	1.64	10.6
Urban Minor Arterial	15.4	161.4	1	10.3
Urban Minor Collector	0.8	1.6	0.37	0.74
Urban Major Collector	2	11.4	0.22	1.24
Urban Local Road or Street	20.4	155.8	1.32	9.75

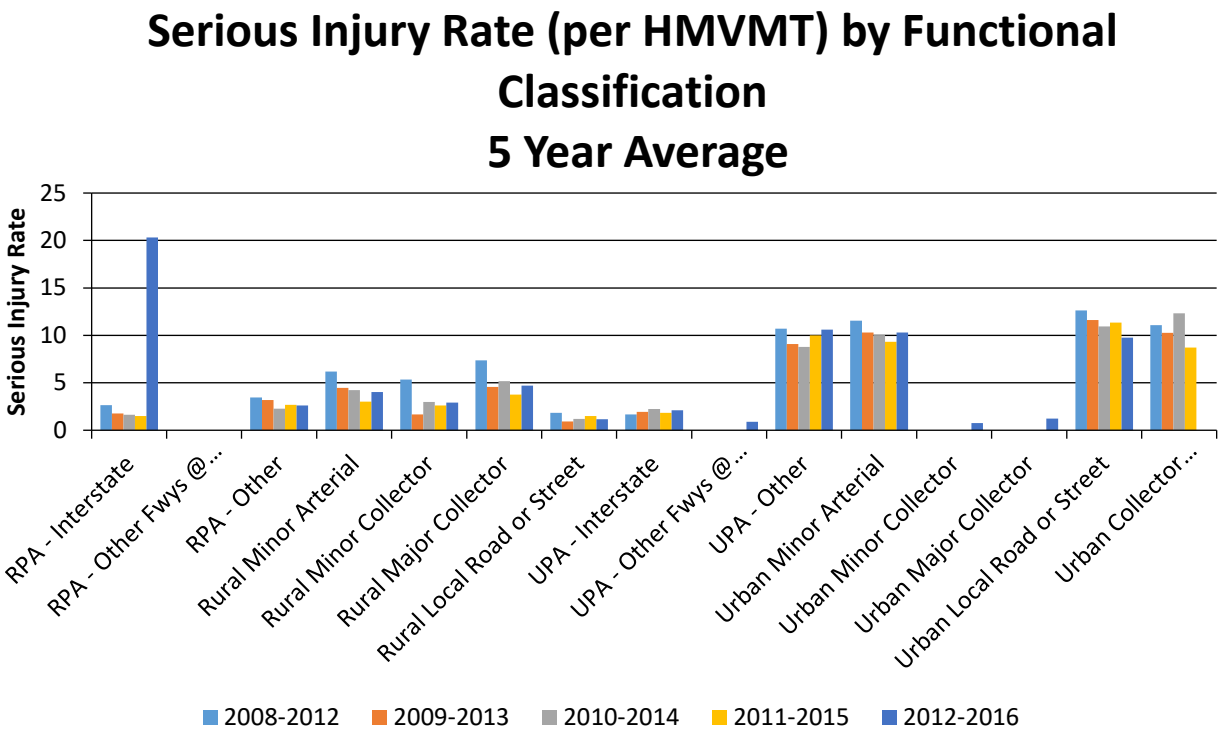
Year 2016

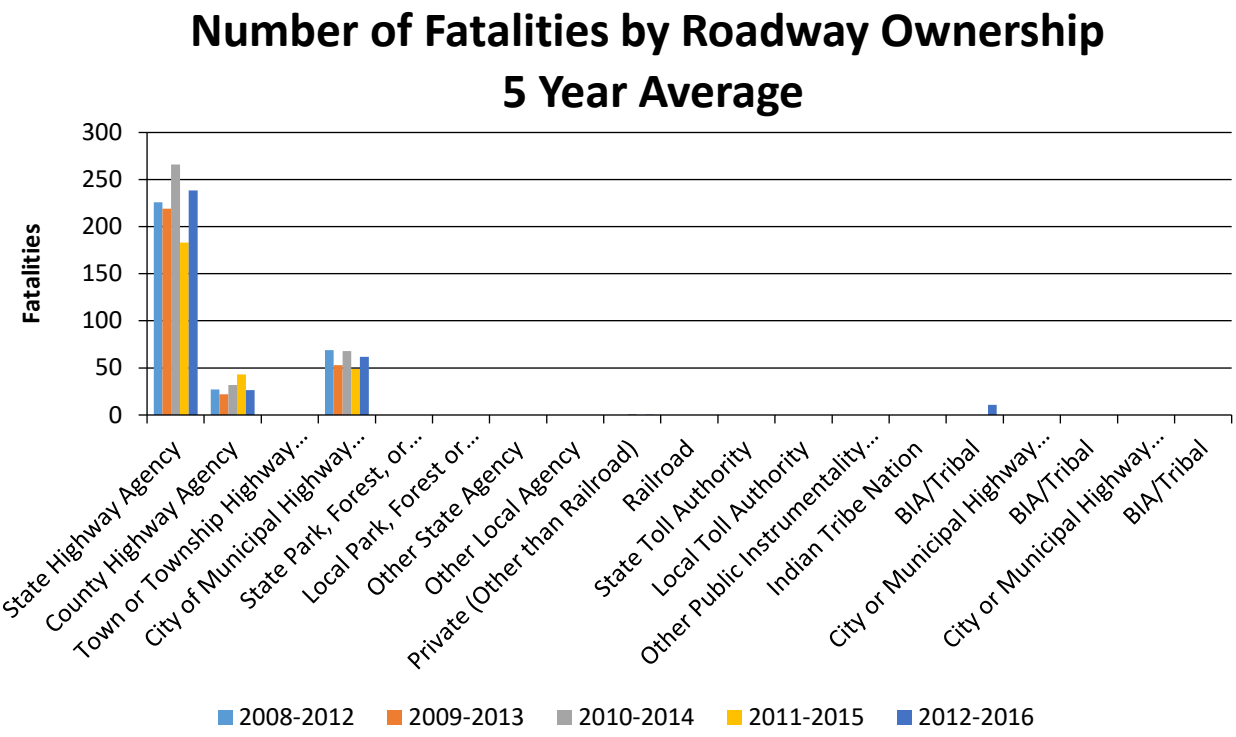
Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	238.4	606.6	1.45	3.7
County Highway Agency	26.4	108.8	0.56	2.33
Town or Township Highway Agency	0	0	0	0
City of Municipal Highway Agency	61.6	536.2	1.16	10.13
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	
Other Local Agency	0	0		0
Private (Other than Railroad)	0.2	0.2	0	0
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	0	0	0	0
BIA/Tribal	10.8	7.4	1.78	1.22
City or Municipal Highway Agency	0	0	0	0
BIA/Tribal	0	0	0	0
City or Municipal Highway Agency	0	0	0	0
BIA/Tribal	0	0	0	0

