RHODE ISLAND
STRATEGIC HIGHWAY SAFETY PLAN
2023-2027

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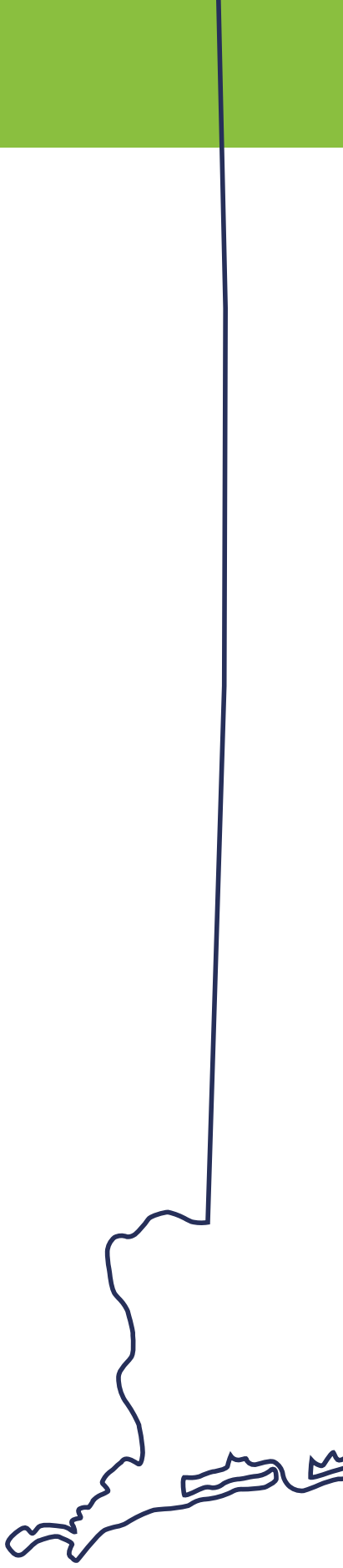
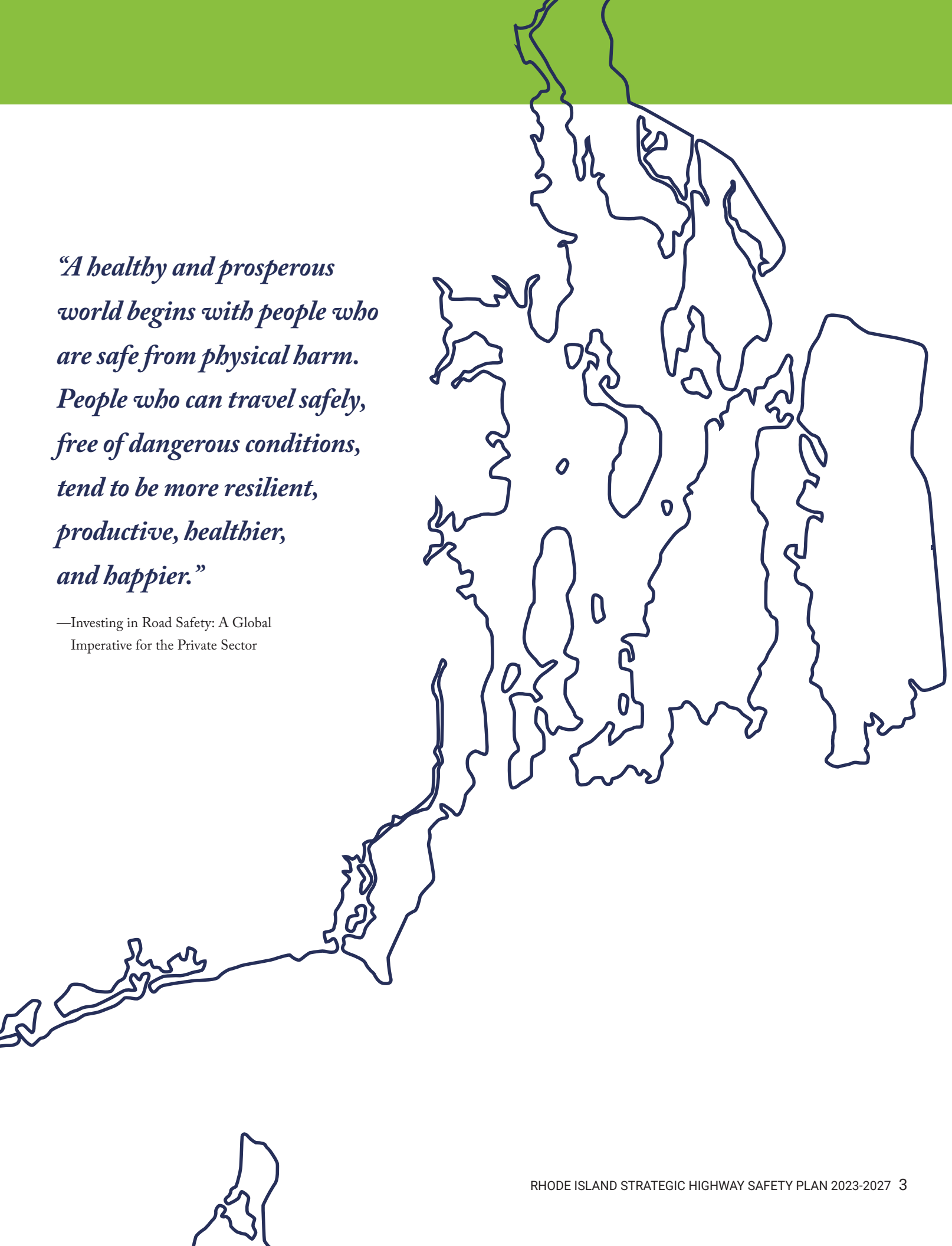


"A healthy and prosperous world begins with people who are safe from physical harm. People who can travel safely, free of dangerous conditions, tend to be more resilient, productive, healthier, and happier."

