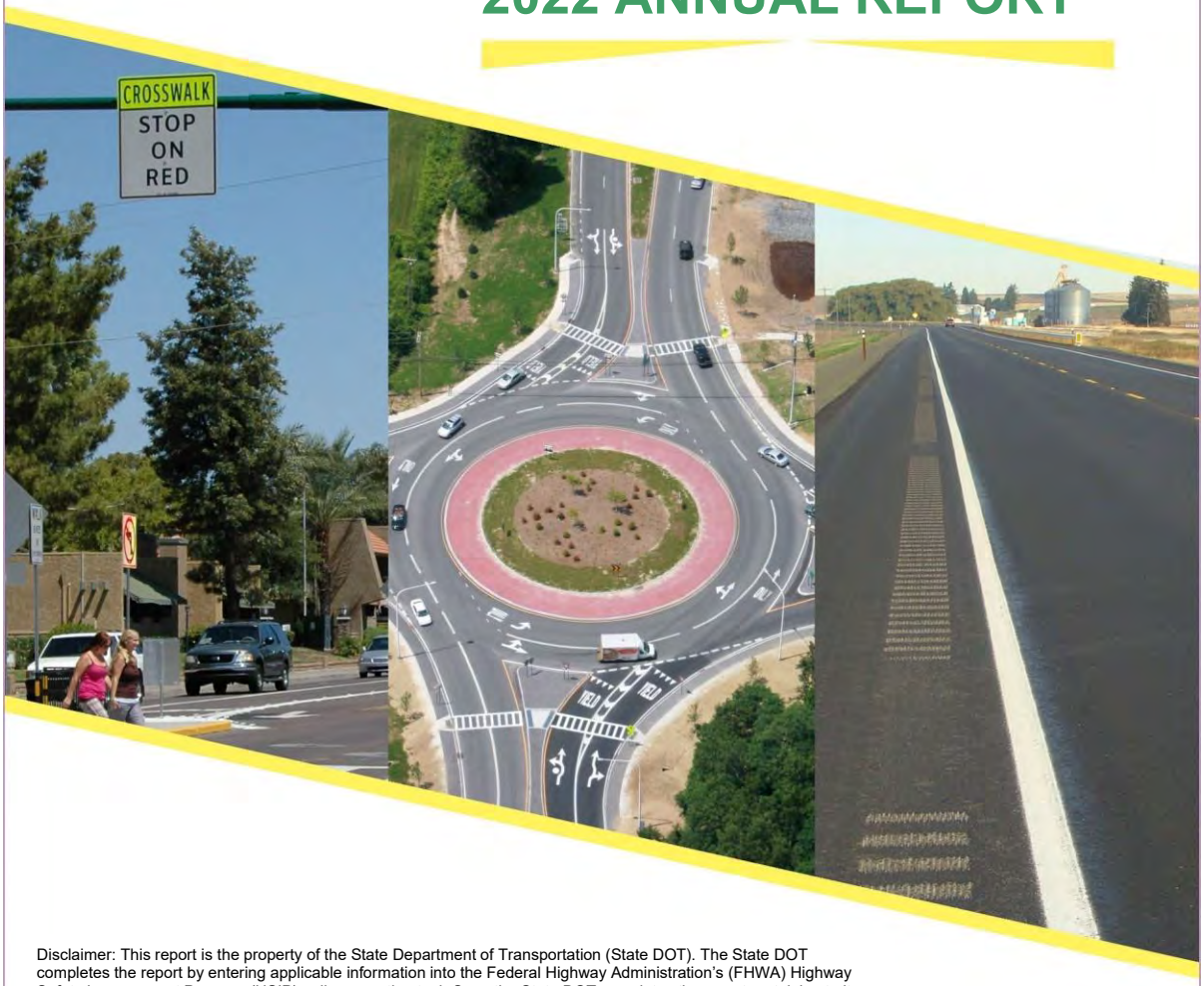
# RHODE ISLAND

# HIGHWAY SAFETY IMPROVEMENT PROGRAM

## 2022 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. 407 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

# Executive Summary

On behalf of the Rhode Island Department of Transportation (RIDOT) and the Office on Safety we are pleased to present the Highway Safety Improvement Program Annual Report for FY22.

In the past year, RIDOT has continued to make strides in the HSIP, including development of several systemic programs; streamlined effort to install countermeasures, and expanded local road program.

RIDOT has shifted most of our funding to the systemic program to help stretch our limited safety dollars. RIDOT develop a systemic, risk based GIS-based tool for both the STEP and Horizontal Curve programs. These 2 programs will help address over half of the fatal and serious injury crashes.

RIDOT also developed a ID/IQ type contract that can streamline the installation of improvements within 3-6 months from diagnosis as well as help save on overhead costs often seen in larger construction projects. RIDOT revised their State TIP to include the MPA starting in FY23.

RIDOT also began to develop a Local Road program to help locals address safety issues. RIDOT participated in a FHWA Local Road Safety Plan workshop and expanded the program in FY22.

# 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.

Since 2010, The Rhode Island Department of Transportation (RIDOT) has followed the Highway Safety Manual process to guide their HSIP.

**For network screening,** RIDOT currently focuses on three programs: Roadway Departure; Pedestrian/Bike; and Angle Crashes.

The roadway departure program uses both systemic, risk based approach for curves and clear zones. Crash frequency and SPFs are used to identify hot spots on tangent segments.
The Ped/Bike program uses a systemic, risk based approach using the STEP tool RIDOT recently developed. This tool uses over 20 attributes to assign a risk for each unsignalized crossings. For signalized crossings, RIDOT developed a systemic tool in FY22 and will begin to incorporate it into the screening process in FY23.

The angle crash program currently uses frequency. RIDOT developed a systemic tool in FY22 and will begin to incorporate it into the screening process in FY23.

**For diagnosis,** RIDOT conducts RSAs at most locations. For systemic treatments (curves, mid-block crossing), RIDOT often performs a smaller site visit.

**For countermeasure identification**, RIDOT relies on FHWA low-cost proven safety countermeasures, NCHRP, FHWA reports, and other safety documents to assist with countermeasure identification.

Improvements are d**esigned and implemented** in 3 ways: RIDOT Maintenance; ID/IQ or Project Management. RIDOT Maintenance and MPA allows RIDOT to streamline low-cost improvements (guardrail, signage, striping, tree removal) between 1 month and 1 year from diagnosis. Project Management is reserves for larger construction projects (roundabout, traffic signal replacement) and can take 1-3 years from diagnosis, funding dependent.

Once completed, the **projects are evaluated** to determine the safety effectiveness of the safety improvements. The resulting data will assist RIDOT with developing their own crash modification factors. RIDOT has developed a CMF for Road Diets and is currently developing them for Curve Delineation and High Friction.

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

Engineering

## How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process
- SHSP Emphasis Area Data

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

**Network Screening**
On an annual basis, the RIDOT identifies the roadway facilities exhibiting the most severe safety needs based on crash severity and frequency/exposure or the predictive method. Through the RIDOT's HSIP, ALL public roads are addressed, focusing on fatal and serious injury crashes in line with their SHSP and the performance measures set forth in MAP-21 and the FAST Act. Most of the State-owned roadway network and some of the local roadways are mapped to a Linear Referencing System; however, the majority of the local roadways is not referenced and is manually reviewed to ensure their inclusion into the HSIP process.

As part of RIDOT's STEP program, all roadways have been assigned a priority scope based on 20+ attributes. RIDOT plans on expanding its other systemic program inventory to local roads in the coming years.

As part of RIDOT's Horizontal Curve Program, all roadways will be reviewed for conformance.

**Diagnosis and Implementation**
The RIDOT works with municipalities to identify and mitigate crash issues on locally-maintained roadways. RIDOT has developed a process for locals to request a safety improvement with the intent for locals to perform the "planning" step from the HSIP process. RIDOT will then determine if the improvement is eligible for HSIP funds and distribute the funds needed to the locals so they can administer the construction of the improvements.

RIDOT has worked with several municipalities on pedestrian and bicycle safety. They have developed safety action plans for multiple communities with high pedestrian activity. RIDOT has also reviewed all segments statewide and assigned a "risk" score to them. This will help RIDOT and locals prioritize safety for vulnerable road users.

**Implementation**
To streamline the implementation of Low Cost Safety Improvements on all state and local roads, to reduce fatalities and serious injuries, RIDOT will implement ID/IQ contracting in FY2023. This will be funded with HSIP funds and will enable RIDOT to reduce project soft costs and accelerate delivery. The Office of Safety will administer these contracts with the goal to turn projects around within 6 months to a year from study

## Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

- Design
- Governors Highway Safety Office
- Local Aid Programs Office/Division
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

## Describe coordination with internal partners.

**Traffic Safety, Planning, and Operations:** RIDOT works internally with transportation planners (RIDOT internal and Statewide Planning), RIDOT GIS analysts, RIDOT safety engineers, RIDOT and OHS highway safety program coordinators and RIDOT operations staff as part of the entire HSIP process, including the identification of critical locations and the selection of appropriate countermeasures/ improvements. These partners are involved in Road Safety Assessments (RSAs) that were performed at many of these locations to facilitate this multi-discipline approach.