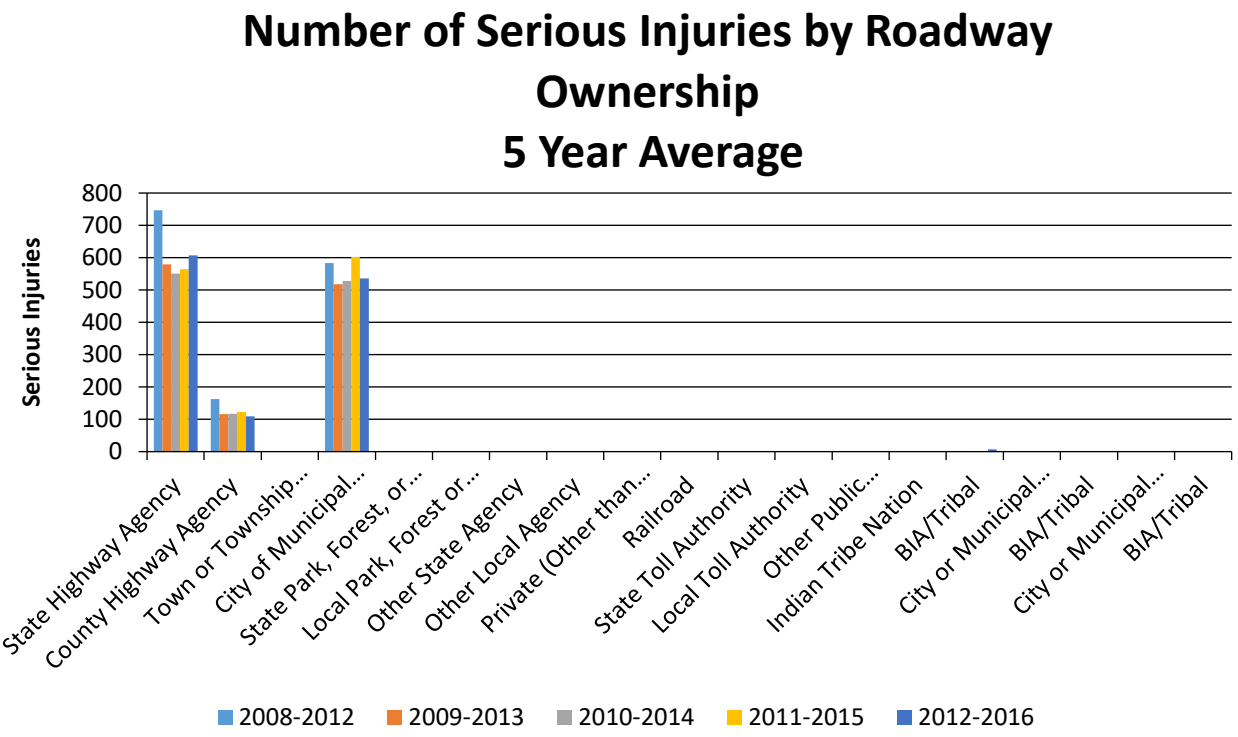

Number of Fatalities by Functional Classification
5 Year Average
Fatalities
80
70
60
50
40
30
20
10
0
RPA - Interstate
RPA - Other Fwys @ Expwys
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @ Expwys
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
Urban Collector (Combined)
Unknown functional...
Combined Urban and Rural...
2008-2012
2009-2013
2010-2014
2011-2015
2012-2016

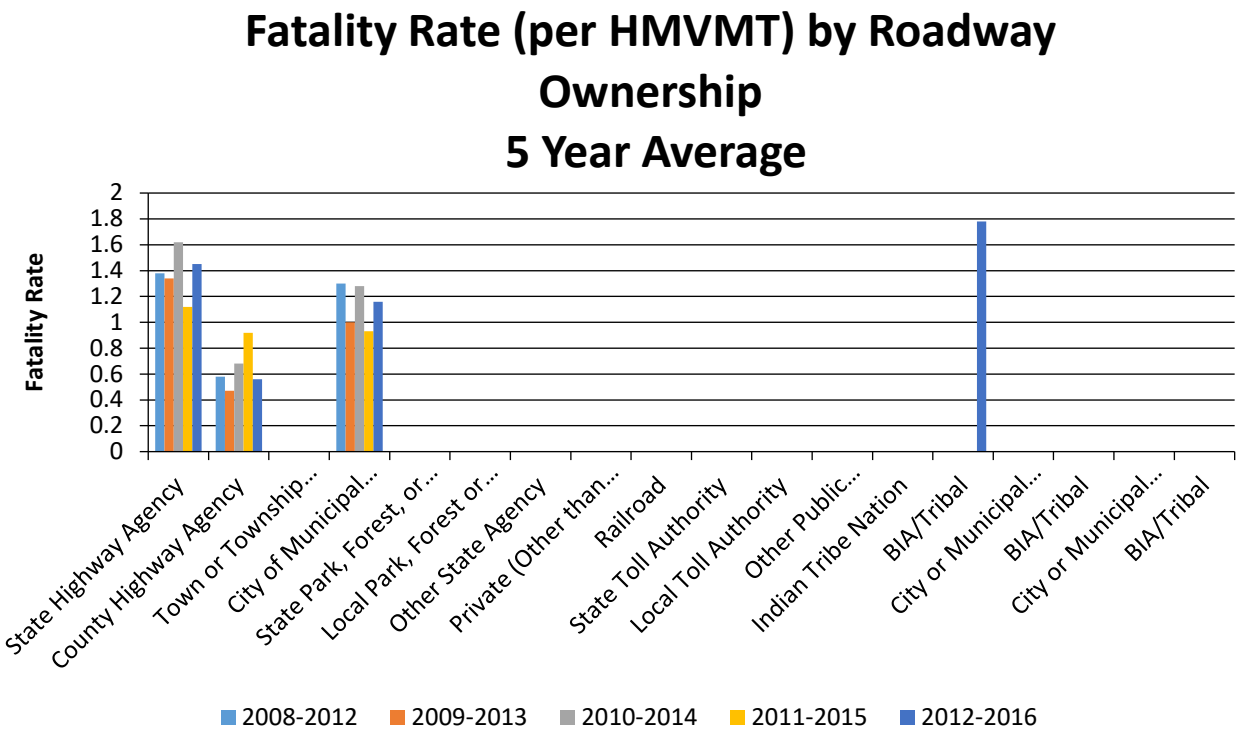

Number of Serious Injuries by Functional Classification
5 Year Average
Serious Injuries
500
450
400
350
300
250
200
150
100
50
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
Urban Collector...
Unknown functional...
Combined Urban and...
2008-2012
2009-2013
2010-2014
2011-2015
2012-2016

