

NEW HAMPSHIRE

HIGHWAY SAFETY IMPROVEMENT PROGRAM 2018 ANNUAL REPORT

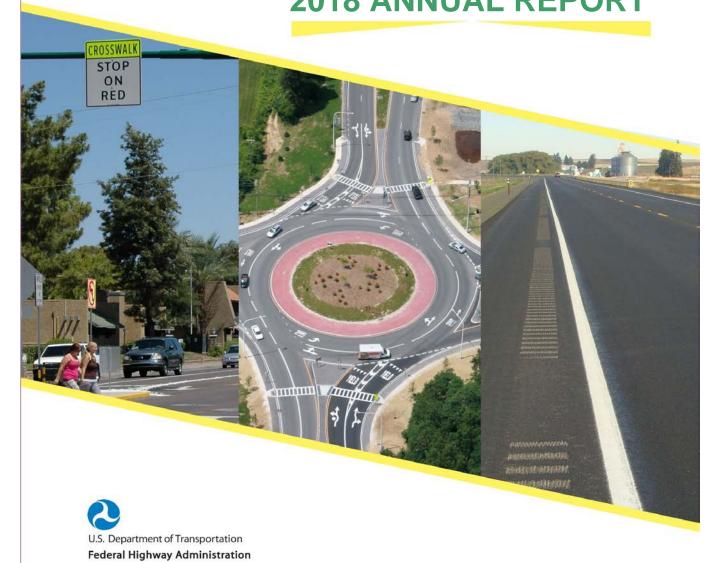


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Disclaimer

Protection of Data from Discovery Admission into Evidence

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

23 U.S.C. 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 overall purpose of this program is to achieve a significant reduction in fatalities and serious injuries on all public roads through the implementation of highway safety improvement projects. The infrastructure-related projects are selected and justified by proven data-driven approaches. All highway safety improvement projects should be chosen and implemented with the goal of reducing fatalities and serious injuries on public roads and the achievement of state safety targets. Some projects will directly impact these performance measures through the implementation of engineering countermeasures, while others may advance the data systems and analysis capabilities of the state to more accurately identify locations with the highest potential for safety improvements, evaluate the performance of highway safety improvement projects, or identify high risk roadway characteristics and driver behaviors.

In 2006, FHWA established a new approach to advancing safety by focusing on performance. In order to effectively meet performance targets, States must apply limited resources to the areas that are most likely to achieve results. The requirement to develop and regularly update a Strategic Highway Safety Plan (SHSP) ensures that this approach is maintained. NH annually tracks and reports performance measures including the numbers and rates of fatalities and serious injuries. Several other performance measures of specific interest to the State are listed in the NH SHSP.

New Hampshire has embraced the goals and vision of the national Toward Zero Deaths (TZD) initiative. The State named its SHSP New Hampshire Driving Toward Zero in recognition of the national plan, and created a public outreach program with the same name to promote change in New Hampshire's safety culture (nhdtz.com). The initiative recognizes that even one traffic death is unacceptable and sets the aggressive goal of reducing all deaths on the nation's highways, a goal virtually achieved in the aviation industry in the past several decades. Dozens of public and private stakeholders from across the State have come together in a collaborative effort to update and carry out the strategies in the SHSP. The vision of Driving Toward Zero is embodied in NH's goal of reducing the number of fatalities and serious injuries by 50% by 2030, equaling an annual reduction of 3.4%. This is measured as a five-year rolling average with the most recent data. Maine and Vermont share this target, and to that end Maine DOT and VTrans have formed a tristate collaborative partnership with NHDOT to more effectively reach the collective regional goal. NHDOT has also incorporated the reduction of fatalities into our Balanced Scorecard, representing one of the twelve Strategic Objectives of the agency.

The concept of a focused approach has been further reinforced with requirements for data-driven decision making and resource allocation. 23 USC 148(c)(2), as amended by 1401(a)(1) of SAFETEA-LU, Identification and Analysis of Highway Safety Problems and Opportunities, delineates specific requirements for identifying safety problems and evaluating countermeasures. NHDOT has implemented the guidelines of the Highway Safety Manual (HSM), part D, in the selection and evaluation of safety improvements.

Map 21 and the FAST ACT continue building on the concept of a safety data system that has the capability to identify key safety problems, establish their relative severity, and then adopt strategic and performance based goals to maximize safety. Recent improvements to the NH data system include a phased initiative to implement electronic crash reporting through the State's Crash Report Management System (CRMS), the compilation of the Model Inventory of Roadway Elements (MIRE) fundamental data elements (FDE), and the completion of the National Highway Traffic Safety Administration (NHTSA) Traffic Records Assessment. One of the key findings of the Traffic Records Assessment was that performance measures for data quality are needed, including measures of timeliness, accuracy, completeness, uniformity, integration and accessibility in order to guide improvements to the data and data systems. In 2017 the NH Department of Safety, Division of Motor Vehicles, introduced a new comprehensive database, known as VISION, for the management of crash data.

The States are required to define a clear linkage between the behavioral NHTSA-funded Highway Safety Program and the HSIP through the State SHSP. The 2012 version (2nd edition) of the NH SHSP identified nine critical emphasis areas (CEA) to be addressed by safety stakeholders in NH, listed below. In 2014, the Education and Public Outreach committee was created thus forming the tenth CEA. This committee has developed documentation that states the challenge, primary focus, and goals for this new emphasis area.

Distracted Driving

Impaired Driving

Speeding

Vehicle Occupant Protection

Teen Traffic Safety

Older Drivers

Vulnerable Roadway Users

Comprehensive Safety Data Improvement

Crash Locations

Education and Public Outreach

The 4 E's of safety (education, enforcement, engineering, and emergency medical services) should be considered in the selection and development of HSIP projects, however the primary intent of the HSIP is to target engineering improvements to infrastructure. The crash types of special interest have been identified in the crash locations CEA. The 3rd edition of the NH SHSP (2017-2021) has now been published, updating the 10 CEAs.

23 USC 148(a)(4) provides a sample listing of eligible highway safety improvement project types; however, it is important to note that only data-driven projects that target strategies identified in the State SHSP are eligible for funding in NH. Furthermore, given the limited funding available, funds should be prioritized to help ensure that projects with the greatest safety return will be the top priority. For example, addressing crashes involving animals is a possible eligible activity but since it is not addressed in the current version of the SHSP as a CEA or related strategy. Since higher safety needs have been identified, HSIP funds should not be used for that purpose in NH.

23 USC 148(e)(2) makes clear that other federal-aid funds are eligible to support and leverage the safety program. Improvements to safety features, such as guardrail, that are routinely provided as part of a broader Federal-aid project should be funded from the same source funds as the broader project when that safety feature is included in the broader project, not HSIP funds. This allows the HSIP funds to be reserved for standalone safety projects thereby allowing for true targeting of safety needs. This is consistent with the provision of separate funding for safety projects and with FHWA's long-standing position on the use of safety funds.

Crash data in this report reflect 2017 crash data (except where noted) for consistency with the annual Highway Safety Plan prepared by the NH Office of Highway Safety and submitted to NHTSA.

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 NH HSIP is governed by a committee chaired by the NHDOT Assistant Director of Project Development and includes representatives from the NHDOT Bureaus of Highway Design, Traffic, Highway Maintenance, Rail & Transit, and Planning; RPCs, MPOs, municipalities, and the FHWA NH Division. The monthly committee meetings review the selection and progress of HSIP projects and initiatives, and program finances. Regional Planning Commissions are encouraged to incorporate the HSIP tenet of data driven project selection in their Transportation Improvement Plan development.