**Governors Highway Safety Office**: RIDOT also houses the Office of Highway Safety where the HSIP, HSP, and SHSP are all developed in a coordinated effort focused on developing consistent safety goals. Safety initiatives are now implemented in a more integrated and multi-disciplinary manner, providing RIDOT with more flexibility to direct resources to address particular safety needs. RIDOT and OHS along with RI's Office of Performance Management coordinated the development of performance measurement and targets for FY23.

**Design (Project Management)**: Office of Traffic Safety also works with the Project Management sections of RIDOT in bundle safety projects whenever feasible. These discussion commence at pre-scoping and continue thru scoping and final design.

**Maintenance**: RIDOT Maintenance forces implement the short-term improvements (signing, striping, minor signal work) identified by RIDOT Office of Safety from typical reviewed and RSAs.

**Local Aid:** RIDOT Office of Safety regularly coordinates with the LTAP to discuss any documented safety concerns on local roads and works together to help implement safety infrastructure improvements (incorporate into the STIP or to be performed by RIDOT Maintenance) as well as provide training opportunities for locals.

## Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Law Enforcement Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency

## Describe coordination with external partners.

**LEL and FHWA:** Both agencies are involved in bi-monthly safety meetings as well as the SHSP development process. They have direct input to the safety decisions the internal partners developed.

**RI MPO**: They are involved in the TIP process (specifically for safety projects) as well as the SHSP development process. Other MPO studies, such as the Bike Mobility Plan, Transit Master Plan, Long Range Transportation Plan, and Congestion Management Plan, are incorporated in the HSIP planning process where applicable.

**Tribal**: RIDOT address all public roads, including tribal agency roadways. Crashes on locally and tribal owned roadways are included in the network screening process. Any safety improvements necessary based on prioritization are coordinated with these agencies. Tribal agencies are included in the SHSP planning process and are stakeholders on the SHSP steering committee.

**Universities**: RIDOT Office of Safety works with URI to help fine-tune the HSIP network screening process, including development of state-specific SPFs.

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

RIDOT have expanded their systemic system to signalized intersections to join STEP and horizontal curves. The final sub program to have a systemic analysis performed to drive safety decisions is lane departure crashes along tangent segments. This is expected to be finalized in FY23.

## *Program Methodology*

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

Yes

A revision to the program manual is slated for 2023 with the addition of state-specific SPFs and CMFs and expanded info on systemic programs. This is currently underway and will be provided when final.

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

- Horizontal Curve
- HRRR
- Right Angle Crash
- Roadway Departure
- Safe Corridor
- Wrong Way Driving
- Other-Vulnerable Road Users

## Program: Horizontal Curve

### *Date of Program Methodology:8/1/2022*

### *What is the justification for this program?*

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

### *What is the funding approach for this program?*

Funding set-aside

### *What data types were used in the program methodology?*

**Crashes**

- Fatal and serious injury crashes only

**Exposure**

- Traffic
- Volume
- Lane miles

**Roadway**

- Horizontal curvature
- Functional classification
- Roadside features

### *What project identification methodology was used for this program?*

- Other-Probability of
- Probability of specific crash types

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

Yes

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

Yes

### *How are projects under this program advanced for implementation?*

- 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**

Other-Systemic Risk Score:75
Other-Number of K & A:25

## Program: HRRR

### *Date of Program Methodology:8/1/2022*

### *What is the justification for this program?*

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety
- Other-HRRR Special Rule

### *What is the funding approach for this program?*

Funding set-aside

### *What data types were used in the program methodology?*

| Crashes | Exposure | Roadway |
|---|---|---|
| • Fatal and serious injury crashes only | • Traffic<br>• Volume | • Horizontal curvature<br>• Functional classification |

### *What project identification methodology was used for this program?*

- Crash rate

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

Yes

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

Yes

### *How are projects under this program advanced for implementation?*

- selection committee

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

**Relative Weight in Scoring**

Ranking based on B/C:40
Available funding:20
Other-Systemic Risk Score:40
Total Relative Weight:100

## Program: Right Angle Crash

### *Date of Program Methodology:8/1/2022*

### *What is the justification for this program?*

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

### *What is the funding approach for this program?*

Funding set-aside

### *What data types were used in the program methodology?*

| Crashes | Exposure | Roadway |
|---|---|---|
| • Fatal and serious injury crashes only | • Volume<br>• Lane miles | |

### *What project identification methodology was used for this program?*

- Crash frequency
- Probability of specific crash types

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

Yes

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

Yes

### *How are projects under this program advanced for implementation?*

- selection committee

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

**Relative Weight in Scoring**

Ranking based on B/C:15
Other-Reduction in fatalities and injuries:15
Other-Systemic Risk Score:70
Total Relative Weight:100

## Program: Roadway Departure

### *Date of Program Methodology:8/1/2022*

### *What is the justification for this program?*

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

### *What is the funding approach for this program?*

Funding set-aside

### *What data types were used in the program methodology?*

| Crashes | Exposure | Roadway |
|---|---|---|
| • All crashes<br>• Fatal and serious injury crashes only | • Volume | • Median width<br>• Horizontal curvature<br>• Functional classification<br>• Roadside features<br>• Other-Roadway width<br>• Other-Clear Zone |

### *What project identification methodology was used for this program?*

- Excess expected crash frequency with the EB adjustment
- Other-Crash frequency - Fatal and serious crashes only
- Other-Facility risk factors/similar geometric types
- Relative severity index

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

Yes

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

Yes

### *How are projects under this program advanced for implementation?*

- selection committee

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

**Relative Weight in Scoring**

Ranking based on B/C:15
Other-Reduction in fatalities and injuries:15
Other-Systemic Risk Score:70
Total Relative Weight:100

## Program: Safe Corridor

### *Date of Program Methodology:8/1/2022*

### *What is the justification for this program?*

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

### *What is the funding approach for this program?*

Funding set-aside

### *What data types were used in the program methodology?*

**Crashes**

- All crashes
- Fatal and serious injury crashes only

**Exposure**

- Traffic
- Volume
- Other-Transit

**Roadway**

- Functional classification
- Roadside features
- Other-# Of Lanes

### *What project identification methodology was used for this program?*

- Other-Crash frequency - fatal and serious injury crashes only
- Other-Facility risk factors/similar geometric types
- Relative severity index

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

Yes

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

Yes

### *How are projects under this program advanced for implementation?*

- selection committee

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

**Relative Weight in Scoring**

Ranking based on B/C:15
Other-Reduction in fatalities and serious injuries:15
Other-Systemic Risk Score:70
Total Relative Weight:100

## Program: Wrong Way Driving

### *Date of Program Methodology:5/1/2015*

### *What is the justification for this program?*

- Addresses SHSP priority or emphasis area

### *What is the funding approach for this program?*

Funding set-aside

### *What data types were used in the program methodology?*

| Crashes | Exposure | Roadway |
|---|---|---|
| • Other-Wrong way driving incidents | | |

### *What project identification methodology was used for this program?*

- Other-Wrong Way Driving Incidents - Potential Freeway Entry Points

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

Yes

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

Yes

### *How are projects under this program advanced for implementation?*

- Other-Dedicated projects in TIP

### *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**

Other-Systemic Risk Score:100

## Program: Other-Vulnerable Road Users

### *Date of Program Methodology:8/1/2022*

### *What is the justification for this program?*

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

### *What is the funding approach for this program?*

Funding set-aside

### *What data types were used in the program methodology?*

**Crashes**

- All crashes
- Fatal and serious injury crashes only

**Exposure**

- Traffic
- Volume

**Roadway**

- Functional classification
- Other-Roadway width

### *What project identification methodology was used for this program?*

- Crash frequency
- Other-Facility risk/similar type geometrics

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

Yes

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

Yes

### *How are projects under this program advanced for implementation?*

- selection committee

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

**Relative Weight in Scoring**

Ranking based on B/C:15
Other-Systemic Risk Score:85
Total Relative Weight:100

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

75

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

- Add/Upgrade/Modify/Remove Traffic Signal
- Clear Zone Improvements
- High friction surface treatment
- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Pavement/Shoulder Widening
- Upgrade Guard Rails

### What process is used to identify potential countermeasures?

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Stakeholder input
- Other-Crash Modification Clearninghouse
- Other-NCHRP Report 500 Series

### Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

RIDOT has created a working Connected/Autonomous Vehicle (CAV) group made up of various departments with RIDOT including Traffic Safety. RIDOT is exploring CAV and its impact to safety.

Safety data is being reviewed by the Traffic Safety Section and is discussed as part of the upcoming newly developed SHSP CAV Emphasis Area as part of RIDOT's SHSP 5 year update.

RIDOT has placeholders in the TIP for CAV projects related to safety.

All new traffic signals are CAV (V2I) ready.