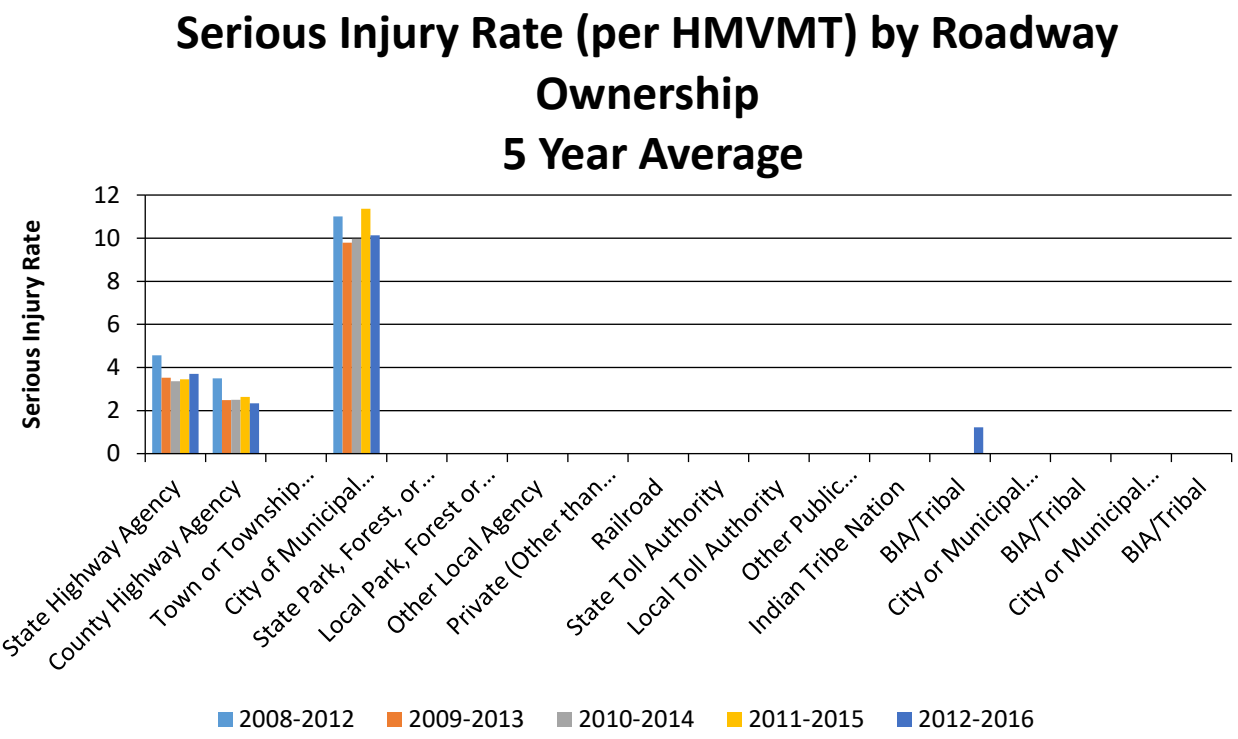

Fatality Rate (per HMVMT) by Functional Classification
5 Year Average
Fatality Rate
4
3.5
3
2.5
2
1.5
1
0.5
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
Urban Collector...
2008-2012
2009-2013
2010-2014
2011-2015
2012-2016


Serious Injury Rate (per HMVMT) by Functional Classification
5 Year Average
Serious Injury Rate
25
20
15
10
5
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
Urban Collector...
2008-2012
2009-2013
2010-2014
2011-2015
2012-2016


Number of Fatalities by Roadway Ownership
5 Year Average
Fatalities
300
250
200
150
100
50
0
State Highway Agency
County Highway Agency
Town or Township Highway...
City of Municipal Highway...
State Park, Forest, or...
Local Park, Forest or...
Other State Agency
Other Local Agency
Private (Other than Railroad)
Railroad
State Toll Authority
Local Toll Authority
Other Public Instrumentality...
Indian Tribe Nation
BIA/Tribal
City or Municipal Highway...
BIA/Tribal
City or Municipal Highway...
BIA/Tribal
2008-2012
2009-2013
2010-2014
2011-2015
2012-2016


Number of Serious Injuries by Roadway Ownership
5 Year Average
Serious Injuries
800
700
600
500
400
300
200
100
0
State Highway Agency
County Highway Agency
Town or Township...
City of Municipal...
State Park, Forest, or...
Local Park, Forest or...
Other State Agency
Other Local Agency
Private (Other than...
Railroad
State Toll Authority
Local Toll Authority
Other Public...
Indian Tribe Nation
BIA/Tribal
City or Municipal...
BIA/Tribal
City or Municipal...
BIA/Tribal
2008-2012
2009-2013
2010-2014
2011-2015
2012-2016


Fatality Rate (per HMVMT) by Roadway Ownership
5 Year Average
Fatality Rate
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
State Highway Agency
County Highway Agency
Town or Township...
City of Municipal...
State Park, Forest, or...
Local Park, Forest or...
Other State Agency
Private (Other than...
Railroad
State Toll Authority
Local Toll Authority
Other Public...
Indian Tribe Nation
BIA/Tribal
City or Municipal...
BIA/Tribal
City or Municipal...
BIA/Tribal
2008-2012
2009-2013
2010-2014
2011-2015
2012-2016



Enter additional comments here to clarify your response for this question or add supporting information.

In the 2017 FHWA Annual Report, the 2016 preliminary crash data was used. Data from 2016 was used again in the 2018 Annual Report, but this time the data was finalized - not preliminary. For this reason, the numbers will reflect 2016 results in both the 2017 and 2018 Annual Reports, but the values will be different due to the difference of using preliminary data and finalized data (the differences were noticeable between the two 2016 dataset).

Differing entries for Functional Class appear in FARS, HPMS, and NMDOT crash data. This leads to inconsistencies in comparison and analysis of data. NMDOT took the position to try and have consistency with HPMS and NMDOT data as this provided an ability to calculate both crash data and rates.

Any ownership or functional class category that was not used was given inputs of zero in all four performance measure columns.

Notes for the 'Ownership' inputs:
1. Any variation of Federal Agency was not reported due to the following: NPS does not report any crashes to NMDOT, US Forest Service does not have a data base for crashes, nor does Game and Fish.

2. The fatality rate and serious injury rate for "Private (other than railroad)" are zero due to the VMT being unknown for that particular ownership category.

Are there any other aspects of the general highway safety trends on which the State would like to elaborate?

2018 New Mexico Highway Safety Improvement Program
Yes

Provide additional discussion related to general highway safety trends.