—Investing in Road Safety: A Global Imperative for the Private Sector



DIRECTOR'S MESSAGE

I am pleased to present the 2023 update to Rhode Island's Strategic Highway Safety Plan (SHSP), which builds upon our State's commitment to **improving safety for all roadway users by bringing fatalities to ZERO**.

This updated Plan is the fourth iteration of the SHSP, which was first released 15 years ago in 2007. We are motivated by the downward trend of overall crash severity since 2011 and specifically serious injuries' five-year rolling averages. In the five years since the 2017 Plan, our country experienced the hardships of the COVID pandemic, with one effect being a rise in roadway fatalities nationwide. Rhode Island was not immune to this trend and saw slight increases to its five-year rolling average fatalities in 2020 and 2021.

Equipped with these data trends, a diverse group of safety stakeholders—from local, regional, state, and federal agencies and organizations across the state—met over several months to collaborate on the development of this Plan. The stakeholders evaluated crash trends, identified emphasis areas, and established strategies to reduce fatalities and serious injuries for all roadway users. Out of these meetings emerged four themes to guide the implementation of the 2023 Plan, which include the continued use of effective countermeasures, implementing the Safe System approach, enhancing data and technological capabilities, and providing an equitable roadway network for all users.

We value the work performed by our partners and are thankful for their contributions. This Plan is a call to action and now we ask you—the residents of Rhode Island to share in our vision of achieving ZERO roadway fatalities. Together, we can sustain a positive safety culture where even one traffic death or serious injury is unacceptable.

Peter Alviti, Jr. P.E.

Director

Rhode Island Department of Transportation

ACKNOWLEDGEMENTS

The 2023-2027 Rhode Island Strategic Highway Safety Plan (SHSP) was developed through the contributions and collaboration of safety stakeholders from across the state. Partners representing a wide range of organizations and agencies developed strategies and actions to reduce crash severity and the resulting fatalities and serious injuries. These partners are committed to working with the state to implement the SHSP for the next 5 years, and beyond.

- AAA Northeast
- AARP – Rhode Island
- American Traffic Safety Services Association (ATSSA)
- Bike Newport
- City of Providence
- City of Pawtucket
- Community College of Rhode Island
- Federal Highway Administration
- Federal Motor Carrier Safety Administration
- Mothers Against Drunk Driving
- National Highway Traffic Safety Administration (NHTSA)
- Providence Streets Coalition
- Rhode Island Bicycle Coalition (RI Bike)
- Rhode Island Department of Behavioral Healthcare, Developmental Disabilities & Hospitals (RI BHDDH)
- Rhode Island Courts
- Rhode Island Department of Corrections (RI DOC)
- Rhode Island Department of Education
- Rhode Island Department of Health (RI DOH)
- Rhode Island Department of Transportation (RIDOT)
- Rhode Island Department of Motor Vehicles (RI DMV)
- Rhode Island Division of Statewide Planning
- Rhode Island Hospital/Lifespan
- Rhode Island Hospitality Association
- Rhode Island Office for the Aging
- Rhode Island Office of the Attorney General
- Rhode Island Office of EMS (RIOEMS)
- Rhode Island Office of Management and Budget
- Rhode Island Office on Highway Safety (RI OHS)
- Rhode Island Police Chiefs Association (RIPCA)
- Rhode Island Prevention Resource Center
- Rhode Island Public Transit Authority (RIPTA)
- Rhode Island State Police (RISP)
- Rhode Island Student Assistance Services (RISAS)
- Rhode Island Traffic Tribunal
- Rhode Island Turnpike and Bridge Authority
- Town of Coventry
- Town of Portsmouth
- Town of South Kingstown
- Town of Narragansett
- Visit Rhode Island
- Young Voices

ACRONYMS

4Es	Engineering, Education, Enforcement, and Emergency Services
AAA	American Automobile Association
BHDDH	Rhode Island Department of Behavioral Healthcare, Developmental Disabilities & Hospitals
BAC	Blood Alcohol Concentration
CCRI	Community College of Rhode Island
CMF	Crash Modification Factor
CPS	Child Passenger Safety
DBR	Department of Business Regulation
DMV	Department of Motor Vehicles
DRE	Drug Recognition Expert
DUI	Driving Under the Influence
EMS	Emergency Medical Services
FHWA	Federal Highway Administration
GDL	Graduated Driver Licensing
HRRR	High Risk Rural Roads
HSIP	Highway Safety Improvement Program
HSP	Highway Safety Plan
IIHS	Insurance Institute for Highway Safety
MIRE	Model Inventory of Roadway Elements
MMUCC	Model Minimum Uniform Crash Criteria
NHTSA	National Highway Traffic Safety Administration
OHS	Office on Highway Safety
PSC	Proven Safety Countermeasure
RIDOT	Rhode Island Department of Transportation
SHSP	Strategic Highway Safety Plan
SPF	Safety Performance Function
SSC	Speed Safety Cameras
STIP	State Transportation Improvement Program
TIM	Traffic Incident Management
VSL	Variable Speed Limit

VISION

Leverage partnerships and promote equity to bring roadway deaths and serious injuries TO ZERO for all users through safety countermeasures, continuous education, and a positive safety culture.