RIDOT is exploring pilot programs to incorporate CAV such as over-height detection for bridge strikes, automatic horizontal curve detection system, and Wrong Way Driving.

## 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.

RIDOT refers to the HSM methodologies on all aspects of safety where possible, including in the network screening, diagnosis, countermeasure selection, prioritization, and safety effectiveness evaluation categories. Please see attached HSIP Program Manual for more information (please note that this is currently being updated)

RIDOT has developed two state specific CMFs (Road Diets, and Horizontal Curves)

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

RIDOT encourages using the predictive method to use a more sound, data-driven approach to allocating resources that results in fewer fatalities and serious injuries on the nation's roadways. The predictive method (Excess expected crash frequency using SPFs, EB adjustment,) combines crash, roadway inventory and traffic volume data to provide more reliable estimates of an existing or proposed roadway's expected safety performance, such as crash frequency and severity. To achieve this goal, RIDOT undertook a large data collection effort to obtain all of the Model Inventory of Roadway Data Elements (MIRE), which included roadway, traffic, and other data needed to assist the RIDOT make the most efficient decisions where to allocate safety funds and resources. The RIDOT also is working on developing a data maintenance effort to ensure all data collected is updated on a timely basis. RIDOT has begun using the predictive method for some rural segment and will continue to expand in the coming years. RIDOT ahs also used this data to expand their systemic programs using risk based analysis.

RIDOT has also advanced a systemic, risk based analysis for horizontal curves and is currently collecting data to advance signalized intersection and roadway departure systemic programs in FY21-22.

RIDOT is expanding its systemic program in the next few years, including creating a detailed risk based analysis and process. RIDOT has automated this process by developing a tool that resided on a GIS platform for 2 programs (horizontal curves and STEP). The network screening portion of the tool would automate the site-specific and systemic identification process which is currently performed manually. For site-specific analysis, the tool will use state-specific SPF equations for all facility types, addressing the predictive analysis requirements. The tool will provide a list of locations ranked by Excess Excepted Crash Frequency (Expected Crashes – Predicted Crashes). The systemic analysis will use allow the user to identify potential trends (geometry, traffic volumes) that have a higher occurrence of fatal and serious injury crashes in RI using the crash and MIRE data incorporated into the tool. Once the potential trends (aka risk factors) are identified, the tool will identify locations that have similar trends which could lead to fatal or serious injury crashes. The user can assign a weighted “point “system for each trend to help prioritize locations based on severity or number of trends at a given site. This allows the tool to provide the user with a “ranked” list of risk-based locations

RIDOT also has its own HSIP Program Manual. The purpose of this document is to describe RIDOT's processes for planning, implementing, and evaluating HSIP funded improvements and to describe its relationship to other safety initiatives found in Rhode Island's SHSP. This document not only helps Rhode Island to demonstrate their own successes, but also serves as a mechanism for other states to achieve improved highway safety.

# Project Implementation

## *Funds Programmed*

### Reporting period for HSIP funding.

Federal Fiscal Year

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

| FUNDING CATEGORY | PROGRAMMED | OBLIGATED | % OBLIGATED/PROGRAMMED |
|---|---|---|---|
| **HSIP (23 U.S.C. 148)** | $18,500,000 | $18,500,000 | 100% |
| **HRRR Special Rule (23 U.S.C. 148(g)(1))** | $900,000 | $900,000 | 100% |
| **Penalty Funds (23 U.S.C. 154)** | $0 | $0 | 0% |
| **Penalty Funds (23 U.S.C. 164)** | $2,945,745 | $2,945,745 | 100% |
| **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% |
| **AID Grant** | $1,000,000 | $1,000,000 | 100% |
| **Totals** | $23,345,745 | $23,345,745 | 100% |

Preliminary numbers. Will be updated at part of final report once all projects have been obligated for FY22.

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

$2,000,000

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

$2,000,000

Preliminary numbers. Will be updated at part of final report once all projects have been obligated for FY22.

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

$1,000,000

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

$1,000,000

Preliminary numbers. Will be updated at part of final report once all projects have been obligated for FY22.

## 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%

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

**Project Delivery**
Currently, RIDOT has two methods for project delivery: state maintenance forces and project management. State maintenance forces are used to install basic signing and striping. This enables RIDOT to advance low-cost safety improvements for horizontal curves, pedestrian crossings, and intersections. Any improvements beyond this require projects to be programmed in a construction project administered by RIDOT's Project Management section. While larger and complex improvements, such as new traffic signals, roundabouts, and high friction treatments require this type of project delivery mechanism, lower cost improvements such as RRFBs, signal modifications, guardrail, etc. must wait 2-3 years for programming and often frustrates our safety partners in such a delay given the low cost and potential immediate benefit. To help streamline lower cost improvements to help drive down fatalities and serious injuries quicker and show action taken to safety stakeholders, RIDOT has developed a ID/IQ contract for lower cost improvements to start in FY2023. This will be funded with HSIP funds and will enable RIDOT to reduce project soft costs and accelerate delivery. The Office of Safety will administer these contracts with the goal to turn projects around within 6 months to a year from study.

**Stakeholder Outreach**
Engage safety stakeholders in a discussion about program needs and potential solutions. Consider talking to Highway Safety Office, the MPO, and local agencies.
RIDOT works internally with transportation planners (Statewide Planning), RIDOT GIS analysts, RIDOT safety engineers, RIDOT and OHS highway safety program coordinators and RIDOT operations staff as part of the entire HSIP process, including the identification of critical locations and the selection of appropriate countermeasures/ improvements. These partners are involved in Road Safety Assessments (RSAs) that were performed at many of these locations to facilitate this multi-discipline approach. RIDOT also houses the Office of Highway Safety where the HSIP, HSP, and SHSP are all developed in a coordinated effort focused on developing consistent safety goals. Safety initiatives are now implemented in a more integrated and multi-disciplinary manner, providing RIDOT with more flexibility to direct resources to address particular safety needs. As part of the FAST Act, the RIDOT and OHS along with RI's Office of Performance Management coordinated the development of performance measurement and targets. RIDOT has issues maintaining local support for safety projects. Often, over the project development period, local leadership changes and can undermine the final delivery of the project. As previously discussed, with the implementing of the Master Price Agreement contracts, RIDOT expects a turnaround time within 6 months to a year from study. This will avoid most of the conflict of local leadership turnover.

## *General Listing of Projects*

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

| PROJECT NAME | IMPROVEMENT CATEGORY | SUBCATEGORY | OUTPUTS | OUTPUT TYPE | HSIP PROJECT COST($) | TOTAL PROJECT COST($) | FUNDING CATEGORY | LAND USE/AREA TYPE | FUNCTIONAL CLASSIFICATION | AADT | SPEED | OWNERSHIP | METHOD FOR SITE SELECTION | SHSP EMPHASIS AREA | SHSP STRATEGY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Statewide Crosswalks and Intersection Improvements: East-South C-1 | Pedestrians and bicyclists | Pedestrians and bicyclists – other | 10 | Crosswalks | $2300000 | $2300000 | HSIP (23 U.S.C. 148) | Multiple/Varies | Multiple/Varies | 25,000 | 35 | Multiple | Systemic | Pedestrians | STEP |
| Statewide Crosswalks and Intersection Improvements: North-Central C-1 | Pedestrians and bicyclists | Pedestrians and bicyclists – other | 15 | Crosswalks | $3000000 | $3000000 | HSIP (23 U.S.C. 148) | Multiple/Varies | Multiple/Varies | 25,000 | 35 | Multiple | Systemic | Pedestrians | STEP |
| Statewide Crosswalks and Intersection Improvements: North-Central C-2 | Intersection traffic control | Intersection traffic control - other | 5 | Intersections | $3100000 | $3100000 | HSIP (23 U.S.C. 148) | Multiple/Varies | Multiple/Varies | 25,000 | 35 | Multiple | Systemic | Intersections | Angle |
| Statewide Crosswalks and Intersection Improvements: East-South C-2 | Intersection traffic control | Intersection traffic control - other | 7 | Intersections | $3000000 | $3000000 | HSIP (23 U.S.C. 148) | Multiple/Varies | Multiple/Varies | 25,000 | 35 | Multiple | Systemic | Intersections | Angle |
| Statewide Systemic Safety Improvements | Roadway | Pavement surface – high friction surface | 25 | Curves | $5000000 | $5000000 | HRRR Special Rule (23 U.S.C. 148(g)(1)) | Multiple/Varies | Multiple/Varies | 25,000 | 35 | Multiple | Systemic | Roadway Departure | Lane Departure, STEP |
| Route 112/138 Intersection Improvements | Intersection traffic control | Modify control – Modern Roundabout | 1 | Intersections | $1800000 | $1800000 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 15,000 | 35 | State Highway Agency | Spot | Intersections | Angle |
| Route 6/Hartford Avenue Corridor Safety Improvements | Roadside | Barrier – cable | 1 | Miles | $1900000 | $1900000 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other | 25,000 | 35 | State Highway Agency | Spot | Roadway Departure | Lane Departure |