See inputs in the comments section for each performance target.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2019 Targets *

Number of Fatalities	375.0

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

Five-year average fatalities fell by 7 percent between 2011 and 2015, but then rose in 2016 to their highest level in ten years. 2017 preliminary data and 2018 and 2019 projected data indicate fatalities remaining high. Although the 5- year trend line indicates a 5 percent increase in overall fatalities from 2016 to 2019, given the projected increases in pedestrian, speeding and alcohol-impaired fatalities, the State has determined a 6.4 percent increase in overall fatalities to be an achievable target in 2019.

Number of Serious Injuries	1100.0

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

Five-year average serious injuries are projected to fall by 14.7 percent between 2016 and 2018, and the State anticipates a continued reduction in serious injuries in 2019. The State has determined a 17.5 percent reduction in these injuries from 2016 to 2019 is achievable.

Fatality Rate	1.318

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

Although five-year average fatalities are expected to increase in 2019 from 2016, with VMT expected to continue rising, the State determines that the projected 2019 five-year fatality rate is an achievable target.

Serious Injury Rate	3.825

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

Five-year average serious injury rates are projected to continue falling, and the State has determined the 2019 five-year average projection to be an achievable target.

Total Number of Non-Motorized Fatalities and Serious Injuries	220.6

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

Five-year average non-motorized fatalities and serious injuries are projected to rise over the next four years, and the State has determined the 2019 five-year average projection to be an achievable target.

Enter additional comments here to clarify your response for this question or add supporting information.

These targets are taken from the "NM DOT Performance Measure (PM) Target Report - PM 1; Federal Fiscal Year 2019" PDF document.

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

As part of the process of establishing safety performance targets, in 2018 there was a day-long workshop presenting relevant considerations such as past performance, current trends -nationally/statewide/locally, and anticipated future trends in safety performance related to the five measures. These were discussed in detail and stakeholders discussed their experiences related to the process to determine the safety targets for 2019.

Does the State want to report additional optional targets?

No

Enter additional comments here to clarify your response for this question or add supporting information.

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.

Applicability of Special Rules

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

Yes

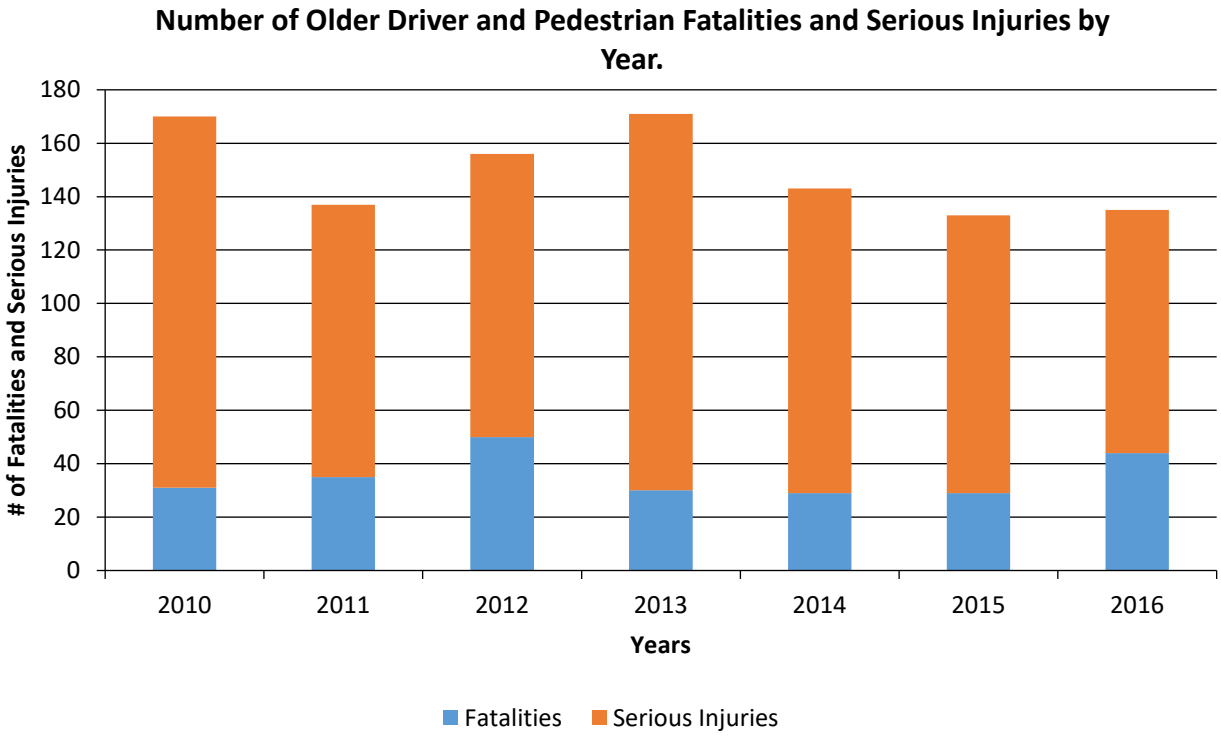
Enter additional comments here to clarify your response for this question or add supporting information.

New Mexico is subject to complying with the High Risk Rural Road (HRRR) Special Rule beginning with the 2018 reporting cycle. Consistent with the federal criteria for development of a project that addresses the HRRR

special rule, NMDOT programmed and obligated a project which incorporates multiple safety countermeasures on NM 117 (CN 6101080) which is classified as a Rural Major Collector for $1,887,424. This project will address a number of safety risks particularly related to road departure crashes which is consistent with the Road Departure HSIP program defined earlier. Following FHWA recommended approaches, countermeasures were incorporated, such as rumble strips, application of a high friction surface treatment at key locations, and improvements to culvert end treatments, and other fixed object hazard mitigations. This project is included in the list of HSIP projects for FFY 2017. Effectiveness evaluation is not possible in the initial year due to data limitations and crash data not being available.

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	2010	2011	2012	2013	2014	2015	2016
Number of Older Driver and Pedestrian Fatalities	31	35	50	30	29	29	44
Number of Older Driver and Pedestrian Serious Injuries	139	102	106	141	114	104	91



Enter additional comments here to clarify your response for this question or add supporting information.

1. Older driver fatalities were obtained from FARS; K Injury = Severity, Age 65+, Person Type: Driver of motorized transport
2. Older pedestrian fatalities were obtained from FARS: K Injury Severity, Age 65+, Person Type: Pedestrian

3. Older driver/older pedestrian serious (A) injuries were obtained from the NM State Crash Data - Vehicle level which has the person information of all units involved in the crash. Vehicle Data is filtered by vehicle type ('TypeV' = 1,2,3,4,5,6,7,8) and Age (65

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

Change in fatalities and serious injuries

Enter additional comments here to clarify your response for this question or add supporting information.