Where is HSIP staff located within the State DOT?

Design

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

HSIP managed by Safety Section within Bureau of Highway Design.

How are HSIP funds allocated in a State?

SHSP Emphasis Area Data

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

Annual funding is apportioned to improvements of individual locations selected by screening, to systemic improvements, and to road safety audits.

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

Municipally-maintained local roads and intersections are included in the screening with State-maintained sites and are evaluated using the same methodology. Traffic data are not available for the majority of rural collector or rural and urban local roads (functional class 8, 9, and 19), and therefore the volumes are estimated based on similar roads that have measured data. Urban and rural local roads are categorized separately from the other functional classes in network screening to account for the lower reliability of this estimated volume data. The State is working to improve volume data on all public 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
Other-Administration

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

Describe coordination with internal partners.

The State's HSIP is centrally administered. Historically, the Bureau of Highway Design has performed statewide network screening of crashes on all roadway types. However, due to staff attrition and the resulting loss of data analysis expertise, the NHDOT has been limited in its ability to perform this rigorous network screening and has modified its procedures accordingly. As a result the NHDOT now selects candidates for improvement using historical network screening results which are then corroborated with current crash data. While still a data-driven approach to project identification and selection, this method is more 'naive' and less rigorous than desired. The candidate locations are then disseminated to the NHDOT's safety partners via the HSIP Committee for review and comment. For all the candidate locations, the Committee will consider the scope and cost of the anticipated improvements in relation to the overall program funding constraints, and the improvement's expected benefit/cost ratio. Candidates not selected into the HSIP may be recommended for consideration via other funding programs.

To address the NHDOT's present deficit in data analysis expertise the Bureau of Highway Design is undergoing reorganization, which includes the creation of a Safety Section tasked with administering the HSIP including the selection, evaluation, and delivery of infrastructure safety projects, and stewardship of the SHSP. This will enhance the NHDOT's safety capabilities by expanding upon our staff focused on this core federal program. The Safety Section is working with the assistance of the FHWA NH Division to regain and sustain the necessary tools and expertise for a rigorous data-driven safety program.

Identify which external partners are involved with HSIP planning.

Regional Planning Organizations (e.g. MPOs, RPOs, COGs)

2018 New Hampshire Highway Safety Improvement Program Local Government Agency FHWA

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

Describe coordination with external partners.

The HSIP committee meets monthly with internal and external partners. The NHDOT Bureau of Highway Design - Safety Section prepares and disseminates (by email) meeting agendas and notes, program financial data, and relevant project reports. This information is reviewed and discussed at the monthly meetings, with key items voted upon when necessary as dictated by the NHDOT HSIP Policy.

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 NHDOT Bureau of Highway Design is undergoing reorganization, one result of which will be the creation of a Safety Section tasked with administering the HSIP including the selection, evaluation, and delivery of infrastructure safety projects, and stewardship of the SHSP. This will enhance the NHDOT's safety capabilities by expanding upon our staff focused on this core federal program. The new Safety Section will also work closely with FHWA to develop and sustain the data analysis capabilities needed to support our HSIP.

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 FAST Act disqualified the use of HSIP funds for noninfrastructure projects. The NHDOT continues to work with our safety partners via the SHSP to advance non-infrastructure safety initiatives utilizing funding from NHTSA or other public or private entities.

Program Methodology

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

Yes

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

File Name:

New Hampshire HSIP Guidance2013.doc

Select the programs that are administered under the HSIP.

Median Barrier

Intersection

Horizontal Curve

Bicycle Safety

Rural State Highways

Roadway Departure

Low-Cost Spot Improvements

Sign Replacement And Improvement

Local Safety

Pedestrian Safety

Right Angle Crash

Left Turn Crash

Shoulder Improvement

Segments

HRRR

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

Program: Bicycle Safety

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes Traffic Other-EPDO Volume Other-Site Subtype

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

Expected crash frequency with EB adjustment

2018 New Hampshire Highway Safety Improvement Program Equivalent property damage only (EPDO Crash frequency)

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-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Horizontal Curve

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes Traffic Functional classification
Other-Run Off the Road Volume Other-Site Subtype

2018 New Hampshire Highway Safety What project identification methodo	Improvement Program logy was used for this program? [Check all that apply]
Expected crash frequency with EB adju	ustment
Are local roads (non-state owned and	d operated) included or addressed in this program?
Yes	
Are local road projects identified usi	ing the same methodology as state roads?
Yes	
Describe the methodology used to ide	entify local road projects as part of this program.
How are projects under this program	n advanced for implementation?
Other-HSIP Committee evaluation	
relative importance of each process i rankings. If weights are entered, the	e projects for implementation. For the methods selected, indicate the in project prioritization. Enter either the weights or numerical e sum must equal 100. If ranks are entered, indicate ties by giving in the next highest rank (as an example: 1, 2, 2, 4).
Rank of Priority Consideration	
Ranking based on B/C: 50 Available funding: 50	
Program:	HRRR
Date of Program Methodology:	10/1/2013
What is the justification for this prog	gram? [Check all that apply]
Addresses SHSP priority or emphasis a FHWA focused approach to safety	area
What is the funding approach for th	is program? [Check one]
Competes with all projects	

Crashes Exposure Roadway

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

Fatal and serious injury crashes only
Other-Run Off the Road

Traffic
Volume

Other-site subtype

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

Expected crash frequency with EB adjustment

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-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Intersection

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes Traffic Functional classification
Other-Run Off the Road Volume Other-Site Subtype

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

Expected crash frequency with EB adjustment

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-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Left Turn Crash

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

Fatal and serious injury crashes only
Other-Run Off the Road

Traffic Volume

Other-site subtype

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

Expected crash frequency with EB adjustment

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-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Local Safety

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes Traffic Functional classification

Volume

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

Crash frequency Other-RSA local agency

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?

Competitive application process Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Low-Cost Spot Improvements

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Fatal and serious injury crashes only
Other-Run Off the Road

Traffic
Volume

Other-site subtype

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

Expected crash frequency with EB adjustment Other-RSA request from local agencies

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?

Competitive application process Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Median Barrier

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes
Other-Run Off the Road
Traffic
Volume
Functional classification

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

Expected crash frequency with EB adjustment

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?

No

Describe the methodology used to identify local road projects as part of this program. no medians on local roads

How are projects under this program advanced for implementation?

Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Pedestrian Safety

Date of Program Methodology: 10/1/2013

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]

Competes with all projects

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

Crashes Exposure Roadway

Fatal crashes only Fatal and serious injury crashes only

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

Crash frequency Expected crash frequency with EB adjustment Equivalent property damage only (EPDO Crash frequency) Excess expected crash frequency using method of moments

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. no medians on local roads

How are projects under this program advanced for implementation?

Competitive application process Other-HSIP Committee evaluation

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).

Ranking based on B/C: 50

Available funding: 50

Program: Right Angle Crash

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

Fatal and serious injury crashes only
Other-Run Off the Road

Traffic
Volume

Other-site subtype

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

Expected crash frequency with EB adjustment

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. no medians on local roads

How are projects under this program advanced for implementation?

Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Roadway Departure

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes Traffic Other-EPDO Volume Other-Site Subtype

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

Expected crash frequency with EB adjustment Equivalent property damage only (EPDO Crash frequency)

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?

No

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

How are projects under this program advanced for implementation?

Other-HSIP Committee evaluation

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical

rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Rural State Highways

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes Traffic Horizontal curvature
Fatal and serious injury crashes only Volume Roadside features

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

Crash frequency

Expected crash frequency with EB adjustment

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. EPDO

How are projects under this program advanced for implementation?