2022 Rhode Island Highway Safety Improvement Program

| PROJECT NAME | IMPROVEMENT CATEGORY | SUBCATEGORY | OUTPUTS | OUTPUT TYPE | HSIP PROJECT COST($) | TOTAL PROJECT COST($) | FUNDING CATEGORY | LAND USE/AREA TYPE | FUNCTIONAL CLASSIFICATION | AADT | SPEED | OWNERSHIP | METHOD FOR SITE SELECTION | SHSP EMPHASIS AREA | SHSP STRATEGY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| On-Call HSIP/SHSP Support | Miscellaneous | SHSP Development | 2 | Contract/Consultant | $1500000 | $1500000 | HSIP (23 U.S.C. 148) | N/A | N/A | 0 | 0 | N/A | N/A | Data | Data |
| Route 37 at Natick Avenue Intersection Safety Improvements | Interchange design | Interchange design - other | 1 | Interchanges | $500000 | $500000 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other Freeways & Expressways | 30,000 | 50 | State Highway Agency | Spot | Intersections | Angle |
| I-295 South at Route 2 Interchange - Wrong Way Mitigation | Advanced technology and ITS | Wrong-way Driving Detection System | 1 | Ramps | $400000 | $400000 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other Freeways & Expressways | 30,000 | 35 | State Highway Agency | Systemic | Wriong Way Driving | Wrong Way Driving |
| Route 1A/Allens Avenue Corridor Safety Improvements | Pedestrians and bicyclists | On road bicycle lane | 1 | Miles | $1000000 | $1000000 | Penalty Funds (23 U.S.C. 164) | Urban | Principal Arterial-Other | 20,000 | 35 | State Highway Agency | Systemic | Pedestrians | STEP |

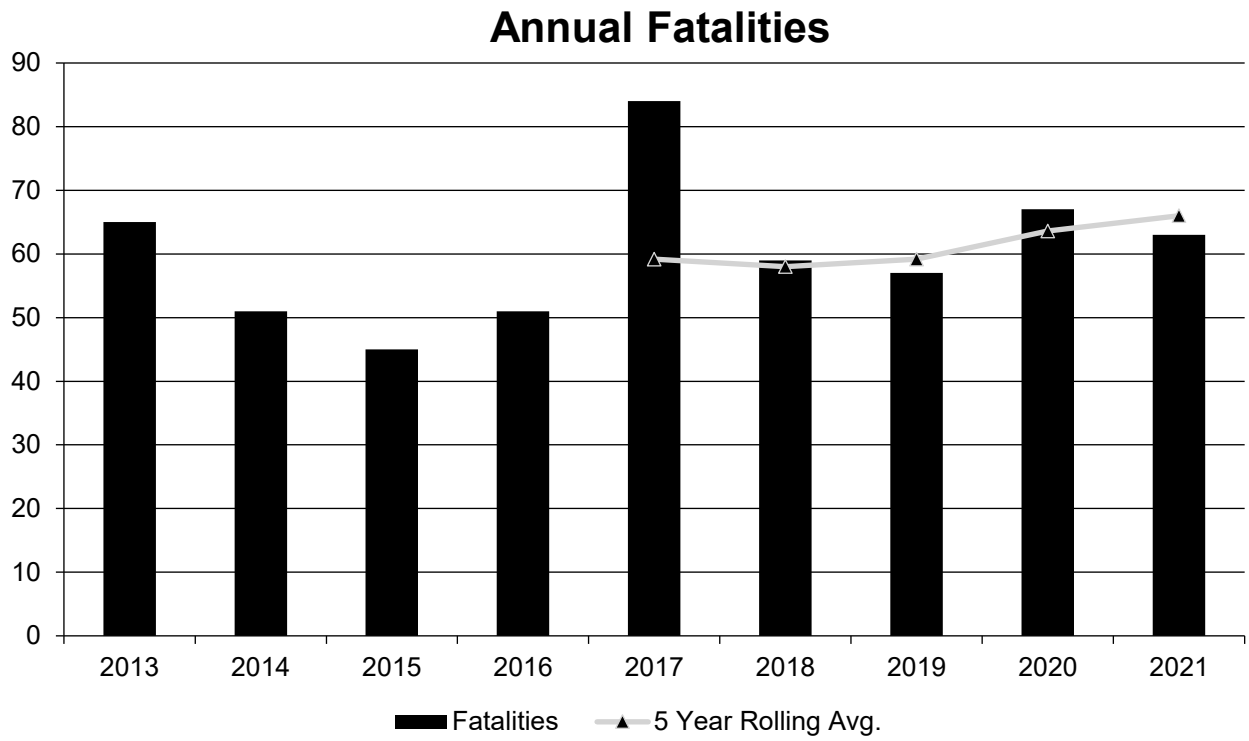
Preliminary numbers. Will be updated at part of final report once all projects have been obligated for FY22.