MISSION

Achieve the vision of bringing deaths TO ZERO through a shared responsibility between SHSP partners and the community.

GOAL

Reduce fatalities and serious injuries 25% by 2027, moving TO ZERO by 2050.

INTRODUCTION

HISTORY OF THE PLAN

The Rhode Island Strategic Highway Safety 2023 Plan (SHSP) provides a road map to improving transportation safety in our state. The 2023 Plan guides the Rhode Island Highway Safety Improvement Program (HSIP) and the Highway Safety Plan (HSP), two core federal funded programs directed at reducing fatalities and serious injuries on all public roads.

The 2023 Plan is an update to the 2017 SHSP and is the fourth iteration of the Plan. The Rhode Island Office on Highway Safety (OHS) first developed the SHSP in 2007 and has made updates every 5 years - 2012, 2017, and 2022. With each update, the state added more Emphasis Areas, expanded use of data-driven decision-making, and reached out to more partners. The 2023 Plan is the first 5-year update under recent federal regulations.

Since the last plan update, Rhode Island observed 5-year average traffic fatalities grow slightly, which was consistent with national averages. There was an increase in fatalities in 2017 just as the plan was being implemented, and then a notable increase in 2020 during the COVID pandemic, marking the last five-years as overall increasing fatalities in the state. Throughout this same period, serious injury crashes consistently trended down, with reductions in 5-year average serious injuries each year back to 2011. Rhode Island strives to reduce fatalities to zero and is motivated by the success of recent decreases in serious injury crashes and overall crash severity. As of June 30th, 2022 the State of Rhode Island has seen 14 fatalities, which is substantially lower than recent years and a positive sign for the remainder of the year.

Achieving our transportation safety goals requires partnerships across agencies, disciplines, and communities. During the 2017 SHSP, collaboration among stakeholders resulted in many valuable partnerships that continued through implementation. This 2023 Plan continues that momentum including local, regional, and statewide safety partner perspectives. The SHSP establishes a statewide vision, goals, and Emphasis Areas to focus implementation efforts for safety programs. Together, safety partners identified infrastructure and behavioral countermeasures for reducing fatalities and serious injuries for all users in our state's transportation network.

ACCOMPLISHMENTS

The 2017 SHSP detailed 10 safety Emphasis Areas with the greatest opportunity to achieve the SHSP goals, which included:

1. Impaired Driving
2. Occupant Protection
3. Intersection & Run-off-the-Road
4. Speeding
5. Vulnerable Users (Bicyclists, Pedestrians, and Motorcyclists)
6. Aging Drivers
7. Young Drivers
8. Distracted Driving
9. Traffic Incident Management
10. Data

Rhode Island safety stakeholders carried out many actions since the release of the 2017 SHSP to improve transportation safety. Specifically, efforts included:

Media and Education

» Rhode Island developed and distributed many successful media campaigns across various media venues. These included National Highway Traffic Safety Administration (NHTSA) campaigns like Click It or Ticket, and others that were developed locally, such as RI Waves to encourage visibility and acknowledgment between drivers and pedestrians and cyclists. A key media success over the prior SHSP was the Ripple Effect Campaign, which shared real stories from first responders, law enforcement, families, and friends who have been impacted by traffic fatalities attributed to impaired driving. This successful campaign won four New England Emmys.

» Through an effort led by the American Automobile Association (AAA) Northeast, thousands of health students in Rhode Island participated in an educational presentation about the dangers of marijuana and driving. This resulted in a program that was both educational for students and highly informative for instructors as Rhode Island moves towards the legalization of marijuana, similar to nearby states.

» OHS offered the "Rhode to Bike Safety" Program to approximately 100 fifth grade students around the state and created videos of the program modules to increase the reach of the program to multiple Rhode Island elementary schools via health classes.

Source: riwaves.org

Source: VHB

Data & Engineering

» The Rhode Island Police Chiefs' Association initiated the development of a Records Management System, a database that compiles data across agencies to expand collective knowledge and understanding of crash trends in Rhode Island. At this time, many data-sharing documents have been put in place to support tracking of impaired driving fatalities and inform countermeasures.

» The HSIP implemented $75M in funds over 25 projects. These projects were developed with partner collaboration through roadway safety assessments. This effort also included the development of a crash modification factor (CMF) for road diets and the implementation of five road diet projects.

» RIDOT developed several geographic information system (GIS)-based infrastructure inventories to identify safety challenges and is currently working on implementing systemic project improvements based on the findings of the inventories. Infrastructure programs include countermeasures from the Federal Highway Administration's (FHWA) Safe Transportation for Every Pedestrian (STEP) program, horizontal curves, and traffic signals.

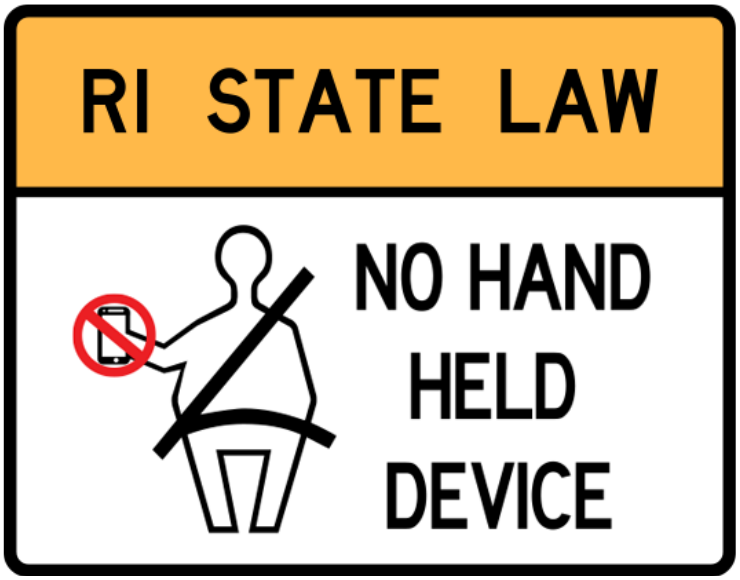
Enforcement & Legislation

» In 2021, Rhode Island recorded its highest seatbelt use rate of 89.4%. This is due to involvement and support of community leaders and enforcement statewide. Rhode Island looks to maintain and build upon this success with guidance from this updated SHSP.