Competitive application process

2018 New Hampshire Highway Safety Improvement Program selection committee Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Segments **Program:**

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Roadway **Exposure** Fatal and serious injury crashes only Traffic Median width Other-Run off the Road Volume Other-Site subtype

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

Expected crash frequency with EB adjustment

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

Yes

Crashes

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. **EPDO**

How are projects under this program advanced for implementation?

Competitive application process selection committee
Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Shoulder Improvement

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes Exposure Roadway

All crashes Traffic Fatal and serious injury crashes only Volume Roadside features

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

Expected crash frequency with EB adjustment Equivalent property damage only (EPDO Crash frequency)

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. EPDO

How are projects under this program advanced for implementation?

Competitive application process selection committee
Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

Program: Sign Replacement And Improvement

Date of Program Methodology: 10/1/2013

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

Addresses SHSP priority or emphasis area

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
Other-Run Off the Road Volume

Other-site subtype

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

Expected crash frequency with EB adjustment Other-Run off the Road

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. EPDO

How are projects under this program advanced for implementation?

Other-HSIP Committee evaluation

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

Rank of Priority Consideration

Ranking based on B/C: 50 Available funding: 50

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

Sign replacements and improvements are implemented regionally so the annual set-aside varies depending on which geographic region is selected for improvement.

What percentage of HSIP funds address systemic improvements?

50

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

Rumble Strips
Install/Improve Signing
Install/Improve Pavement Marking and/or Delineation
Upgrade Guard Rails
Add/Upgrade/Modify/Remove Traffic Signal
Horizontal curve signs
Other-Median barriers - cable and other types
Other-Guardrail - replacement of deficient terminal units

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

Installation of retroreflective backplates on State-owned signals is underway; similar municipal initiative is planned.

Conversion of signalized permissive left turn signals to flashing yellow arrows is planned for both State-owned and municipal signals.

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

Engineering Study
Rumble Strips
Crash data analysis
SHSP/Local road safety plan
Install/Improve Signing
Stakeholder input
Upgrade Guard Rails
Add/Upgrade/Modify/Remove Traffic Signal
Horizontal curve signs

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

Does the State HSIP consider connected vehicles and ITS technologies?

No

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

NHDOT has not begun to implement specific infrastructure improvements to support connected vehicles and emerging ITS 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.

The NHDOT uses the Highway Safety Manual, Part D, to support our project selection and evaluation of improvement alternatives. Crash modification factors are selected from the HSM and the CMF Clearinghouse website. The NHDOT strives to achieve an initial benefit-cost ratio of at least 2.0 for new projects to ensure that as the projects' scopes and costs evolve through the project development process, an acceptable b-c ratio (greater than 1.0) can be sustained.

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

No

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.

The NHDOT Bureau of Highway Design is undergoing reorganization, one result of which will be the creation of a Safety Section tasked with administering the HSIP including the selection, evaluation, and delivery of infrastructure safety projects, and stewardship of the SHSP. This will enhance the NHDOT's safety capabilities by expanding upon our staff focused on this core federal program. The new Safety Section will also work closely with FHWA to develop and sustain the data analysis capabilities needed to support our HSIP.

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.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED		
HSIP (23 U.S.C. 148)	\$9,401,955	\$7,265,909	77.28%		
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$79,532	\$79,532	100%		
Penalty Funds (23 U.S.C. 154)	\$0	\$0	0%		
Penalty Funds (23 U.S.C. 164)	\$0	\$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	\$9,481,487	\$7,345,441	77.47%		

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

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

0%

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

0%

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

Local safety projects are eligible for consideration for HSIP funding, but no specific program funding level has been established.

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

\$400,000

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

\$433,400

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

This programmed figure is not a set-aside and varies annually depending on the priorities. Recent non-infrastructure safety projects included road safety audits, a speed study, and an evaluation of the NHDOT's rumble strip policy and design standards.

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.

NHDOT does not transfer funds into or out of HSIP.

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

The State of New Hampshire Highway Fund, comprised of revenue from motor vehicle fuel taxes and other fees, is devoted to State-funded highway operations and maintenance. Thus New Hampshire's Federal highway funding, rather than being matched by State funds, is matched by Federal funds in the form of turnpike toll credits. The result is that highway safety funding in New Hampshire is entirely reliant on Federal funding. Any interruption of Federal highway funding would lead to a cessation of New Hampshire's highway safety program. Also, this lack of State highway funds also prevents the State of New Hampshire from being able to leverage the limited Federal safety funds by matching them with State funds, which could support an expanded safety program.

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 NHDOT road safety audit application and selection process provides a predictable and objective means for communities to have their priority safety concerns addressed in a timely manner. Furthermore, the use of CMFs provides a data driven process for selecting and evaluating countermeasures.

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

													RELATIONS	HIP 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
Swanzey 40485	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$27500	\$27500	HSIP (23 U.S.C. 148)	Rural Major Collector	4,400	30	State Highway Agency	Spot	Intersections	Reducing intersection crashes
Pelham- Chesterfield 29338	Advanced technology and ITS	Advanced technology and ITS - other	2	Intersections	\$11000	\$11000	HSIP (23 U.S.C. 148)		0		State Highway Agency	Road safety audits	Intersections	Reduce intersection crashes
Farmington 16212	Roadway	Roadway - restripe to revise separation between opposing lanes and/or shoulder widths	0.6	Miles	\$1765951	\$1765951	HSIP (23 U.S.C. 148)	Rural Minor Arterial	17,900	40	State Highway Agency	Road safety audit	Lane Departure	Pavement markings
Statewide 41338	Intersection traffic control	Modify traffic signal - add backplates with retroreflective borders	192	Intersections	\$115500	\$115500	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Intersections	Reducing intersection crashes
Ossipee 29315	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$33000	\$33000	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,820	35	State Highway Agency	Road safety audit	Intersections	Reduce intersection crashes
Derry 24861	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$181500	\$181500	HSIP (23 U.S.C. 148)	Urban Minor Arterial	12,400	45	State Highway Agency	Spot	Intersections	Reduce intersection crashes
Peterborough 15698	Advanced technology and ITS	Advanced technology and ITS - other	1	Intersections	\$79200	\$79200	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	10,500	50	State Highway Agency	Road safety audit	Intersections	Reduce intersection crashes
Lancaster- Shelburne 41204	Roadside	Barrier- metal	4.6	Miles	\$1323930	\$1323930	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	Reducing lane departure crashes
Statewide 41418	Intersection traffic control	Intersection flashers - add stop sign-mounted	1	Intersections	\$16500	\$16500	HSIP (23 U.S.C. 148)		0		State Highway Agency	Road safety audit	Intersections	Reduce intersection crashes
Statewide 40803	Roadside	Barrier- metal	3.4	Miles	\$165000	\$165000	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	Reduce lane departure crashes
Brookline 41489	Speed management	Speed management - other	6.8	Miles	\$22000	\$22000	HSIP (23 U.S.C. 148)	Rural Minor Arterial	6,000	50	State Highway Agency	Spot	Intersections	Reduce intersection and lane departure crashes
Canterbury- Northfield 41057	Roadside	Barrier- metal	6.7	Miles	\$1182500	\$3909037	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	16,800	70	State Highway Agency	Systemic	Roadway Departure	Reduce lane departure crashes
Claremont 25621	Access management	Change in access - close or restrict existing access	2	Access points	\$33000	\$55000	HSIP (23 U.S.C. 148)	Urban Minor Arterial	20,900	30	City of Municipal Highway Agency	Road safety audit	Intersections	reduce intersection crashes
District Three 24863	Roadside	Barrier- metal	2.9	Miles	\$998739	\$998739	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	reduce lane departure crashes