Safety performance effectiveness is measured based on a review of the five PM 1 measures. This review is conducted annually with a coordinated effort including MPOs, Regional Transportation Planning Organizations (RTPOs), Traffic Safety Division, and the SPB.

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

Assessment of safety performance effectiveness for the 2019 HSIP Annual Report was based on a comprehensive review of crash data, and trends using the state's crash data base. Overall, based on current trends, fatalities are on an upward trend and NMDOT has set an objective to limit the increase from 2016 through 2019 to 6.4 percent. The number of serious injuries, the fatality rate, and serious injury rate are anticipated to decline from 2016 through 2019. The number of non-motorized fatalities and serious injuries are on an upward trend and NMDOT has set an objective to limit the increase to 220.6.

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

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

Enter additional comments here to clarify your response for this question or add supporting information.

For FFY 2017 the obligation of HSIP funds continues to be successfully achieved compared to past years. There has been an increased focus on development and obligation of projects related to the mitigation of road departure crashes which is consistent with SHSP objectives and that road departure fatalities were ranked the highest of all identified Emphasis Areas. In 2018 NMDOT initiated efforts to develop an HSIP Manual and to develop a data driven process for network screening and identification of high risk sites, both of which are based on HSM guidance.

Are there any significant programmatic changes that have occurred since the last reporting period?

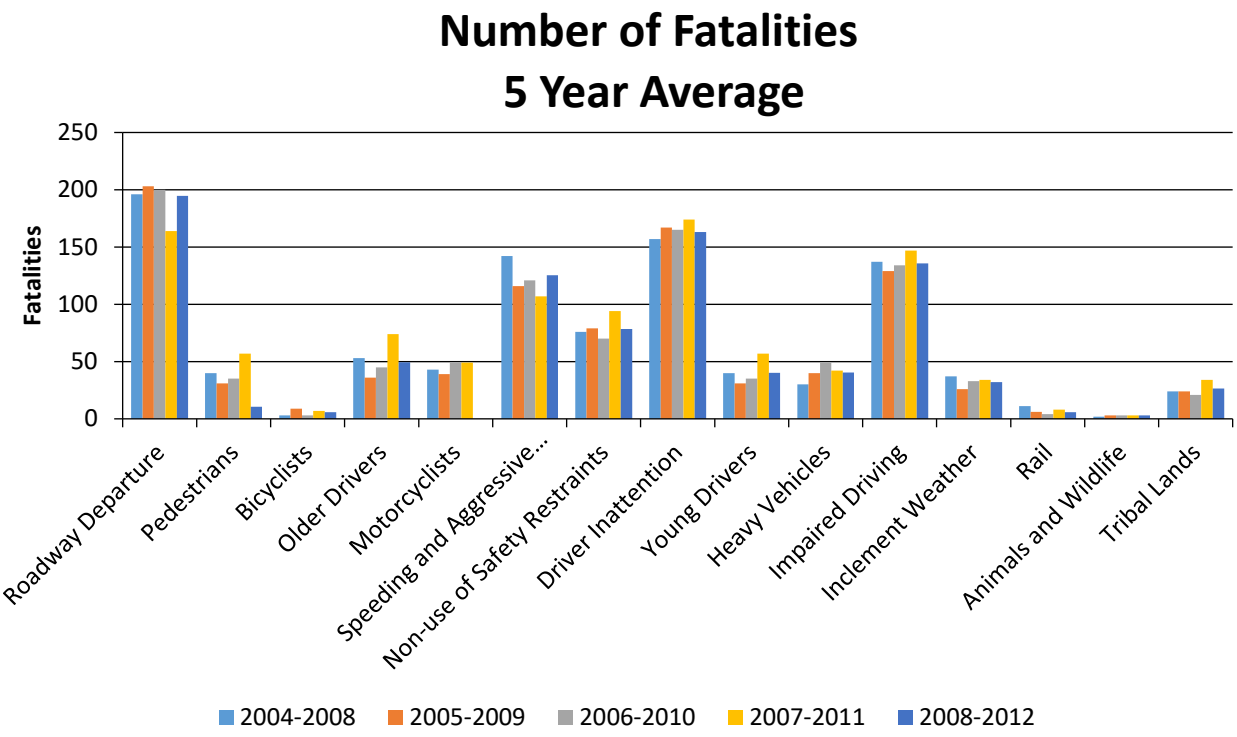
No

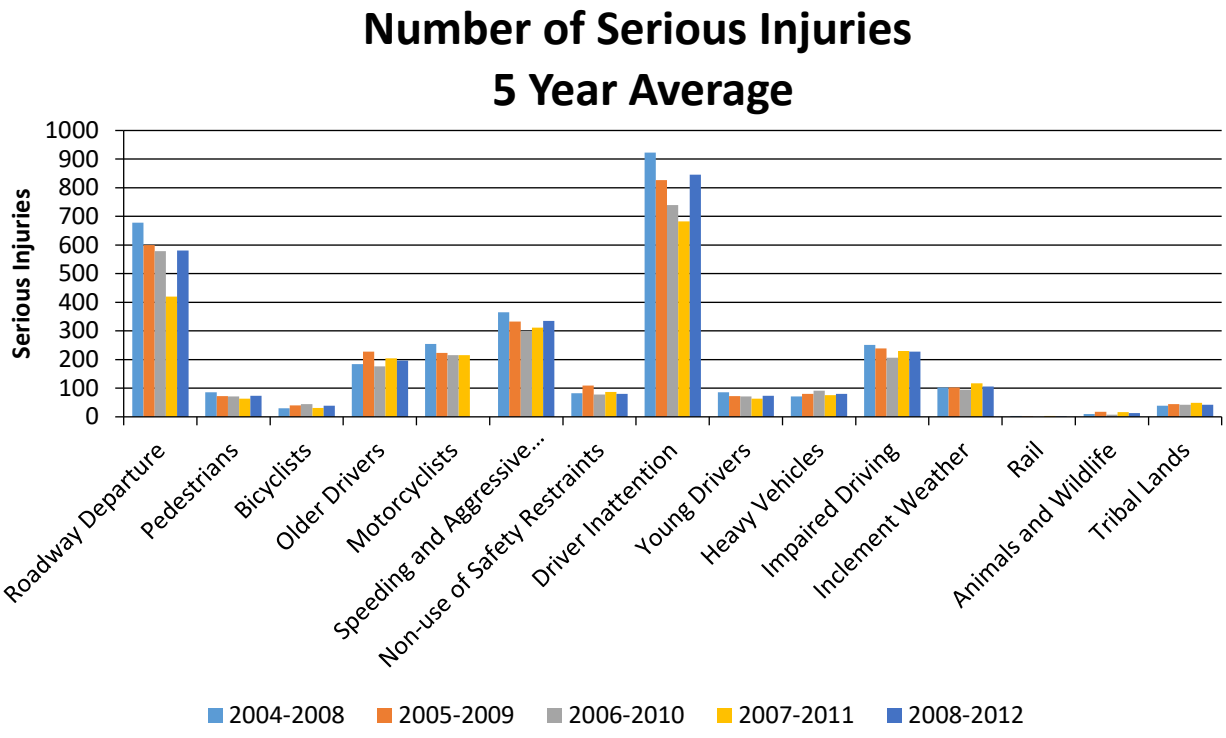
Effectiveness of Groupings or Similar Types of Improvements