» The Rhode Island Municipal Police Training Academy continued expansion of law enforcement training programs and officer education. This includes standardized field sobriety testing (SFST) (100 officers); Advanced Roadside Impaired Driving Enforcement (ARIDE) (73 Officers); and drug recognition expert (DRE) (4 Officers) as well as expanded training programs related to marijuana, digital car seat check form training, and development of the Traffic Incident Management (TIM) on-line self-paced training.

» Rhode Island is in the process of updating their crash form to reflect the 5th Edition Model Minimum Uniform Crash Criteria (MMUCC) recommendation. Community law enforcement agencies have implemented training and pilot programs in an effort to unify data statewide.

» In July 2018, the hands-free law (R.I.G.L. § 31-22-31) went into effect in Rhode Island. This law prohibits drivers from holding a device while driving and prohibits minors from using mobile devices in any way while driving.



Partnership

» The OHS continued to expand on a strong base of community and law enforcement partners through strong communication, thoughtful planning, and flexibility in collaboration. The dedication of individuals throughout the state, including those with the Traffic Safety Coalition, continue to bring improvements to transportation safety in Rhode Island.

Source: RIDOT

NEW IN THE 2023 PLAN

The 2023 Plan builds upon the 2017 SHSP framework, and reflects changing trends over the past 5 years. These trends are diverse in nature—most pertinent to the 2023 Plan are the trends in crashes, but it is also critical to understand the multi-faceted nature and trends in contributing factors to crashes, such as road user behavior, infrastructure and the built environment, public health, vulnerabilities of certain travel modes, and roadway safety culture.

KEY THEMES

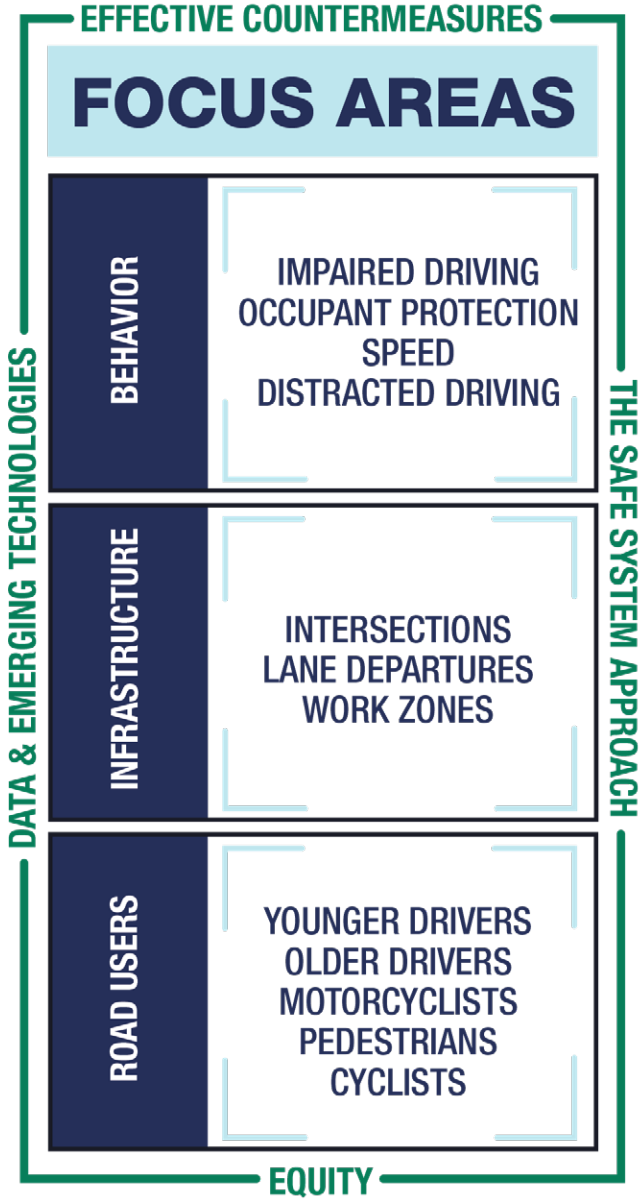
The stakeholder engagement process led the 2023 Plan to adopt four Key Themes. These themes are evident and applicable to all of the Emphasis Areas. These themes will be woven throughout all strategies and actions.

1. Data & Emerging Technologies
2. The Safe System Approach
3. Effective Countermeasures
4. Equity

EMPHASIS AREAS & 4E APPROACH

The 2023 Plan organizes 12 Emphasis Areas into three Focus Areas that share common features. The three Focus Areas are Behavior, Infrastructure, and Road Users.

The 2023 Plan's emphasis on data and technology demonstrates Rhode Island's commitment to improving data and keeping a forward-looking approach. Rhode Island understands that data are the backbone of the 2023 Plan and the roadway safety programs in the state. Data initiatives include linking data sets, obtaining new data sets, evaluating completed projects and safety programs, setting and monitoring performance targets, and project prioritization. These activities will lead to effective and responsible management of the roadway system.