		·											RELATIONS	HIP 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
Henniker 28735	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections	\$315	\$85556	HSIP (23 U.S.C. 148)	Rural Local Road or Street	0	30	Town or Township Highway Agency	Road safety audit	Intersections	Reduce intersection crashes
Statewide 40604	Roadside	Barrier- metal	3.4	Miles	\$962224	\$962224	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	Reduce lane departure crashes
Statewide 40864	Non-infrastructure	Road safety audits	4	Locations	\$110000	\$110000	HSIP (23 U.S.C. 148)		0			Systemic	Intersections	Reduce intersection crashes
Statewide 40913	Non-infrastructure	Data/traffic records			\$110000	\$110000	HSIP (23 U.S.C. 148)		0				Data	Develop strategic plan for data improvements and analysis tools
Statewide 40921	Non-infrastructure	Road safety audits	5	Locations	\$11000	\$11000	HSIP (23 U.S.C. 148)		0			Systemic	Intersections	Reduce intersection crashes
Statewide 40922	Intersection traffic control	Modify traffic signal - add backplates with retroreflective borders	100	Intersections	\$429989	\$429989	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Intersections	Reduce intersection crashes
Statewide 41269	Roadside	Barrier- metal	2.9	Miles	\$181500	\$181500	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	Reduce lane departure crashes
Statewide 41280	Non-infrastructure	Non-infrastructure - other	1	Update Strategic Highway Safety Plan	\$20900	\$20900	HSIP (23 U.S.C. 148)		0			Program support	Relates to all emphasis areas of SHSP	
Statewide 41283	Non-infrastructure	Road safety audits	2	Locations	\$93500	\$93500	HSIP (23 U.S.C. 148)		0			Road safety audits	Intersections	Reduce intersection crashes
Tilton 29358	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$11000	\$11000	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	11,000	40	State Highway Agency	Road safety audit	Intersections	Reduce intersection crashes
Keene 26765	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	\$260828	\$260828	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	21,570	40	State Highway Agency	Spot	Intersections	Reduce intersection crashes
Brookline 40092	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersections	\$548256	\$548256	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,800	50	State Highway Agency	Road safety audit	Intersections	Reduce intersection crashes
Statewide 28137	Roadway signs and traffic control	Curve-related warning signs and flashers			\$39286	\$39286	HSIP (23 U.S.C. 148)		0		State Highway Agency	Systemic	Roadway Departure	Reduce lane departure crashes

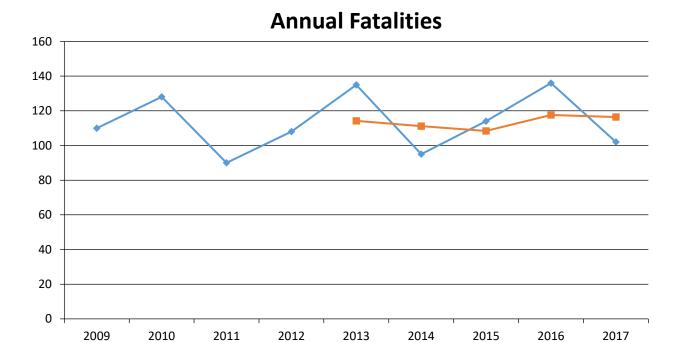
Enter additional comments here to clarify your response for this question or add supporting information.

Safety Performance

General Highway Safety Trends

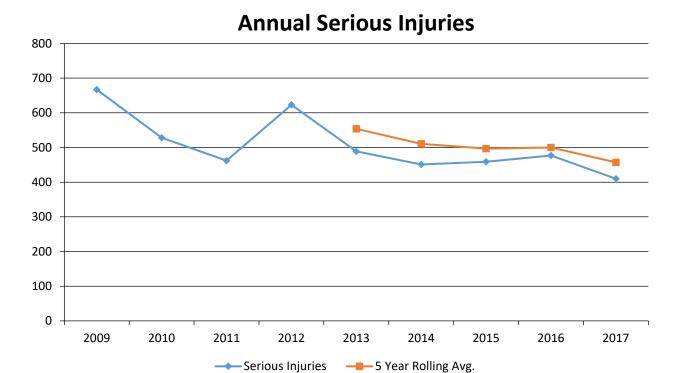
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fatalities	110	128	90	108	135	95	114	136	102
Serious Injuries	667	528	462	623	489	451	459	477	410
Fatality rate (per HMVMT)	0.848	0.980	0.708	0.838	1.046	0.732	0.871	1.009	0.746
Serious injury rate (per HMVMT)	5.141	4.041	3.632	4.832	3.790	3.477	3.505	3.540	2.997
Number non-motorized fatalities	9	9	9	9	17	16	13	21	14
Number of non-motorized serious injuries	35	32	43	50	40	37	53	42	40

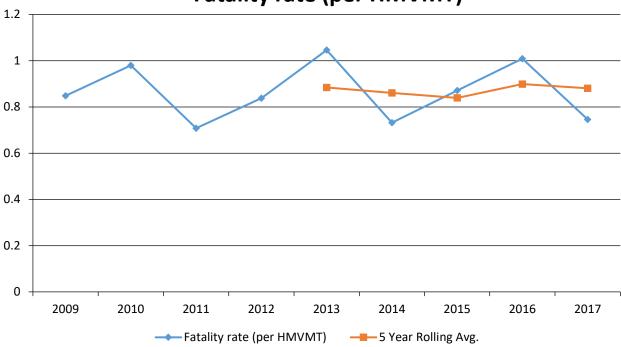


── 5 Year Rolling Avg.

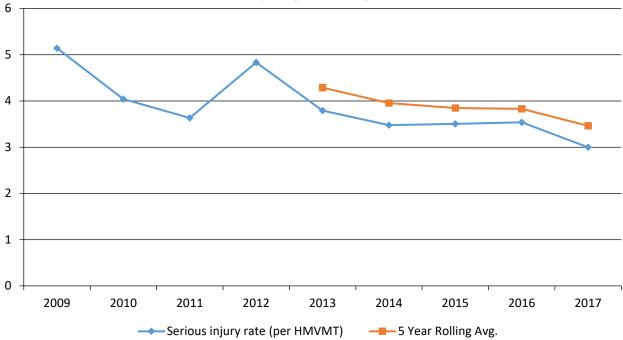
----Fatalities

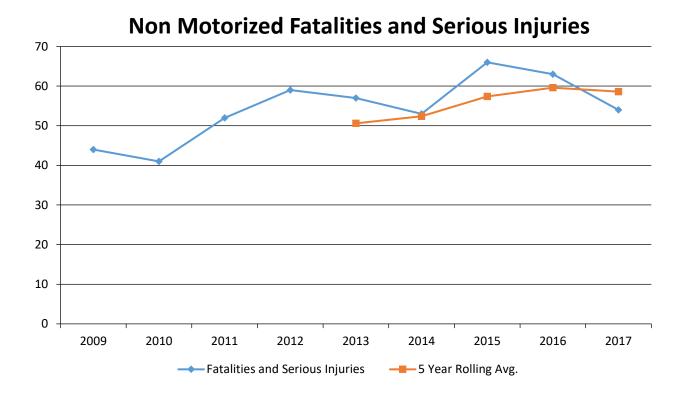


Fatality rate (per HMVMT)



Serious injury rate (per HMVMT)





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

For the period of 2008 to 2010 the annual serious injury numbers are values NHDOT used in previous reports, which do not match the values reported by the Office of Highway Safety in 2008 because in those three years OHS was incorrectly reporting all injuries rather than only serious injuries. NHDOT serious injury values do match the OHS for period of 2011 to 2016 because in these reports the OHS excluded the prior incorrect values.