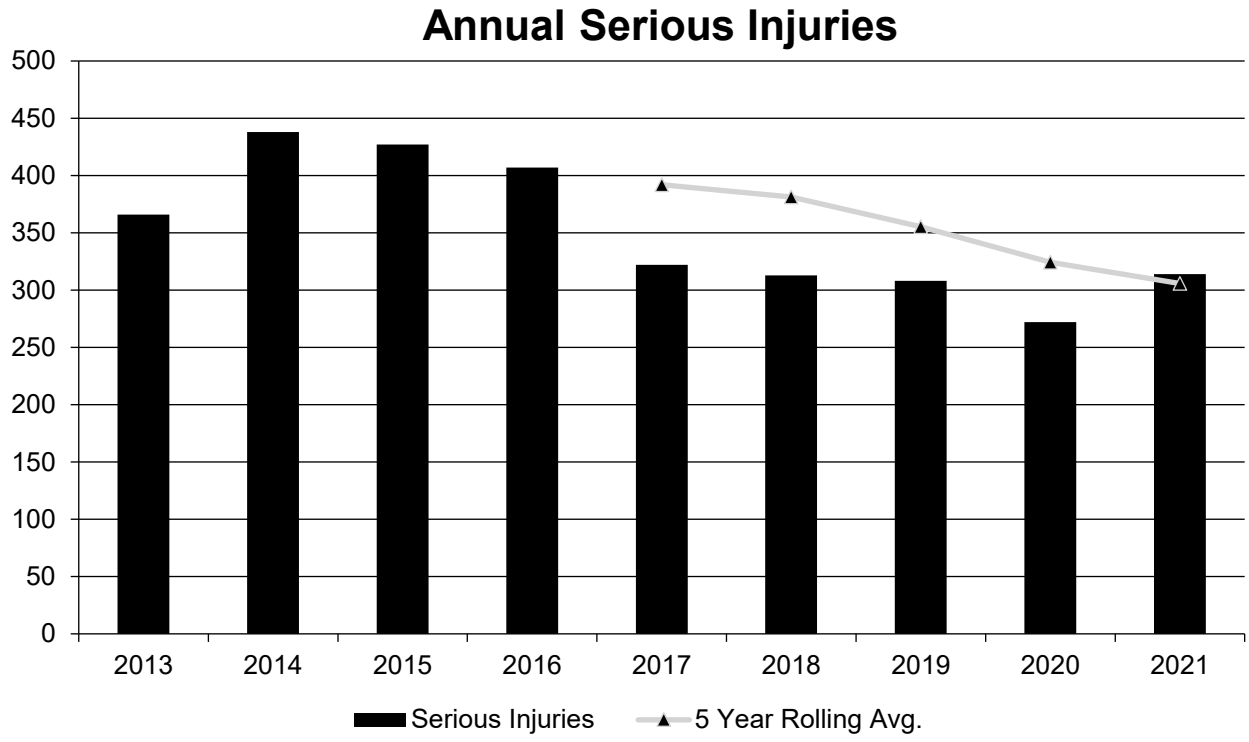
# Safety Performance

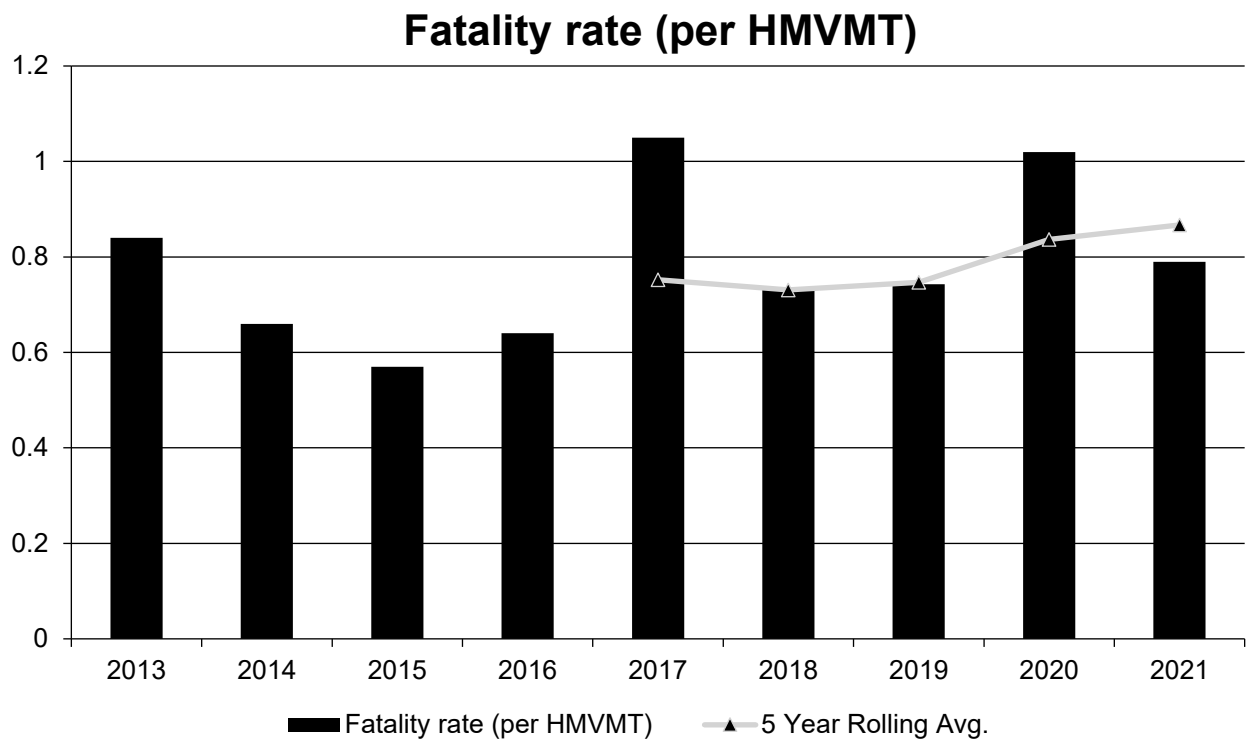
## *General Highway Safety Trends*

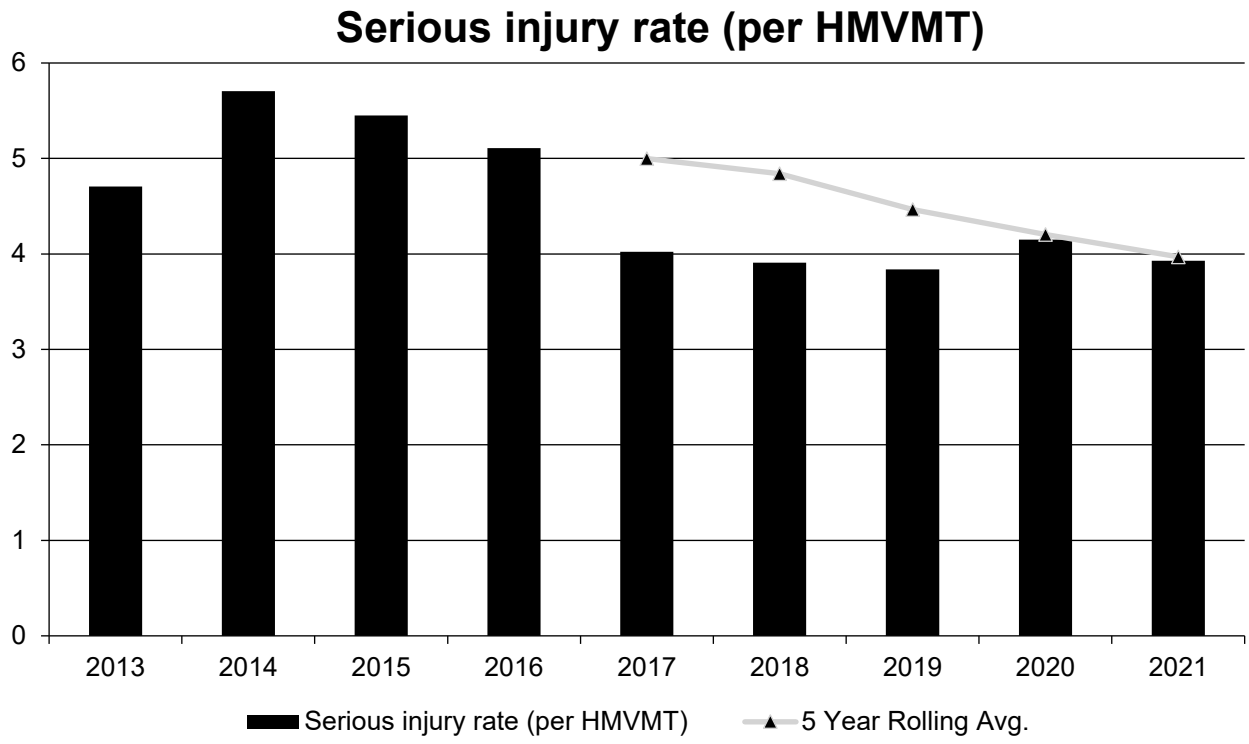
### Present data showing the general highway safety trends in the State for the past five years.

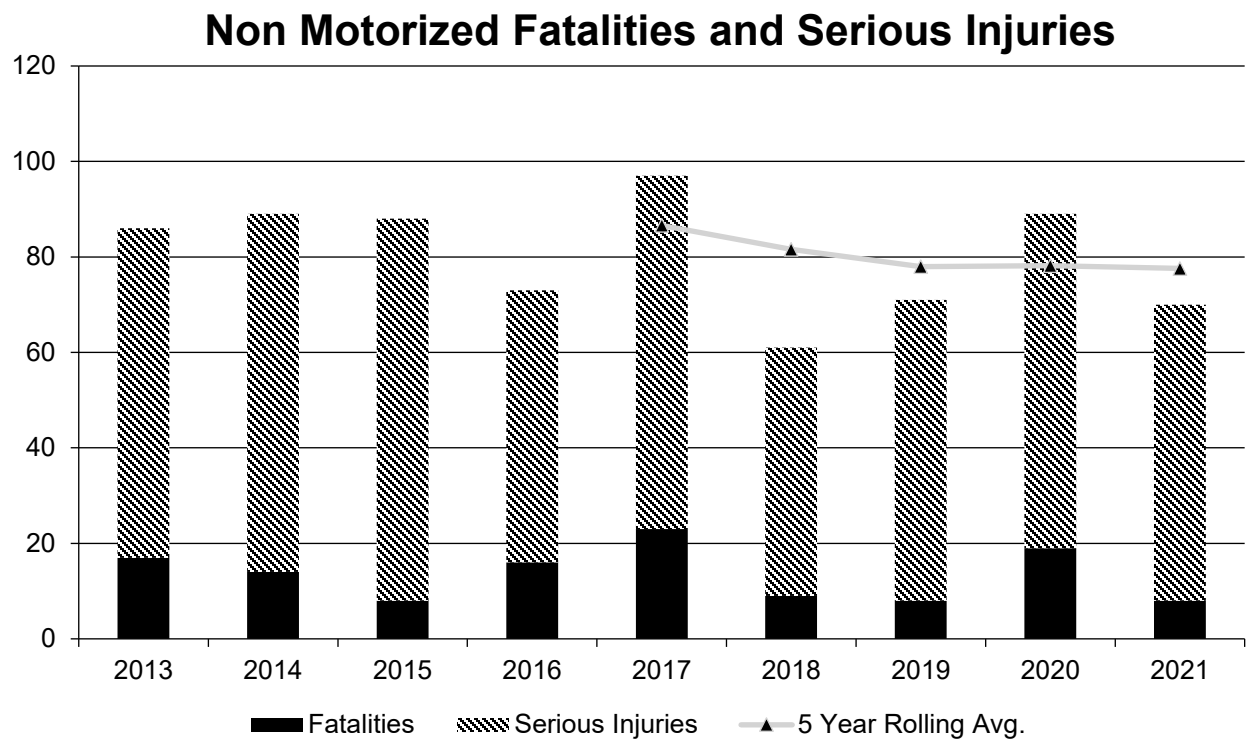
| PERFORMANCE MEASURES | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|
| Fatalities | 65 | 51 | 45 | 51 | 84 | 59 | 57 | 67 | 63 |
| Serious Injuries | 366 | 438 | 427 | 407 | 322 | 313 | 308 | 272 | 314 |
| Fatality rate (per HMVMT) | 0.840 | 0.660 | 0.570 | 0.640 | 1.050 | 0.734 | 0.743 | 1.020 | 0.790 |
| Serious injury rate (per HMVMT) | 4.707 | 5.705 | 5.451 | 5.108 | 4.024 | 3.908 | 3.837 | 4.150 | 3.930 |
| Number non-motorized fatalities | 17 | 14 | 8 | 16 | 23 | 9 | 8 | 19 | 8 |
| Number of non-motorized serious injuries | 69 | 75 | 80 | 57 | 74 | 52 | 63 | 70 | 62 |


Annual Fatalities
90
80
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
500
450
400
350
300
250
200
150
100
50
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Serious Injuries
5 Year Rolling Avg.