4E Approach

The 4Es of transportation safety are:

Engineering

Education

Enforcement

Emergency Services (EMS)

The 4Es work together to provide a holistic approach to the transportation system and addresses safety at each stage of a crash—before, during, and after. Collaboration between all four areas is critical for the safety performance of a transportation system.

To better align with the widely adopted framework, the 2023 Plan organizes its strategies and actions by the 4Es and Leadership (a carryover from the 2017 SHSP). Rhode Island understands that Leadership is essential for the implementation of the actions in the 2023 Plan. The state's success in establishing dedicated groups that collaborate has supported the objectives of the SHSP and increased understanding between stakeholders.

ORGANIZATION

The 2023 Plan is organized into six sections:

1. **Vision, Mission, and Goal** stated at the beginning of this 2023 Plan provides a clear, performance-based goal for Rhode Island to work toward over the next 5 years and beyond.
2. **Plan Update Process** describes the information gathering steps taken to develop the 2023 Plan, which includes a review of the 2017 SHSP; data collection and analysis; and stakeholder outreach, coordination, and feedback.
3. **Key Themes** lists topics that surfaced across data reviews and outreach efforts that were not isolated to an emphasis area or a single agency. These themes speak to how our safety partners approach challenges and our shared vision for safety in the future.
4. **Emphasis Area Strategies and Actions** document the direction of our partners' plans and intended steps they will take over the next 5 years to reach the 2023 Plan Goal.
5. **Safety Culture** complements the itemized strategies and actions with a description of the safety culture this Plan will work toward.
6. **Implementation** highlights the key steps for the next 5 years.

PLAN UPDATE PROCESS

STAKEHOLDER ENGAGEMENT

Kickoff Workshop

A multidisciplinary group of stakeholders from across Rhode Island met and provided input to the 2023 Plan. Specifically, stakeholders from federal, state, and local agencies, organizations, and advocacy groups assembled to develop the 2023 Plan. The engagement process began with a virtual statewide workshop with nearly 50 attendees from 24 agencies spanning the areas of the 4Es. During the meeting, stakeholders provided updates on accomplishments and challenges within their agencies since the 2017 SHSP. New stakeholders also participated and provided input during the update process. Stakeholders reviewed data trends over the past 10 years and provided feedback on the Emphasis Areas including suggested revisions, additions, and organization of the 2023 Plan. Stakeholders met in virtual breakout rooms during part of the meeting and discussed the vision and crash-reduction goal of the SHSP, as well as, refining the Emphasis Areas.

Working Group Meetings

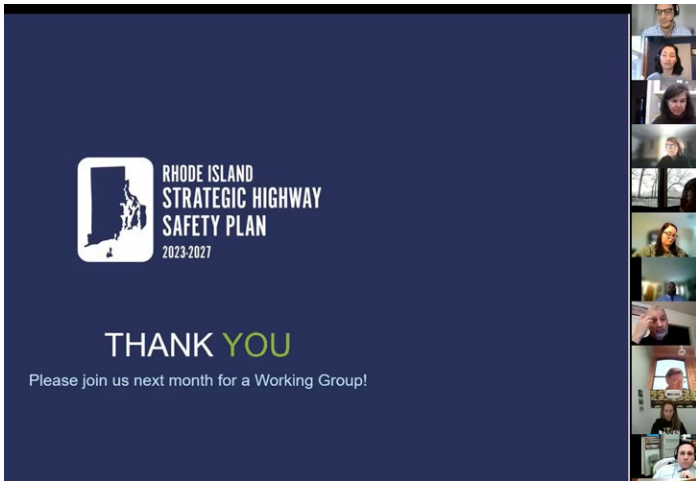
To build on the momentum of the stakeholder kickoff workshop, three working groups met twice over the course of two months to discuss and finalize the strategies and actions in each Emphasis Area. The working groups met as three separate Focus Areas: Behavior, Infrastructure, and Road Users. During the working group meetings, members shared their agency/organization accomplishments since the 2017 SHSP, as well as challenges faced and initiatives to include in the 2023 Plan. Working group meetings provided a valuable opportunity for members to be informed about activities across the state and identify opportunities for support and collaboration.

Stakeholder Feedback

Previous and current SHSP participants provided feedback and evaluated the 2017 SHSP during the stakeholders' kickoff meeting and working group meetings. The stakeholder's feedback informed the 2023 Plan. The following list provides key findings that were incorporated into the 2023 SHSP processes:

- There is strong leadership involvement that provides the political opportunities to support the SHSP in a tangible manner.
- Task Forces have been successful in continuing the conversation on SHSP implementation.
- Data are key. Rhode Island initiated an annual fatalities deep dive report, beginning in 2021 using 2020 data.
- Strategies and actions should be SMART (i.e., specific, measurable, achievable, relevant, and timebound). Having too many strategies and actions in a 5-year plan may not be feasible due to limited resources in staff, funding, and/or time.
- Organize strategies and actions to be more transparent and identify the agencies/organization responsible for implementation and similar/overlapping strategies.
- Getting TO ZERO means adding stakeholders to the process—such as local agencies, EMS personnel, municipal leaders and area hospitals, and expanding data connectivity and, ultimately access for more stakeholders.

Screenshot from 2022 Stakeholder Engagement Meeting.