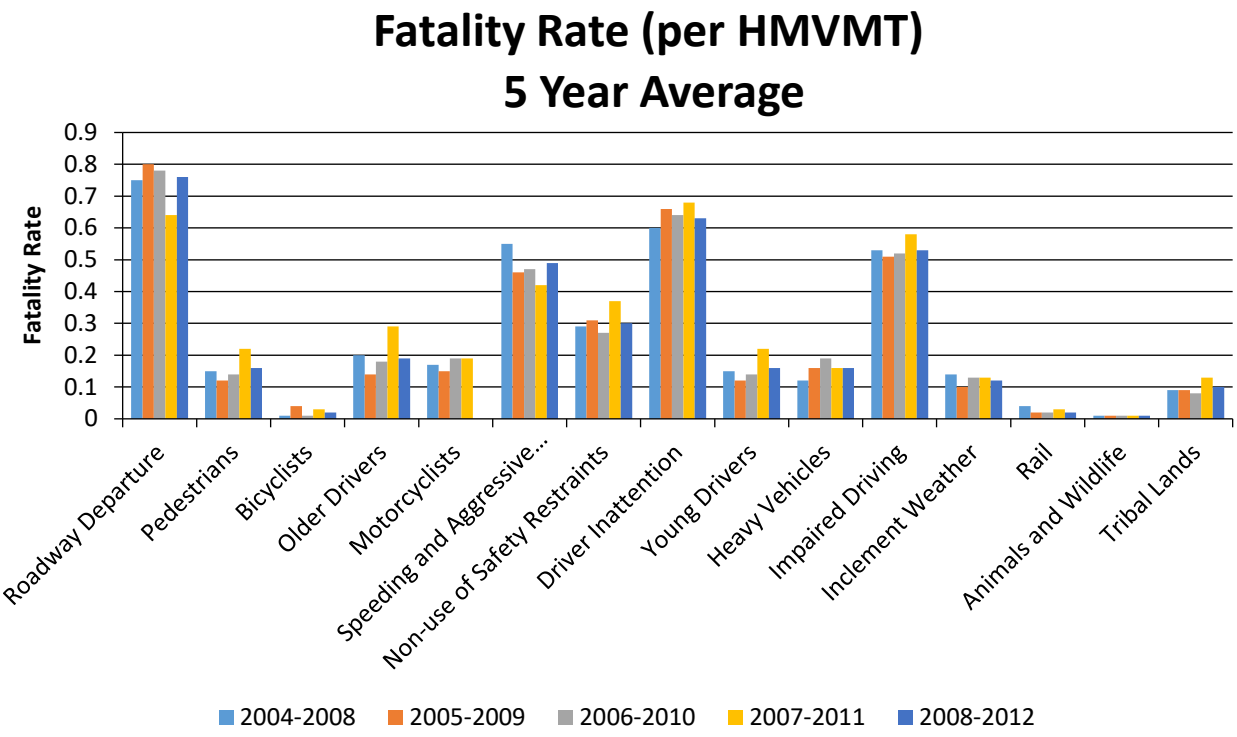
Present and describe trends in SHSP emphasis area performance measures.

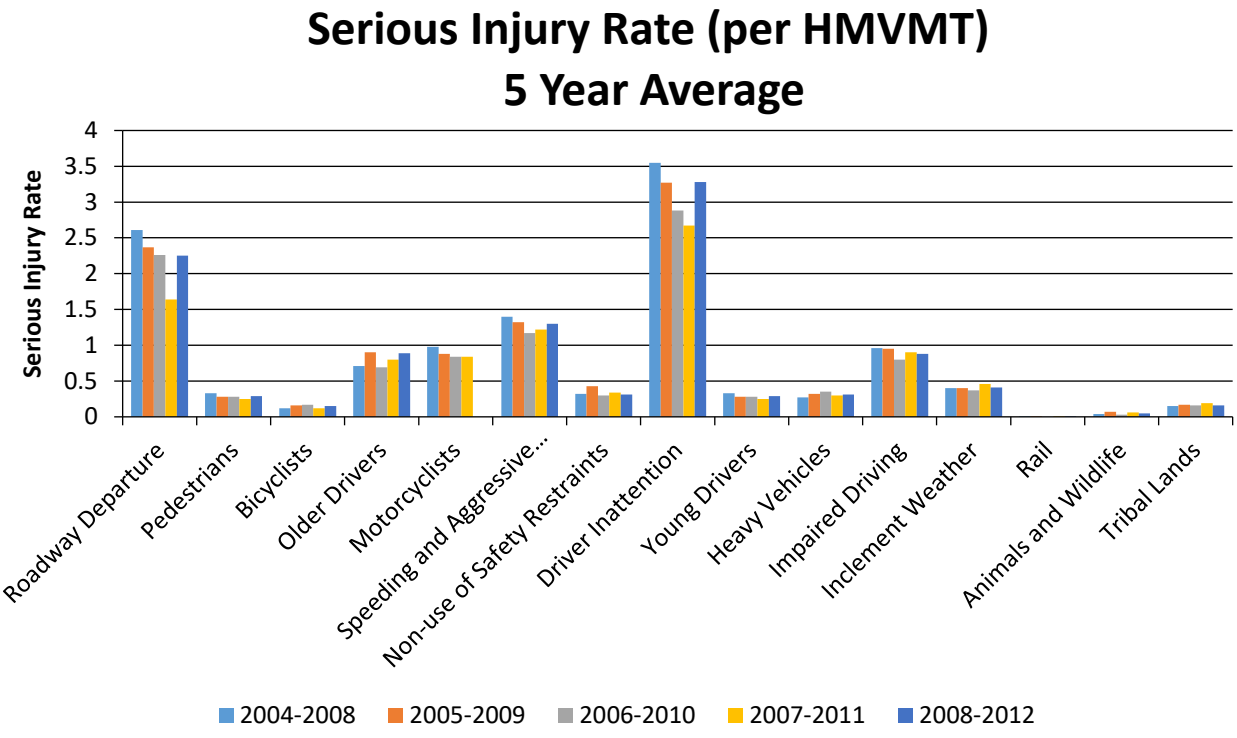
Year 2012

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		194.8	581.2	0.76	2.25
Pedestrians		10.5	73.8	0.16	0.29
Bicyclists		5.8	38.6	0.02	0.15
Older Drivers		49.4	196.8	0.19	0.89
Motorcyclists					
Speeding and Aggressive Driving		125.4	335.2	0.49	1.3
Non-use of Safety Restraints		78.4	80.4	0.3	0.31
Driver Inattention		163	845.6	0.63	3.28
Young Drivers		40.2	73.8	0.16	0.29
Heavy Vehicles		40.4	80.6	0.16	0.31
Impaired Driving		135.6	227.8	0.53	0.88
Inclement Weather		32	105.6	0.12	0.41
Rail		5.8	1.6	0.02	0.01
Animals and Wildlife		3	13	0.01	0.05
Tribal Lands		26.6	42	0.1	0.16