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


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




## Describe fatality data source.

FARS

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

**Year 2021**

| Functional Classification | Number of Fatalities (5-yr avg) | Number of Serious Injuries (5-yr avg) | Fatality Rate (per HMVMT) (5-yr avg) | Serious Injury Rate (per HMVMT) (5-yr avg) |
|---|---|---|---|---|
| Rural Principal Arterial (RPA) - Interstate | | | 0.72 | 0.66 |
| Rural Principal Arterial (RPA) - Other Freeways and Expressways | | 2.4 | 0.69 | 4.21 |
| Rural Principal Arterial (RPA) - Other | 3.4 | | 1.41 | 1.21 |
| Rural Minor Arterial | 3.2 | 5.2 | 2.87 | 4.64 |
| Rural Minor Collector | | | 0 | 16.02 |
| Rural Major Collector | 1.6 | 9 | 1.08 | 6.04 |

| Functional Classification | Number of Fatalities (5-yr avg) | Number of Serious Injuries (5-yr avg) | Fatality Rate (per HMVMT) (5-yr avg) | Serious Injury Rate (per HMVMT) (5-yr avg) |
|---|---|---|---|---|
| Rural Local Road or Street | | 4.6 | 6.58 | 21.34 |
| Urban Principal Arterial (UPA) - Interstate | 8.8 | 12.4 | 0.46 | 0.66 |
| Urban Principal Arterial (UPA) - Other Freeways and Expressways | 4 | 11.8 | 0.35 | 1.12 |
| Urban Principal Arterial (UPA) - Other | 13 | 54.2 | 0.7 | 2.91 |
| Urban Minor Arterial | 9.6 | 63.6 | 0.92 | 6.12 |
| Urban Minor Collector | | | 2.29 | 37.78 |
| Urban Major Collector | 6.8 | 49 | 1.14 | 8.26 |
| Urban Local Road or Street | 4.4 | 46.6 | 1.14 | 12.08 |

**Year 2021**

| Roadways | Number of Fatalities (5-yr avg) | Number of Serious Injuries (5-yr avg) | Fatality Rate (per HMVMT) (5-yr avg) | Serious Injury Rate (per HMVMT) (5-yr avg) |
|---|---|---|---|---|
| State Highway Agency | 41.8 | 134.2 | | |
| County Highway Agency | | | | |
| Town or Township Highway Agency | 9 | 55.6 | | |
| City or Municipal Highway Agency | | | | |
| State Park, Forest, or Reservation Agency | | | | |
| Local Park, Forest or Reservation Agency | | | | |
| Other State Agency | | | | |
| Other Local Agency | | | | |
| Private (Other than Railroad) | | | | |
| Railroad | | | | |
| State Toll Authority | | | | |
| Local Toll Authority | | | | |
| Other Public Instrumentality (e.g. Airport, School, University) | | | | |
| Indian Tribe Nation | | | | |

## *Safety Performance Targets*

### Safety Performance Targets

### Calendar Year 2023 Targets *

***Number of Fatalities:63.0***

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

Rhode Island has experienced decreases in fatalities in 2021 and looks to be continuing this decrease in fatalities in 2022. Additionally, the RIDOT is continuing to support behavioral countermeasures and developing low-cost risk-based systemic projects that will target high-risk locations.

### *Number of Serious Injuries:301.0*

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

2021 was the first year in a long time Rhode Island experienced an increase in suspected serious injuries. However, early data for 2022 indicate this increase may be an aberration and Rhode Island will continue to decrease serious injuries through proposed education and enforcement campaigns as well as infrastructure projects.

### *Fatality Rate:0.830*

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

Rhode Island has experienced decreases in fatalities in 2020 and 2021 and looks to be continuing this decrease in fatalities in 2022. RIDOT anticipates the planned safety activities will help counteract potential increases in fatalities which may be correlated with the projected increase in 2022 and 2023 vehicle-miles traveled.

### *Serious Injury Rate:3.944*

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

The projected decrease in serious injuries and increase in vehicle-miles traveled will result in a reduction in the serious injury rate in Rhode Island.

### *Total Number of Non-Motorized Fatalities and Serious Injuries:72.0*

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

Rhode Island has experienced notable fluctuations in non-motorist fatalities and serious injuries. However, recent years have pointed towards small, steady reductions in these injuries.

Attached is the FFY 2023 Safety Performance Measure Target Setting Memo.

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

RIDOT Safety, Office of Highway Safety, Office of Performance Management, FHWA, and Statewide Planning are all involved in the target setting process. Other safety stakeholders, such as AAA, Growth Smart RI, etc., are also involved to some extent. See attached memo that details the 2023 target setting process.

## Does the State want to report additional optional targets?

No

### Describe progress toward meeting the State's 2022 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

| PERFORMANCE MEASURES | TARGETS | ACTUALS |
|---|---|---|
| **Number of Fatalities** | 69.0 | 66.0 |
| **Number of Serious Injuries** | 309.0 | 305.8 |
| **Fatality Rate** | 0.890 | 0.867 |
| **Serious Injury Rate** | 3.970 | 3.970 |
| **Non-Motorized Fatalities and Serious Injuries** | 79.0 | 77.6 |

The preliminary totals for Rhode Island's 2021 safety performance measures are 66 fatalities, 306 serious injuries, and 78 non-motorized fatalities and serious injuries. According to FHWA Highway Performance Monitoring System (HPMS) monthly reports, the total VMT for 2021 results in rates of 0.87 fatalities and 3.97 serious injuries per hundred million VMT.

Based on this info, Rhode Island will meet all of the State's 5 safety performance targets. Rhode Island does not anticipate any transfers from HSIP.

The spike in fatalities in 2020 impacted the Fatal, Fatal Rate, and partially effected the Non-Motorized performance measures. However in 2021, the downward trend have have seen the past 10 years have resumed.

## *Applicability of Special Rules*

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

Yes

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

| PERFORMANCE MEASURES | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Number of Older Driver and Pedestrian Fatalities | 18 | 5 | 16 | 12 | 8 | 10 | 8 |
| Number of Older Driver and Pedestrian Serious Injuries | 43 | 42 | 50 | 40 | 45 | 46 | 35 |

# Evaluation

## *Program Effectiveness*

### How does the State measure effectiveness of the HSIP?

- Change in fatalities and serious injuries
- Lives saved

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

As shown in the Progress in Achieving Safety Performance Targets section, RIDOT has see a continuous reduction, over a 5 year average, in serious injuries.

RIDOT tracks crash reductions for all of there HSIP projects. RIDOT uses this data to make changes to a specific improvements if desired results are not achieved.

We have seen reductions in the systemic programs such as Pedestrians, Road Diets, Horizontal Curves, Wrong Way Driving. We have also seen direct benefits in spot projects for roadway departure and intersections. We continue to tackle the systemic programs with the goal of 100% statewide.

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

- # miles improved by HSIP
- # RSAs completed
- HSIP Obligations
- More systemic programs

HSIP obligations have increased over the past 10 years and RIDOT is projected to obligate 100% of the HSIP funds in the STIP (10 year plan).

RSAs are a driver for safety improvements and RIDOT has a streamlined process in place to conduct RSAs and implement the findings in with maintenance forces, ID/IQ contract, or bundle with capitol projects.

RIDOT has expanded its HSIP to have 4 systemic sun-programs: STEP, Horizontal Curves, Signalized Intersections, and Lane Departure: Tangent Sections. RIDOT is developing an Unsignalized Intersection systemic analysis i FY23.