DATA

The goal of the 2023 Plan is to decrease roadway-related fatalities and serious injuries and reduce crash severities from the 2020 baseline moving to zero deaths in 2050. At the time of the 2017 SHSP, fatalities in Rhode Island were dropping to historic lows with fatalities declining to 45 in 2015 and a lowest 5-year average of 55 in 2016. This is consistent with national and regional trends at that time. In the most recent 5 years, Rhode Island, the region, and the Nation experienced a similar change in trends as fatalities began increasing, particularly in 2020. The 5-year average number of crashes in 2021 was 66, a 20% increase from 2016. Rhode Island experienced an increase in fatality rate as demonstrated by the change in five-year average fatality rate from 0.71 fatalities per 100 million vehicle miles traveled in 2016 to 0.87 in 2021.[1]

While fatalities and fatal rates have increased, serious injuries have declined steadily over the last 5 years. Due to changes in crash definitions and serious injury crash review protocols, the number of reported serious injuries was anticipated to drop in 2017. In addition to this change, the number and rate of serious injuries steadily declined over the recent years, with a small increase in 2021. This trend speaks to efforts to reduce crash severity through systemic infrastructure and comprehensive behavioral activities since the 2017 Plan. Rhode Island has leveraged its small size to make meaningful improvements.

The crash data presented in this document are provided through coordination with the Rhode Island Department of Transportation using their Online System Crash Analysis Reporting (OSCAR) Tool. Fatality and fatal crash data for 2012-2020 are provided by the NHTSA Fatality Analysis Reporting System (FARS) database[1]. All 2021 data are preliminary at the time of publication.

The data reviewed reveal key trends that can inform future safety decision-making. The following pages highlight some of the key observations and trends for fatalities and serious injuries overall and within the 12 Emphasis Areas adopted by this SHSP. The Emphasis Areas are represented by the following symbols:


Intersections


Lane Departures


Work Zones


Distracted Driving


Occupant Protection


Impaired Driving


Speed


Younger Drivers


Older Drivers

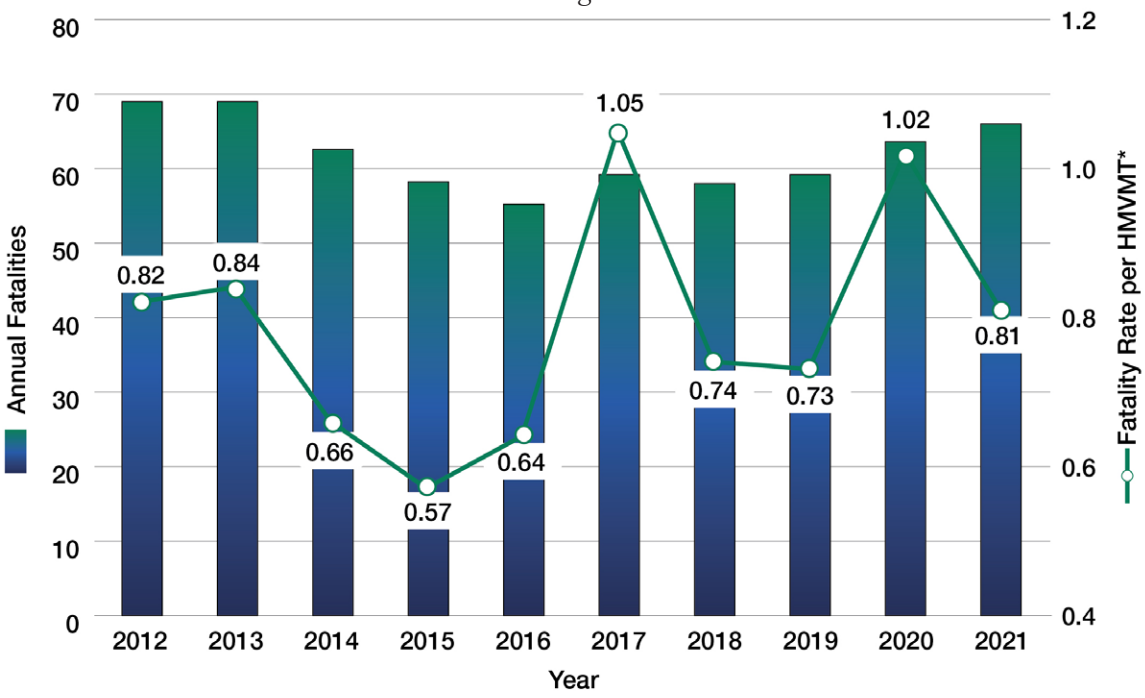

Motorcyclists


Pedestrians

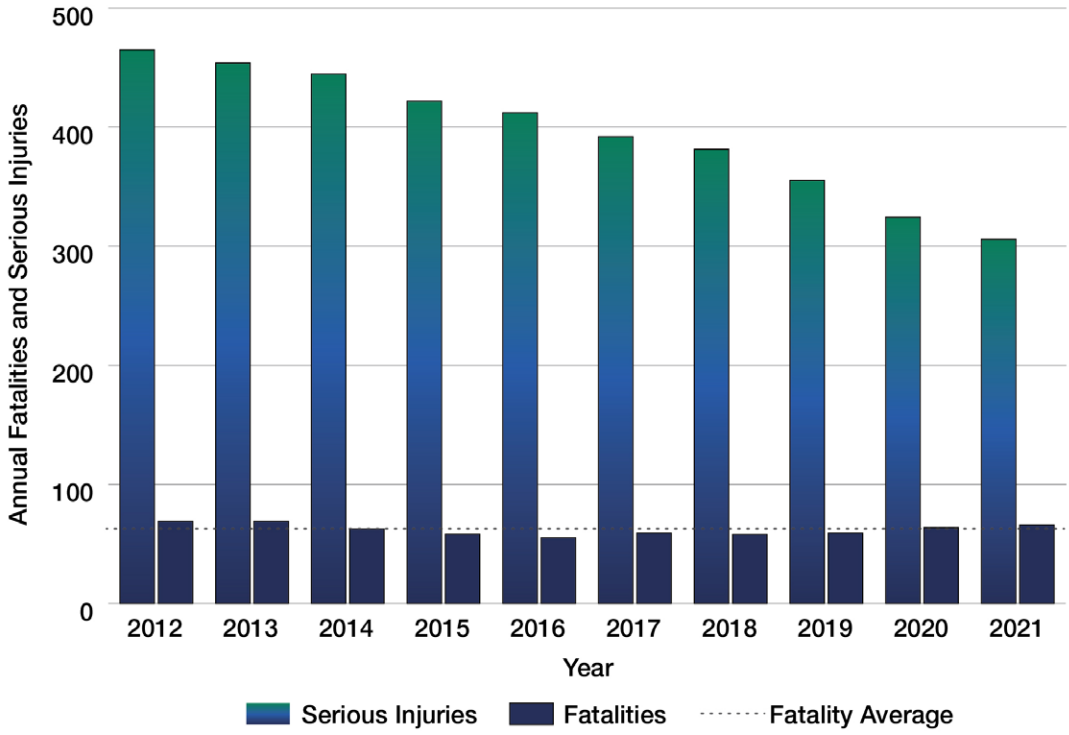

Cyclists

[1] All 2021 observed fatalities and serious injuries are considered preliminary at the time of the 2023 Plan. https://www-fars.nhtsa.dot.gov/Main/index.aspx