Data sources are prescribed by the regulations:

Fatalities: NHTSA

Rate of Fatalities (HMVMT): NHTSA & HPMS

Serious Injuries: NH Department of Safety (NHDOS) Rate of Serious Injuries (HMVMT): NHDOS & HPMS

Non Motorized Fatalities & Serious Injuries: NHTSA & NHDOS

NHTSA – Fatality data is posted by NHTSA. The source is considered consistent and reliable. Data is available from 2007 allowing for the use of 5-yr averages for trend analysis.

HPMS – Traffic volume data is calculated by DOT and posted by FHWA. The source is considered consistent and reliable. Data is available from 2007 allowing for the use of 5-yr averages for trend analysis.

DOS – Serious injury data for motorized and non-motorized crashes is gathered from the NHDOS Division of Motor Vehicle's VISION database and provided to the NHDOT. The VISION system is newly implemented and its 2017 data has been corroborated and approved for use. Sufficient annual data is available (via VISION and its predecessor, IDMS) to permit the computation of five-year averages for trend analysis. Some of the annual variation in the data may be due to the more subjective nature of determining what constitutes a serious injury

2018 New Hampshire Highway Safety Improvement Program crash. Model Minimum Uniform Crash Criteria (MMUCC) introduced in recent years have helped to standardize the definition and proper classification of serious injuries.

Describe fatality data source.

FARS

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

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

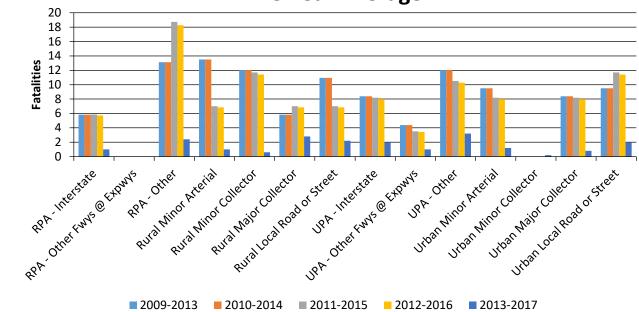
Year 2017

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	1		0.09	
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	2.4		0.23	
Rural Minor Arterial	1		0.09	
Rural Minor Collector	0.6		0.12	
Rural Major Collector	2.8		0.26	
Rural Local Road or Street	2.2		0.58	
Urban Principal Arterial (UPA) - Interstate	2		0.1	
Urban Principal Arterial (UPA) - Other Freeways and Expressways	1		0.07	
Urban Principal Arterial (UPA) - Other	3.2		0.24	
Urban Minor Arterial	1.2		0.07	
Urban Minor Collector	0.2			
Urban Major Collector	0.8		0.09	
Urban Local Road or Street	2		0.24	

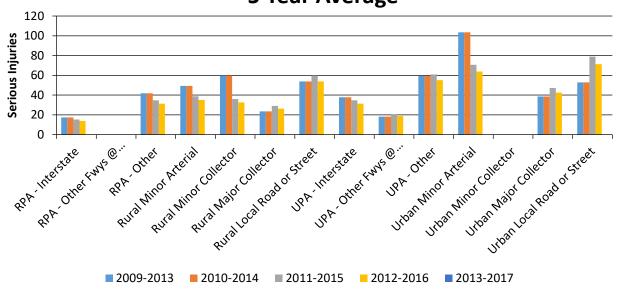
Year 2017

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	16	39.4	0.15	0.37
County Highway Agency				
Town or Township Highway Agency	2	19	0.12	1.16
City of Municipal Highway Agency	2.4	15.6	0.16	1.05
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

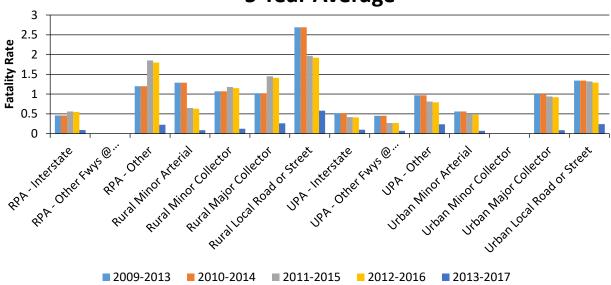
Number of Fatalities by Functional Classification 5 Year Average



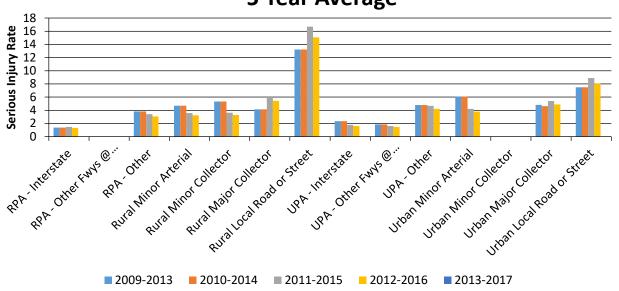
Number of Serious Injuries by Functional Classification 5 Year Average



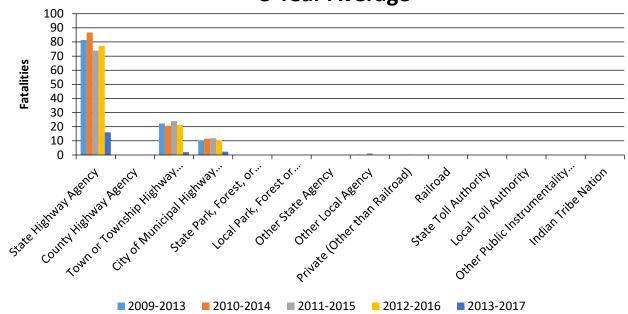
Fatality Rate (per HMVMT) by Functional Classification 5 Year Average



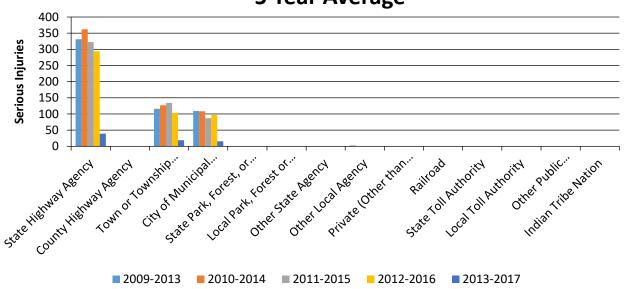
Serious Injury Rate (per HMVMT) by Functional Classification 5 Year Average



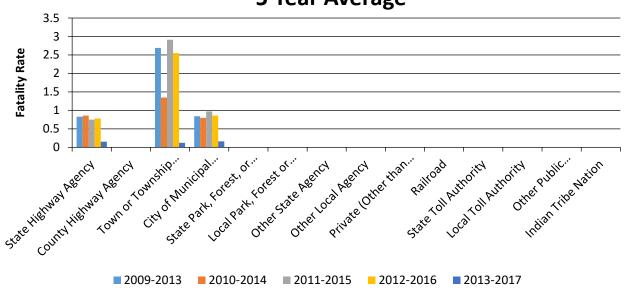
Number of Fatalities by Roadway Ownership 5 Year Average