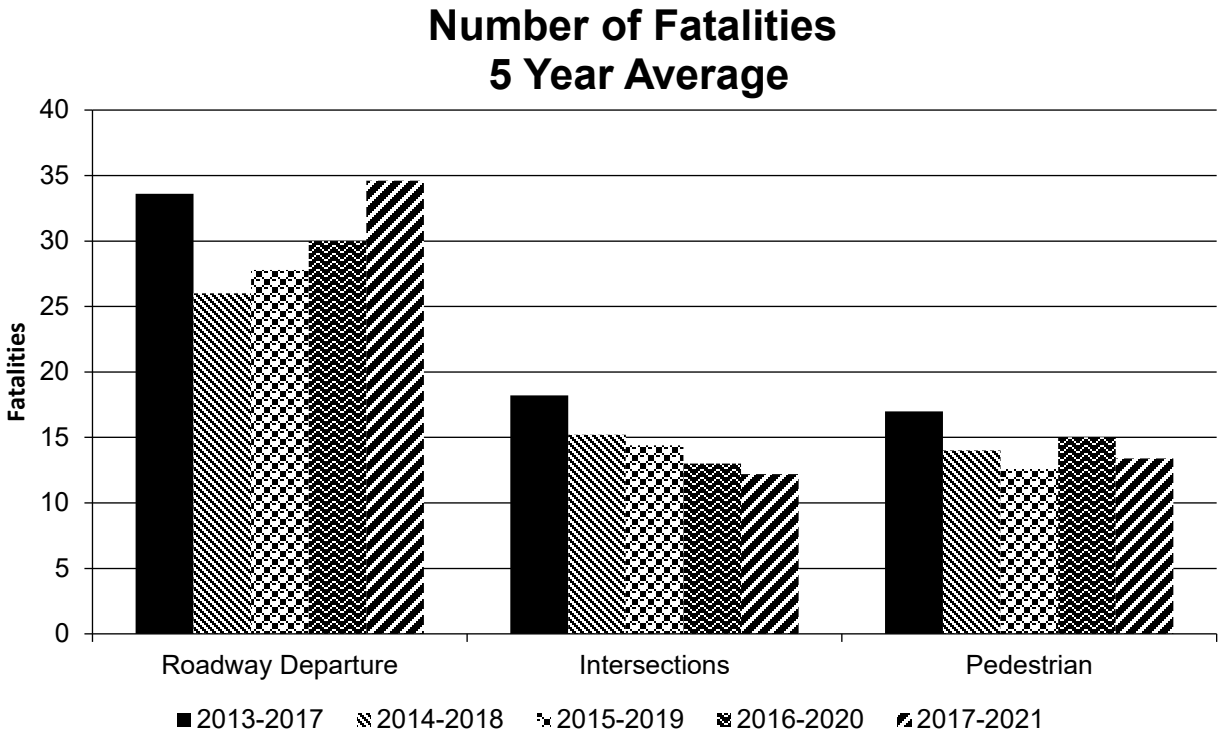
We fell that the shift to primarily all systemic projects will help reduce fatal and serious injury related crashes proactively statewide.

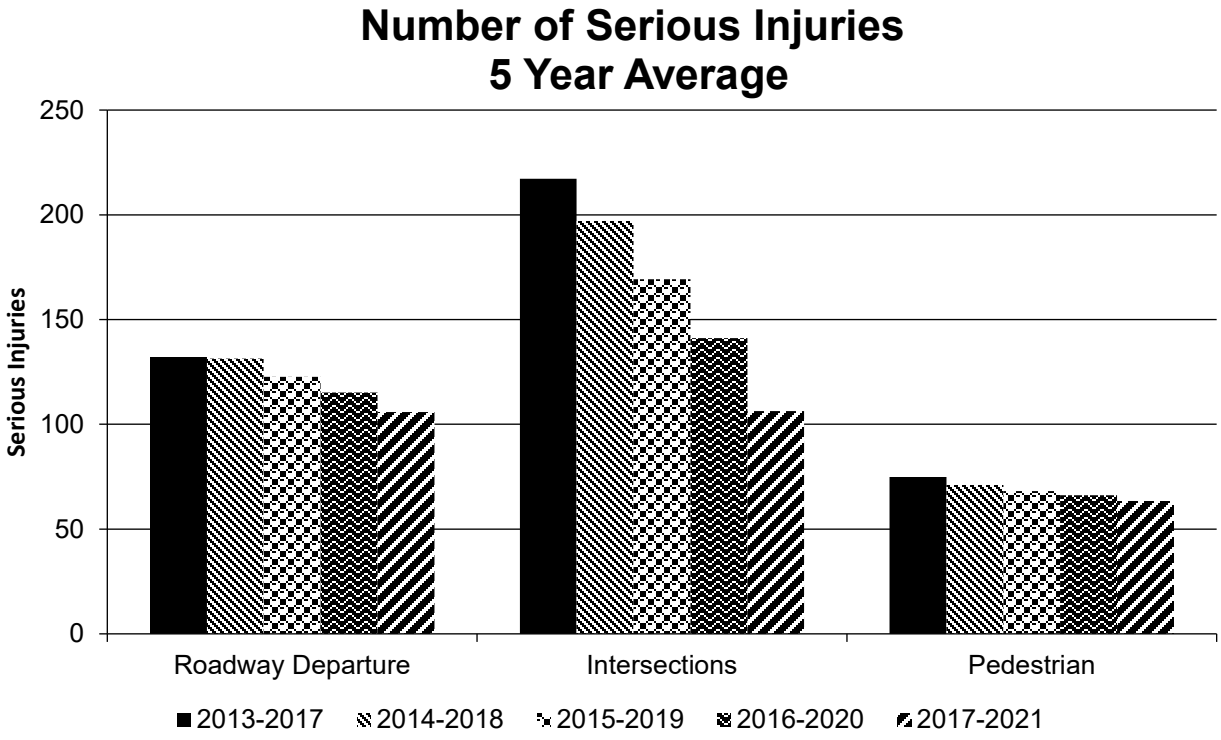
## *Effectiveness of Groupings or Similar Types of Improvements*

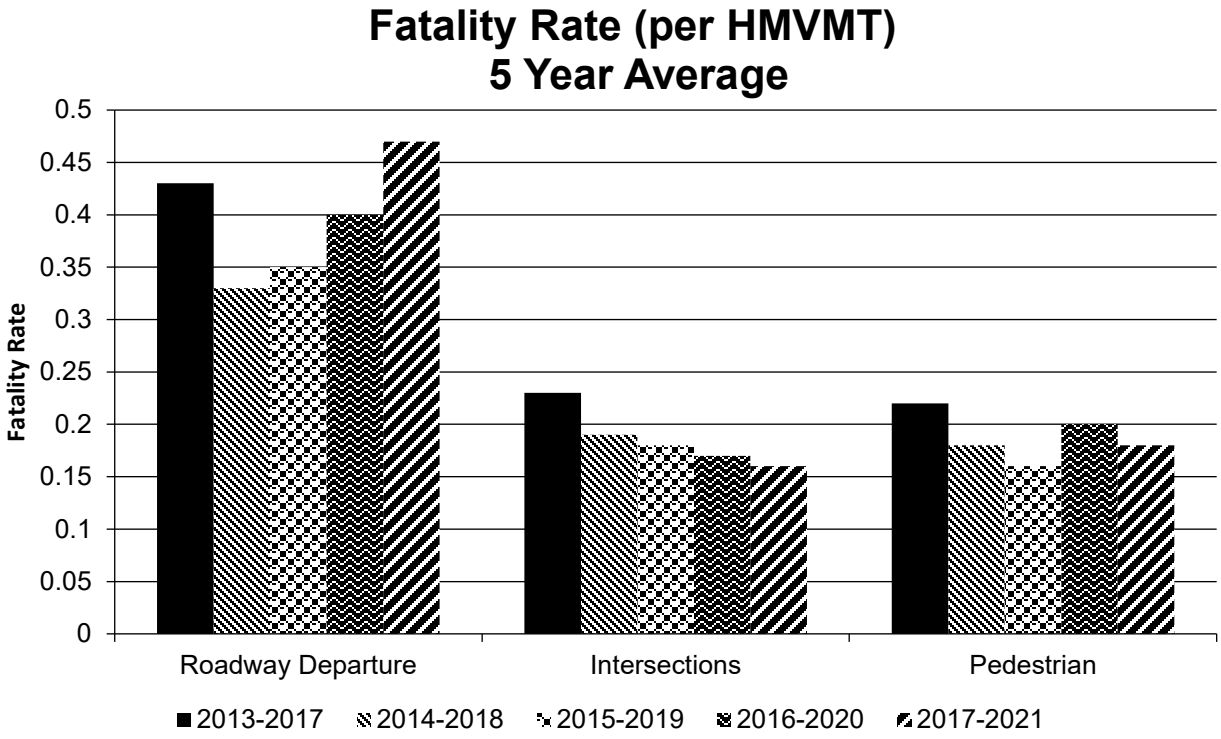
### Present and describe trends in SHSP emphasis area performance measures.