Number of Fatalities
5 Year Average
Fatalities
250
200
150
100
50
0
Roadway Departure
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Speeding and Aggressive...
Non-use of Safety Restraints
Driver Inattention
Young Drivers
Heavy Vehicles
Impaired Driving
Inclement Weather
Rail
Animals and Wildlife
Tribal Lands
2004-2008
2005-2009
2006-2010
2007-2011
2008-2012


Number of Serious Injuries
5 Year Average
Serious Injuries
1000
900
800
700
600
500
400
300
200
100
0
Roadway Departure
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Speeding and Aggressive...
Non-use of Safety Restraints
Driver Inattention
Young Drivers
Heavy Vehicles
Impaired Driving
Inclement Weather
Rail
Animals and Wildlife
Tribal Lands
2004-2008
2005-2009
2006-2010
2007-2011
2008-2012





Enter additional comments here to clarify your response for this question or add supporting information.

Source: New Mexico Strategic Highway Safety Plan (March 2017)

Data are shown as five-year rolling averages.

Data are reported for Years 2008-2012.

Data shown are fatal and serious injury crashes (class A).

The Driver Inattention emphasis area includes distracted driving and sleepy/fatigued driving crashes.

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

No

Enter additional comments here to clarify your response for this question or add supporting information.

For the reporting period, NMDOT focused on improvement of essential data that can be used to more effectively identify sites of concern such as better roadway attribute data, travel data, and crash data refinements. The improvement of these key data attributes will improve the ability to identify sites of concern and projects, develop improved safety programs, and incorporate effective systemic initiatives. This will lead to the implementation of more effective and proven safety countermeasures/initiatives that can be evaluated and are anticipated to provide positive results when evaluated.

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

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
No projects evaluated														

Enter additional comments here to clarify your response for this question or add supporting information.

Are there any other aspects of the overall HSIP effectiveness on which the State would like to elaborate?

No

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

Enter additional comments here to clarify your response for this question or add supporting information.

None

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

	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
MIRE NAME (MIRE NO.)	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT										
Segment Identifier (12)	1	1					1	0.5	1	0.5
Route Number (8)	1	0.75								
Route/Street Name (9)	0.99	0.1								
Federal Aid/Route Type (21)	1	1								
Rural/Urban Designation (20)	1	1					1	1		
Surface Type (23)	0.95	0.95					0.95	0		
Begin Point Segment Descriptor (10)	1	1					1	0.5	0.99	0.5
End Point Segment Descriptor (11)	1	1					1	0.5	0.99	0.5
Segment Length (13)	1	1								
Direction of Inventory (18)	1	1								
Functional Class (19)	1	1					1	1	1	1
Median Type (54)	0.8	0.5								

MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
Access Control (22)	1	1								
One/Two Way Operations (91)	0.99	0.99								
Number of Through Lanes (31)	0.9	0.9					0.99	0.85		
Average Annual Daily Traffic (79)	1	1					1	1		
AADT Year (80)	1	1								
Type of Governmental Ownership (4)	1	0.8					1	0.2	1	0.2
INTERSECTION										
Unique Junction Identifier (120)			0	0						
Location Identifier for Road 1 Crossing Point (122)			0	0						
Location Identifier for Road 2 Crossing Point (123)			0	0						
Intersection/Junction Geometry (126)			0	0						
Intersection/Junction Traffic Control (131)			0	0						
AADT for Each Intersecting Road (79)			0.8	0.8						
AADT Year (80)			1	1						
Unique Approach Identifier (139)			0	0						
INTERCHANGE/RAMP										
Unique Interchange Identifier (178)					1	1				
Location Identifier for Roadway at Beginning of Ramp Terminal (197)					1	1				
Location Identifier for Roadway at Ending Ramp Terminal (201)					1	1				
Ramp Length (187)					1	1				
Roadway Type at Beginning of Ramp Terminal (195)					1	1				

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 Type at End Ramp Terminal (199)					1	1				
Interchange Type (182)					0	0				
Ramp AADT (191)					1	1				
Year of Ramp AADT (192)					1	1				
Functional Class (19)					1	1				
Type of Governmental Ownership (4)					1	1				
Totals (Average Percent Complete):	**0.98**	**0.89**	**0.23**	**0.23**	**0.91**	**0.91**	**0.99**	**0.62**	**1.00**	**0.54**

*Based on Functional Classification

Enter additional comments here to clarify your response for this question or add supporting information.

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.

FY18 Performance Measure: Integration
ALL Roads Network of Linear Referenced Data (ARNOLD) Phase 2 project includes the development of the NMDOT Roadway Inventory System. The system will house the Roadway Data Attributes that will be spatially represented. The Linear Referencing system will be able to locate and display the roadway data attributes on a map. The Phase 2 project will entail full integration and implementation of the ESRI Roads and Highways including the migration of data from NMDOT's existing Transportation Information Management System (TIMS) into the ESRI Roads and Highways Data Model. Expected completion date is August 2018.

Achievement: The ARNOLD Phase I project encompassed the development of the Geo Spatial representation of the NMDOT Linear Reference System to include the National Highway System, State Owned and Maintained Roads, Local Roads, and Federal Roads. NMDOT now has geo spatial representation on 77,204.708 miles of roadway.

Model Inventory of Roadway Elements (MIRE) Fundamental Data Elements
The NMDOT Data Management Bureau is currently developing the NMDOT Roadway Inventory System and the Transportation Data Management System. These two databases will include the tables that will house the MIRE Fundamental data element attributes. The Roadway Inventory System completion date is August 30, 2018 and completion date for the Transportation Data Management System is December 30, 2017. A number of the MIRE elements are currently collected for the annual HPMS report. Once the databases are developed NMDOT will develop a second phase for the MIRE project. The third phase will include a plan for the data collection that is required.