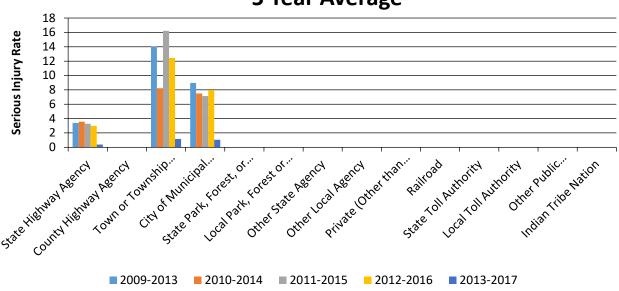
Number of Serious Injuries by Roadway Ownership 5 Year Average



Fatality Rate (per HMVMT) by Roadway Ownership 5 Year Average



Serious Injury Rate (per HMVMT) by Roadway Ownership 5 Year Average



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

2017 serious injury data is not yet available. Due to the NH Department of Safety's migration from their former crash records database (known as CRMS) to a new MMUCC-compliant system (known as VISION), geolocated serious injury data is not available for querying by functional classification. The NHDOT is confident that this data will be available for the FY2018 reporting, at which time any missing 2017 data will be completed.

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

No

Safety Performance Targets
Safety Performance Targets

Calendar Year 2019 Targets *

Number of Fatalities

116.4

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

Trend analysis of the fatalities data produces mostly intuitive results. The 2017 five year averages are 116.4 fatalities and 0.881 fatalities per HMVMT. Fatalities in the

last decade have shown wide variation over a one to two year cycle, with the number of 2017 fatalities being near the minimum for the decade. The five year average of the number of fatalities also dropped from 2016 to 2017, yet the trend line predicts a slight increase in fatalities for 2019. The annual fatalities rates and the five year averages mimic the same patterns seen in the numbers of fatalities, but the computed trend line shows a slight reduction in the 2019 target value as compared to the 2017 value. A 2019 target of 116.4 fatalities (i.e., maintaining the 2017 five-year average) is recommended for the following reasons. First, adopting a rising target as computed by the trend line would be contrary to the purpose of the HSIP and the Departments' ambitions of achieving performance improvements. Second, analysis of the annual data indicates that next year's five-year average computation will replace the statistically high year of 2013 with a possibly lower data point for 2018.

Number of Serious Injuries

433.2

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

The number and rate of serious injuries dropped by 17 and 18 percent in 2017, respectively. The resulting trend analysis computed 2019 targets representing 4.1% and 4.6% annual reductions, respectively, from the 2017 five year averages. The computed targets are substantially lower than any historical values within the analysis period (prior to 2017). Sustaining this dramatic improvement in performance is difficult to justify absent any major identifiable contributing factors. A 2019 target of 433.2 serious injuries is recommended as it would be a more achievable goal consistent with the observed safety performance in recent years. This target represents an annual reduction in the five year average of 2.7%. The target for number of serious injuries has been computed by assuming the crash performance seen in 2017 is repeated in 2018 and 2019.

Fatality Rate

0.879

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

Trend analysis of the fatalities data produces mostly intuitive results. The 2017 five year averages are 116.4 fatalities and 0.881 fatalities per HMVMT. Fatalities in the last decade have shown wide variation over a one to two year cycle, with the number of 2017 fatalities being near the minimum for the decade. The five year average of the number of fatalities also dropped from 2016 to 2017, yet the trend line predicts a slight increase in fatalities for 2019. The annual fatalities rates and the five year averages mimic the same patterns seen in the numbers of fatalities, but the computed trend line shows a slight reduction in the 2019 target value as compared to the 2017 value. A 2019 target fatality rate of 0.879 fatalities per HMVMT as computed by the trend line is recommended as this target is reasonable and consistent with recent performance, and confirms the NHDOT's goal to reduce fatal crashes.

Serious Injury Rate

3.207

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

The number and rate of serious injuries dropped by 17 and 18 percent in 2017, respectively. The resulting trend analysis computed 2019 targets representing 4.1% and 4.6% annual reductions, respectively, from the 2017 five year averages. The computed targets are substantially lower than any historical values within the analysis period (prior to 2017). Sustaining this dramatic improvement in performance is difficult to justify absent any major identifiable contributing factors. A 2019 target serious injury rate of 3.207 fatalities per HMVMT is recommended as it would be a more achievable goal consistent with the observed safety performance in recent years. This target represents an annual reduction in the five year average of 3.9%. The serious injury rate target has been computed by assuming the crash performance in 2017 is repeated in 2018 and 2019.

Total Number of Non-Motorized Fatalities and Serious Injuries

53.4

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

Simple trend analysis predicts a rising value (poorer performance) of 56.7 non-motorized fatalities and serious injuries. Although similar poor performance has been experienced in the past (as recently as 2015) the result contradicts ambitions of achieving performance improvements and creates a politically challenging message. A 2019 target of 53.4 fatalities and serious injuries (i.e., maintaining the 2017 five-year average) is recommended for the following reasons. First, adopting a rising target as computed by the trend line would be contrary to the purpose of the HSIP and the NHDOT's ambitions of achieving performance improvements. Second, the recommended target appears to be a realistic and achievable goal as it is consistent with recent years' safety performance.

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

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

Building upon the successful target-setting practices that had been developed and documented in prior years, the NHDOT began the annual target-setting with a meeting among the safety stakeholders. A meeting among the principal participants in the target setting, including the NHDOT, the NH Office of Highway Safety (NHOHS), a representative MPO, and the FHWA NH Division was held in March 2018 to review and confirm the target-setting process to be undertaken. Using data provided by the NH Department of Safety (NHDOS) and Division of Motor Vehicles, the NHDOT compiled the data, computed draft targets, modified the targets as appropriate, and composed narratives to document and defend the selected targets. These draft targets were reviewed with the NHDOT HSIP Committee and the NHOHS, as well as NHDOT and NHDOS leadership for concurrence. The accepted targets for the three common safety performance measures (number of fatalities, rate of fatalities, number of serious injuries) were published by the NHOHS in their annual Highway Safety Plan.

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.

Applicability of Special Rules

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

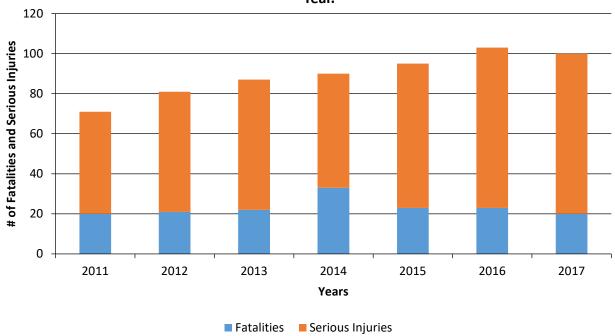
No

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

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	2011	2012	2013	2014	2015	2016	2017
Number of Older Driver and Pedestrian Fatalities	20	21	22	33	23	23	20
Number of Older Driver and Pedestrian Serious Injuries	51	60	65	57	72	80	80

Number of Older Driver and Pedestrian Fatalities and Serious Injuries by Year.



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

from their former crash records database (known as CRMS) to a new MMUCC-compliant system (known as VISION), reliable serious injury data is not available for querying. To avoid skewing serious injury trends with unreliable 2017 data, the 2016 value of 80 SI crashes has been used as an estimate for 2017.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

Change in fatalities and serious injuries Benefit/Cost Ratio

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

Project locations are reviewed by 'naïve' evaluation of before/after safety performance.