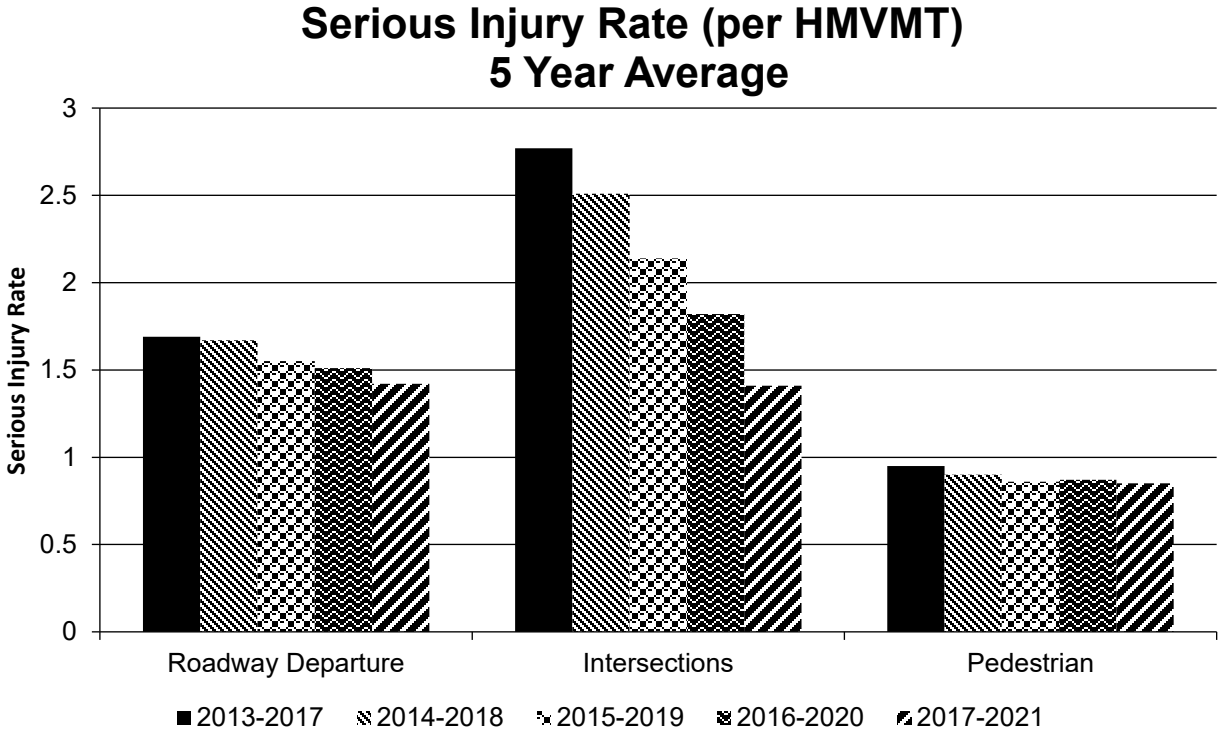
**Year 2021**

| 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) | Other 1 | Other 2 | Other 3 |
|---|---|---|---|---|---|---|---|---|
| Roadway Departure | Run-off-road | 34.6 | 105.8 | 0.47 | 1.42 | 0 | 0 | 0 |
| Intersections | Angle | 12.2 | 106.4 | 0.16 | 1.41 | 0 | 0 | 0 |
| Pedestrian | Vehicle/pedestrian | 13.4 | 63.4 | 0.18 | 0.85 | 0 | 0 | 0 |


Number of Fatalities
5 Year Average
Fatalities
40
35
30
25
20
15
10
5
0
Roadway Departure
Intersections
Pedestrian
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021


Number of Serious Injuries
5 Year Average
Serious Injuries
250
200
150
100
50
0
Roadway Departure
Intersections
Pedestrian
2013-2017
2014-2018
2015-2019
2016-2020
2017-2021




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

Yes

## Please provide the following summary information for each countermeasure effectiveness evaluation.

| | |
|---|---|
| **CounterMeasures:** | Road Diets |
| **Description:** | |
| **Target Crash Type:** | All |
| **Number of Installations:** | 17 |
| **Number of Installations:** | 17 |
| **Miles Treated:** | |
| **Years Before:** | 5 |
| **Years After:** | 5 |
| **Methodology:** | Regression cross-section |
| **Results:** | 29% reduction in all crash severities; 37% reduction in fatal and injury crashes |

File Name: Final Road Diet CMF Report.pdf

| | |
|---|---|
| **CounterMeasures:** | High Friction Surface Treatments |
| **Description:** | |
| **Target Crash Type:** | Run-off-road |
| **Number of Installations:** | 15 |
| **Number of Installations:** | 15 |
| **Miles Treated:** | |
| **Years Before:** | 5 |
| **Years After:** | 5 |
| **Methodology:** | Regression cross-section |
| **Results:** | 50% reduction in all crash severities |

File Name: Hyperlink

## *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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Statewide | Urban Principal Arterial (UPA) - Interstate | Advanced technology and ITS | Wrong-way Driving Detection System | 16.00 | 11.00 | 3.00 | | 6.00 | 4.00 | | | 25.00 | 15.00 | 5.0 |

## Compliance Assessment

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

08/04/2022

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

From: 2022 To: 2027

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

2027

Attached is the official SHSP acceptance letter from FHWA to RIDOT.

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

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

| ROAD TYPE | *MIRE NAME (MIRE NO.) | NON LOCAL PAVED ROADS - SEGMENT | | NON LOCAL PAVED ROADS - INTERSECTION | | NON LOCAL PAVED ROADS - RAMPS | | LOCAL PAVED ROADS | | UNPAVED ROADS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE |
| ROADWAY SEGMENT | Segment Identifier (12) [12] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | Route Number (8) [8] | 100 | 100 | | | | | | | | |
| | Route/Street Name (9) [9] | 100 | 65 | | | | | | | | |
| | Federal Aid/Route Type (21) [21] | 45 | 10 | | | | | | | | |
| | Rural/Urban Designation (20) [20] | 100 | 100 | | | | | 100 | 100 | | |
| | Surface Type (23) [24] | 100 | 100 | | | | | 100 | 100 | | |
| | Begin Point Segment Descriptor (10) [10] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | End Point Segment Descriptor (11) [11] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | Segment Length (13) [13] | 100 | 100 | | | | | | | | |
| | Direction of Inventory (18) [18] | 100 | 100 | | | | | | | | |

| ROAD TYPE | *MIRE NAME (MIRE NO.) | NON LOCAL PAVED ROADS - SEGMENT | | NON LOCAL PAVED ROADS - INTERSECTION | | NON LOCAL PAVED ROADS - RAMPS | | LOCAL PAVED ROADS | | UNPAVED ROADS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE |
| | Functional Class (19) [19] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | Median Type (54) [55] | 100 | 100 | | | | | | | | |
| | Access Control (22) [23] | 85 | 44 | | | | | | | | |
| | One/Two Way Operations (91) [93] | 100 | 100 | | | | | | | | |
| | Number of Through Lanes (31) [32] | 100 | 91 | | | | | 100 | 100 | | |
| | Average Annual Daily Traffic (79) [81] | | | | | | | | | | |
| | AADT Year (80) [82] | | | | | | | | | | |
| | Type of Governmental Ownership (4) [4] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| **INTERSECTION** | Unique Junction Identifier (120) [110] | | | 100 | | | | | | | |
| | Location Identifier for Road 1 Crossing Point (122) [112] | | | 100 | | | | | | | |
| | Location Identifier for Road 2 Crossing Point (123) [113] | | | 100 | | | | | | | |
| | Intersection/Junction Geometry (126) [116] | | | 90 | | | | | | | |
| | Intersection/Junction Traffic Control (131) [131] | | | 90 | | | | | | | |
| | AADT for Each Intersecting Road (79) [81] | | | 25 | | | | | | | |
| | AADT Year (80) [82] | | | 50 | | | | | | | |
| | Unique Approach Identifier (139) [129] | | | 100 | | | | | | | |
| **INTERCHANGE/RAMP** | Unique Interchange Identifier (178) [168] | | | | | 100 | | | | | |

| ROAD TYPE | *MIRE NAME (MIRE NO.) | NON LOCAL PAVED ROADS - SEGMENT | | NON LOCAL PAVED ROADS - INTERSECTION | | NON LOCAL PAVED ROADS - RAMPS | | LOCAL PAVED ROADS | | UNPAVED ROADS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE |
| | Location Identifier for Roadway at Beginning of Ramp Terminal (197) [187] | | | | | 100 | | | | | |
| | Location Identifier for Roadway at Ending Ramp Terminal (201) [191] | | | | | 100 | | | | | |
| | Ramp Length (187) [177] | | | | | 100 | | | | | |
| | Roadway Type at Beginning of Ramp Terminal (195) [185] | | | | | 100 | | | | | |
| | Roadway Type at End Ramp Terminal (199) [189] | | | | | 100 | | | | | |
| | Interchange Type (182) [172] | | | | | 100 | | | | | |
| | Ramp AADT (191) [181] | | | | | | | | | | |
| | Year of Ramp AADT (192) [182] | | | | | | | | | | |
| | Functional Class (19) [19] | | | | | 100 | 100 | | | | |
| | Type of Governmental Ownership (4) [4] | | | | | 100 | 100 | | | | |
| **Totals (Average Percent Complete):** | | **85.00** | **78.33** | **81.88** | **0.00** | **81.82** | **18.18** | **88.89** | **88.89** | **100.00** | **100.00** |

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

Preliminary numbers. Will be updated at part of final report once RIDOT completed the ongoing MIRE update slated to be wrap up in 1-2 weeks.

### 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.

RIDOT is applying for various grants to complete the collection by 2026. RIDOT collected most of the data in 2016 as part of the MIRE data collection effort, however local data for some elements were not collected as part of this effort due to funding. Also, traffic data is being collected under a standalone effort.

## Optional Attachments

Program Structure:

HSIP Manual_May8_FINAL.pdf
Project Implementation:

Safety Performance:

Targets_2023_summary_07202022.pdf
Evaluation:

Final Road Diet CMF Report.pdf
Compliance Assessment:

8-4-2022 LTR RI SHSP Process Aproval Letter to Dir. Alviti.pdf

# 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.