Current Status of MIRE Fundamental Data Element Collection:

- MIRE Data Fundamental Data Elements (FDE) Table 1 currently collected:
  - FDE Roadway Segment: all listed FDEs are collected on Functional System 1-6U.
  - FDE Intersection: MIRE Elements 131, 79, 80, are currently collected on Functional System 1-6U. The following MIRE elements are not collected: 120,122, 123, 126, and 139. The Data Management Bureau is currently developing a plan to build an intersection application. Funding will be required.
  - Interchange/Ramp FDE MIRE elements currently collected on Functional System 1-6U: 178, 197, 201, 187, 191, 192, 19, 4
  - Not collected: 195, 199, 182
- MIRE Data Fundamental Data Elements (FDE) Table 2 currently collected:
  - FDEs in Table 2 are based on Functional System 6R -7. Place holders for these data items exist in the Roadway Inventory System. A plan for data collection will need to be discussed and funding for associated data collection will need to be considered.

- Which office(s) in the state DOT collect, receive, and maintain the MIRE Fundamental data elements. How are they stored and managed?
  - The Data Management Bureau within the Asset Management and Planning Division is currently developing the Roadway Inventory System that will house the collected MIRE FDEs.
- Who can access the MIRE FDE for safety analyses, and what steps are necessary to access the data? Are systems planned or already implemented to facilitate access to the data, e.g. online portals?
  - The ARNOLD Phase 2 project is currently developing the Roadway Inventory System to house the MIRE FDE. The ARNOLD phase 3 project will be the next step in data integration between systems and will provide accessibility to end users.
- Which agency/ office/ individual/ committee(s) have authority and responsible for determining the improvements needed to achieve compliance with the MIRE FDE requirements?
  - The Asset Management and Planning Division Data Management Bureau and the NMDOT Safety Committee.

Coordination with Other Agencies

For MIRE fundamental data elements that are NOT currently being collected:

- Who owns the roads where the elements are not being collected (e.g., State, local government agencies, Tribal Governments, Federal land Management Agencies, etc.)?
  - The NMDOT ARNOLD Phase 1 network developed the Linear Referencing System to include all roads. A plan to reconcile the ownership of the roadways will need to be established by the Roadway Inventory Program. This will verify the ownership of the roadways that are not owned or maintained by NMDOT.
- Do the agencies that own those roads collect any of the MIRE fundamental data elements?
  - The Metropolitan Planning Organizations collect Traffic Data Elements associated with the MIRE FDE.
- What Mechanisms are needed to share data among those agencies that collect, store, and maintain and use the MIRE FDE.
  - A primary key that will link data between systems and data collection standards.

Prioritization criteria for collecting MIRE Fundamental Data Elements on All Public Roads

For additional data that need to be collected to meet the MIRE Fundamental data element requirement:

- What data elements will be collected in the short (1-3 years), medium (4-6 years), and long (7-9 year) terms?
  - If the FDE has a one to one HPMS relationship it is collected on the 1-3 year cycle.
  - A plan will need to be established for the FDEs that are not collected with annual HPMS data collection.
- What collection technologies and/or methodologies are anticipated to be used?
  - NMDOT currently utilizes a LIDAR data collection methodology. NMDOT also has a photo log of all Federal Aid System roads.
- Who is responsible for collecting the data?
  - The Asset Management and Planning Division.
- What will be an update cycle for the data collection of the data?
  - Once the new Roadway Inventory System is established and ready to house data, a plan for data collection will be developed.

Costs and Resources for Data Collection

- What are the estimated cost, staffing and other resource requirements to collect and maintain the MIRE Fundamental Data Elements?
  - NMDOT will have to establish a plan associated with the cost, staffing and other resources to collect and maintain the MIRE FDE.
- Who will incur those costs?
  - NMDOT will have to establish a plan and seek funding in order to collect and maintain the data.

MIRE Data Collection Guidebook U.S. DOT FHWA Report No. FHWA-SA-13-009

NHSTA 2016 Traffic Records Assessment Roadway Recommendations:

- Improve the data dictionary for the Roadway data systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
  - NMDOT is currently developing the Roadway Inventory System to meet best practices and will include the data dictionary schema. Completion date is August 30, 2018.
- Improve the data quality control program for the Roadway Data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

The NMDOT Data Management Bureau is currently developing a new roadway inventory system that will apply validation rules and conflict avoidance. The system will include an HPMS tool box that will ensure data compliance per FHWA standards regarding consistency and cross validations. The data reviewer which is a COT QA/QC tool will be used to identify geometry and database errors. The new system's straight-line diagram tool will identify gaps and overlap and help with consistency of roadway inventory items. ESRI Roads and Highways also has built in QA/QC checks for validating the network. Completion date is August 30, 2018.

Provide the suspected serious injury identifier, definition and attributes used by the State for both the crash report form and the crash database using the table below. Please also indicate whether or not these elements are compliant with the MMUCC 4th edition criteria for data element P5. Injury Status, suspected serious injury.

CRITERIA	SUSPECTED SERIOUS INJURY IDENTIFIER(NAME)	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY DEFINITION	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY ATTRIBUTES(DESCRIPTORS)	MMUCC 4TH EDITION COMPLIANT *
Crash Report Form	"Code A" or "Class A injury"	Yes	N/A	Yes	N/A	Yes
Crash Report Form Instruction Manual	"Code A" or "Class A injury"	Yes	Any injury other than fatal that results in one or more of the following: [See Attributes]	Yes	*Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood *Broken or distorted extremity (arm or leg) *Crush injuries *Suspected skull, chest, or abdominal injury other than bruises or minor lacerations *Significant burns (second and third degree burns over 10% or more of the body) *Unconsciousness when taken from the crash scene *Paralysis	Yes
Crash Database	"Code A" or "Class A injury"	Yes	N/A	Yes	N/A	Yes
Crash Database Data Dictionary	"Code A" or "Class A injury"	Yes	Any injury other than fatal that results in one or more of the following:[See Attributes]	Yes	Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood Broken or distorted extremity (arm or leg) Crush injuries Suspected skull, chest, or abdominal injury other than bruises or minor lacerations Significant burns (second and third degree burns over 10% or more of the body) Unconsciousness when taken from the crash scene Paralysis	Yes

Enter additional comments here to clarify your response for this question or add supporting information.

In summary, the NMDOT updated the “Crash-level Data Dictionary and User’s Guide” and uniform crash report in July 2017 are considered compliant with the MMUCC 4th edition.

Did the State conduct an HSIP program assessment during the reporting period?
No

When does the State plan to complete it’s next HSIP program assessment.

2019

Enter additional comments here to clarify your response for this question or add supporting information.

The State does not currently have any plans to complete its next HSIP program assessment. At this time, the State is focused on using good techniques to identify projects and corresponding countermeasures that are appropriate which results in reduction of fatalities and serious injuries.

Optional Attachments

Program Structure:

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.