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

NHDOT's HSIP program is data driven using crash data to select candidate locations for improvement and CMFs to select and evaluate countermeasures based on their benefit/cost ratios. This creates a program that relies heavily on data and improves locations based on the severity of crashes and cost effective improvements. The program's goal is to reduce fatal and serious injury crashes on NH roadways by improving safety with the proposed improvements.

NHDOT's HSIP program also includes systemic projects. These projects improve safety statewide and include several types of projects including the following: construction of median barriers on divided highways, installation of horizontal curve warning signs to comply with MUTCD, installation of retroreflective backplates on traffic signals, installation of centerline and edge line rumble strips and stripes, and replacement of deficient guardrail and its terminal units to meet current safety standards.

NHDOT feels these programs have reduced fatalities and serious injuries on NH roadways because these are all proven safety countermeasures, but this has not been corroborated with system-wide data analysis.

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

More systemic programs # RSAs completed Increased awareness of safety and data-driven process HSIP Obligations

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

The NHDOT aims to continue and expand our RSA program by encouraging communities, via the RPCs and MPOs, to apply for RSAs. The RSA candidates are screened according to crash performance, and the program has delivered worthwhile projects. The NHDOT also continues to deliver systemic projects with a recent emphasis on installing rumble strips, improving deficient guardrail elements, installing MUTCD-

2018 New Hampshire Highway Safety Improvement Program compliant curve signs, and enhancing signalized intersections with retroreflective backplates. A planned initiative will continue system signal improvements by implementing flashing yellow arrows. Both the flashing yellow arrows and retroreflective backplates initiatives are planned to be expanded to municipal roadways as well.

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

No

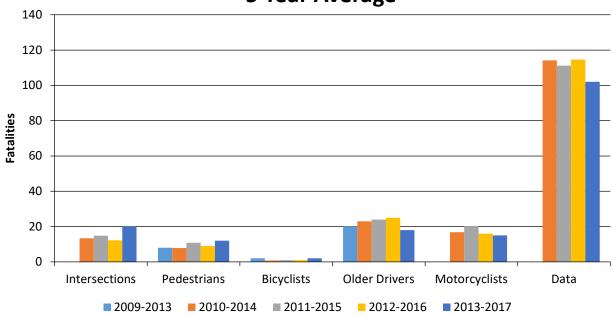
Effectiveness of Groupings or Similar Types of Improvements

Present and describe trends in SHSP emphasis area performance measures.

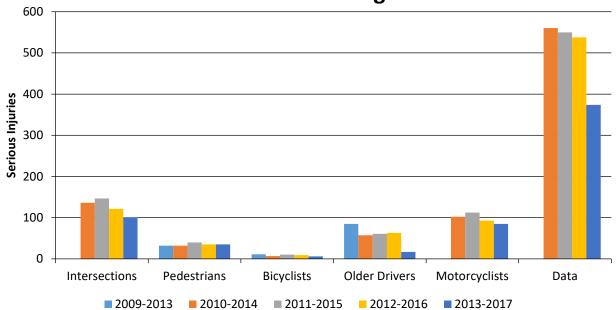
Year 2017

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)
Intersections		20	101	0.15	0.74
Pedestrians		12	35	0.09	0.26
Bicyclists		2	6	0.01	0.04
Older Drivers		18	17	0.13	0.12
Motorcyclists		15	85	0.11	0.62
Data		102	374	0.75	2.73

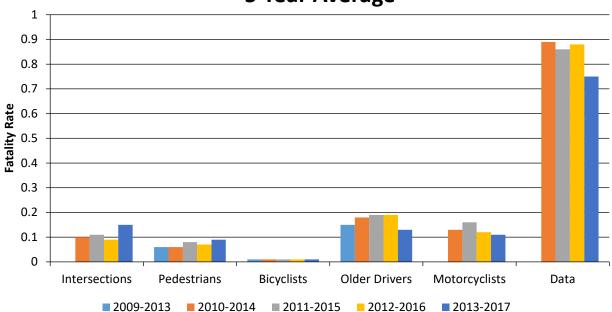
Number of Fatalities 5 Year Average



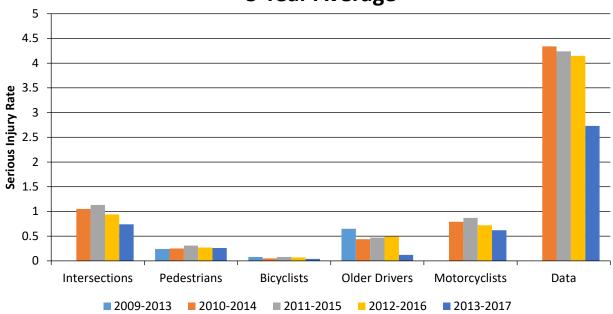
Number of Serious Injuries 5 Year Average



Fatality Rate (per HMVMT) 5 Year Average



Serious Injury Rate (per HMVMT) 5 Year Average



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

Reliable 2017 serious injury data is not yet available. Due to the recent NH Department of Safety's migration from their former crash records database (known as CRMS) to a new MMUCC-compliant system (known as VISION), geolocated serious injury data is not available for querying. Due to this data deficiency, the NHDOT is not able to provide 2017 counts for fatal crashes related to lane departure, road departure, or work zones, or

2018 New Hampshire Highway Safety Improvement Program serious injuries related to lane departure or work zones.

The NHDOT is confident that this data will be available for the FY2018 reporting period, at which time any missing or unreliable 2017 data will be verified and updated where necessary.

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.

Project Effectiveness

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

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
Pittsfield 24842	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - modify left-turn lane offset											
Whitefield P2953	Rural Principal Arterial (RPA) - Other	Roadway	Roadway - other	29.00	13.00	1.00		2.00		4.00	3.00	36.00	16.00	1.48
Statewide 15358	Rural Principal Arterial (RPA) - Other	Roadway	Rumble strips - center			4.00						4.00		
Derry 13249	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - modernization/replacement	62.00	114.00		1.00		4.00	12.00	35.00	74.00	154.00	0.78
New London 14451A	Rural Principal Arterial (RPA) - Other	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	23.00	56.00	1.00		3.00		6.00	2.00	33.00	58.00	19.05
Boscawen 13957A	Rural Principal Arterial (RPA) - Other	Intersection geometry	Intersection geometry - other	2.00	2.00			2.00		4.00		8.00	2.00	0.32
Holderness 15309	Rural Principal Arterial (RPA) - Other	Intersection geometry	Intersection geometrics - modify skew angle	7.00						1.00		8.00		3.61
Pittsfield 15622	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - modernization/replacement	13.00	2.00					7.00	1.00	20.00	3.00	1.65
Brentwood 15619	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - modernization/replacement	9.00	12.00	1.00		1.00		14.00	4.00	25.00	16.00	36.86
Greenland 15618	Urban Principal Arterial (UPA) - Other	Intersection geometry	Auxiliary lanes - add left- turn lane	26.00	20.00				1.00	7.00	11.00	33.00	32.00	3.02
Boscawen 15621	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify control - two-way stop to roundabout	14.00	16.00					6.00	1.00	20.00	17.00	0.55
Hampstead- Atkinson 15663	Urban Minor Collector	Intersection geometry	Auxiliary lanes - add right- turn lane	15.00	11.00	1.00				3.00	8.00	19.00	19.00	6.78
Lyme 15695	Rural Minor Collector	Intersection geometry	Intersection geometrics - modify skew angle	2.00	1.00					1.00		3.00	1.00	1.39
Effingham 16041	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Intersection signing - add enhanced regulatory sign (double-up and/or oversize)	6.00	1.00	3.00				2.00		11.00	1.00	532.64

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)
Epping 15693	Rural Principal Arterial (RPA) - Other	Intersection geometry	Through lanes - add additional through lane	56.00	49.00			1.00	1.00	18.00	9.00	75.00	59.00	1.16
Keene 20812	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify control - two-way stop to roundabout	12.00	1.00			1.00		1.00	3.00	14.00	4.00	0.93
Swanzey 15697A	Rural Minor Arterial	Roadside	Removal of roadside objects (trees, poles, etc.)	9.00	3.00					9.00	4.00	18.00	7.00	375.83
Barrington 16201	Rural Principal Arterial (RPA) - Other	Intersection geometry	Auxiliary lanes - add left- turn lane	12.00	4.00			1.00		6.00	2.00	19.00	6.00	0.90
Barnstead 16200	Rural Principal Arterial (RPA) - Other	Intersection geometry	Auxiliary lanes - add left- turn lane	17.00	1.00			2.00		4.00	1.00	23.00	2.00	1.58
Candia 16413	Rural Minor Collector	Intersection geometry	Intersection geometrics - re-assign existing lane use	3.00	12.00			1.00		3.00	3.00	7.00	15.00	5.9

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?

07/19/2017

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.

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 LO	CAL PAVED S - RAMPS	LOCAL PAV	ED ROADS	UNPAVE	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)	100	100					100	100	100	100
Route Number (8)	100	100								
Route/Street Name (9)	100	100								
Federal Aid/Route Type (21)	100	100								
Rural/Urban Designation (20)	100	100					100	100		
Surface Type (23)	100	100					100	100		
Begin Point Segment Descriptor (10)	100	100					100	100	100	100
End Point Segment Descriptor (11)	100	100					100	100	100	100
Segment Length (13)	100	100								
Direction of Inventory (18)	100	100								
Functional Class (19)	100	100					100	100	100	100
Median Type (54)	2	2								
Access Control (22)	100	100								

	NON LOCA ROADS - S	AL PAVED SEGMENT	NON LOCA ROADS - INT	AL PAVED ERSECTION	NON LOCA ROADS -	AL PAVED RAMPS	LOCAL PAV	ED ROADS	UNPAVE	D ROADS
MIRE NAME (MIRE NO.)	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
One/Two Way Operations (91)	100	100								
Number of Through Lanes (31)	100	100					100	100		
Average Annual Daily Traffic (79)	100	100					100	100		
AADT Year (80)	100	100								
Type of Governmental Ownership (4)	100	100					100	100	100	100
INTERSECTION										
Unique Junction Identifier (120)			100	100						
Location Identifier for Road 1 Crossing Point (122)			100	100						
Location Identifier for Road 2 Crossing Point (123)			100	100						
Intersection/Junction Geometry (126)			100	100						
Intersection/Junction Traffic Control (131)			0	0						
AADT for Each Intersecting Road (79)			100	100						
AADT Year (80)			100	100						
Unique Approach Identifier (139)			100	100						
INTERCHANGE/RAMP										
Unique Interchange Identifier (178)					2	0				
Location Identifier for Roadway at Beginning of Ramp Terminal (197)					100	100				
Location Identifier for Roadway at Ending Ramp Terminal (201)					100	100				
Ramp Length (187)					100	100				
Roadway Type at Beginning of Ramp Terminal (195)					100	100				
Roadway Type at End Ramp Terminal (199)					100	100				

	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
Interchange Type (182)					2	0				
Ramp AADT (191)					100	100				
Year of Ramp AADT (192)					100	100				
Functional Class (19)					100	100				
Type of Governmental Ownership (4)					100	100				

^{*}Based on Functional Classification

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

NHDOT has collected all but four of the Fundamental Data Elements. Those elements are median type, intersection / junction traffic control, unique interchange identifier, and interchange type. All FDEs will be collected on roads of Function Class 1 through 7. Work has begun on all but intersection / junction traffic control.

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.

NHDOT has completed data collection for all but four of the Fundamental Data Elements. Those remaining elements are median type, intersection/junction traffic control, unique interchange identifier, and interchange type. All FDEs will be collected on roads with function class 1 through 7. Work has begun to collect data for all but the intersection / junction traffic control FDE; these three FDEs are expected to be completed within four to six years.

The collection and management of the MIRE FDEs occurs within the NHDOT's Bureau of Planning and Community Assistance - GIS Section and is stored in the roadway data inventory. We use an ArcGIS environment along with an Oracle database. This data is also shared on 'NH GRANIT', which is NH's statewide GIS clearinghouse. Most elements are collected and updated on an annual basis by staff in the Planning and Community Assistance Bureau. Existing collection methodologies include collection by visiting sites and entering data into a laptop, or using aerial imagery and other forms of imagery to locate elements. Nightly scripts are run to aggregate the data. We will be looking at more modern methods such as data collection with tablets and mobile devices, via Lidar and with other emerging technologies.

All data collection and entry is currently done by NHDOT staff. The Bureau of Planning and Community Assistance assigns two staff at 100% of their time and two at 50% of their time, and Bureau of Traffic assigns two temporary staff (summer interns) at 100% of their time. NHDOT will continue to maintain the MIRE data and fund the collection of the data leveraging existing GIS tools within our current operating budgets.

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	A=incapacitating=serious injury	Yes	N/A	Yes	N/A	Yes
Crash Report Form Instruction Manual	suspected serious injury	Yes	It is estimated that Vision, the new electronic software, will have incorporated all towns/larger CRMS crash report by April 2019, which is the only way to be completely statewide MMUCC compatible.		The Department of Safety put together a data dictionary over a decade ago, but it will need to be updated with the current CRMS form.	
Crash Database	suspected serious injury	No	N/A	No	N/A	No

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 Database Data Dictionary	Incapacitating	No	Data dictionary needs to be updated as it is 10 years old.	No	It is estimated that Vision, the new electronic software, will have incorporated all towns/larger CRMS crash report by April 2019, which is the only way to be completely statewide MMUCC compatible.	No

Please describe the actions the State is taking to become compliant by April 15, 2019.

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

New Hampshire Traffic Records Strategic Plan Federal Fiscal Year 2018 July 1, 2017 Page 70

6.2 Model Minimum Uniform Crash Criteria (MMUCC) Compliance

New Hampshire's crash repository is currently designed according to MMUCC v3 guidelines.

New Hampshire is striving to achieve adoption of the definition for "Suspected Serious Injury (A)" from the MMUCC 4th edition by April 15, 2019. These plans include the following:

- Collecting and accurately aggregating MMUCC v4 attribute "Suspected Serious Injury (A)"
- The State's crash database, data dictionary, and crash report user manual employ the verbatim terminology and definitions for this attribute from the MMUCC v4 standard.
- The State's crash form employs the verbatim MMUCC v4 "Suspected Serious Injury (A)" attributes
- Ensure the seven serious injury types covered by the attribute are not included in the other attributes listed in the State's injury status data elements.

The NH Department of Safety (NHDOS) has introduced and begun use of a new crash database, known as VISION, to replace the former system known as the Crash Records Management System. VISION appears to be capable of receiving MMUCC IV compliant reports; however, the current reporting form in use by the majority of municipal law enforcement agencies does not provide all the fields necessary for full MMUCC compliance. NHDOS continues to work to expand the use of fully compliant electronic crash reporting throughout the state.

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.

2018

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

An HSIP program assessment is planned to be conducted in 2018.

Optional Attachments

Program Structure:
New Hampshire HSIP Guidance2013.doc
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.