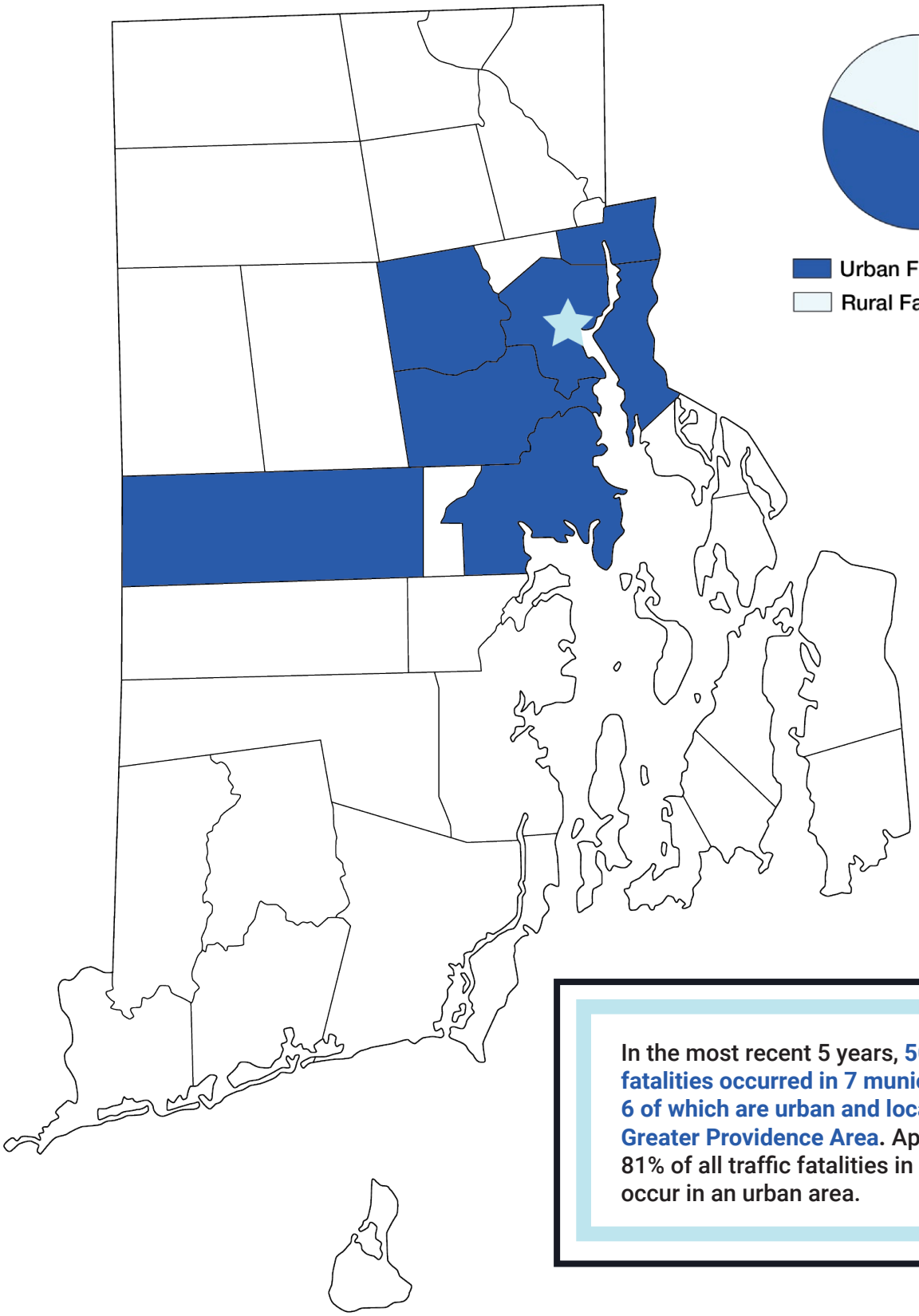
10-Year Average Fatalities

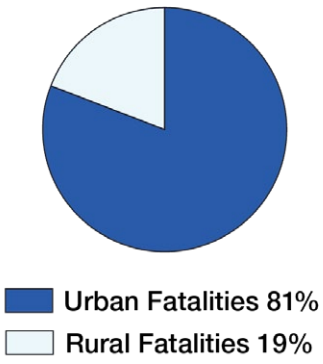


10-Year Average Fatalities and Serious Injuries



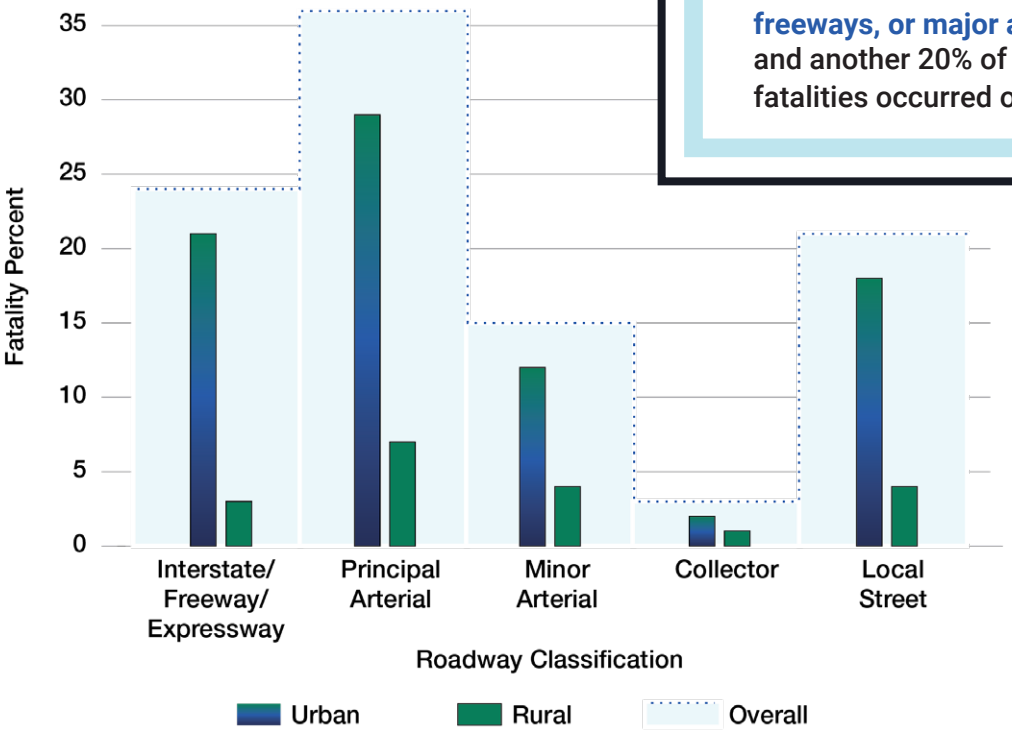
*hundred million vehicle miles traveled



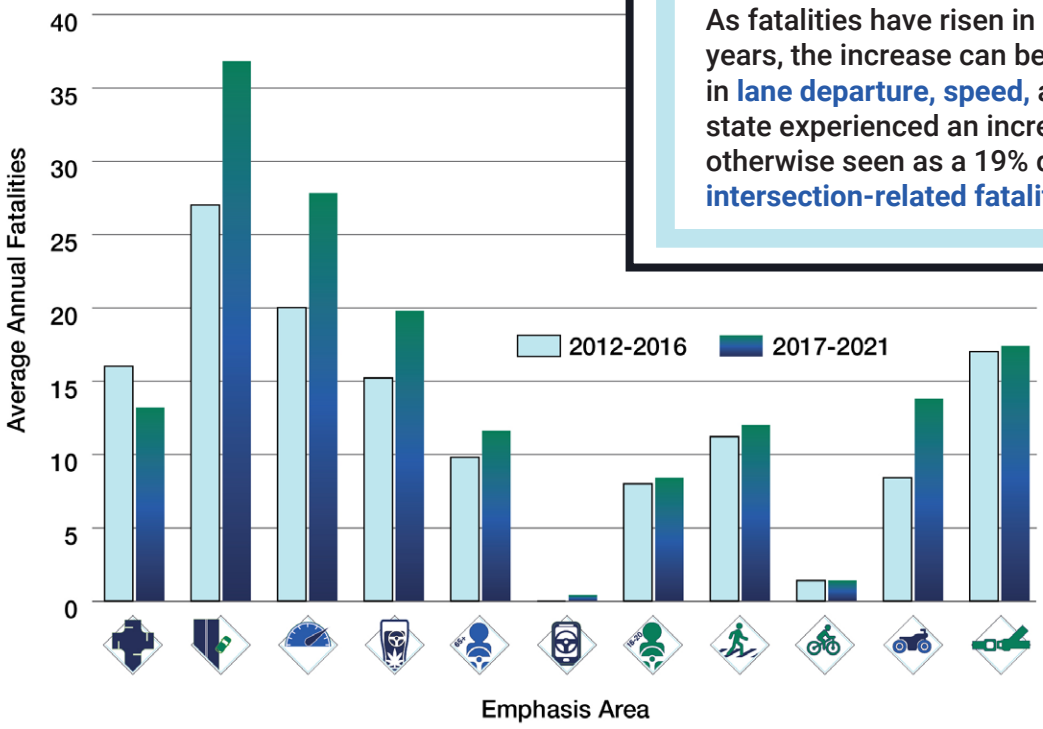


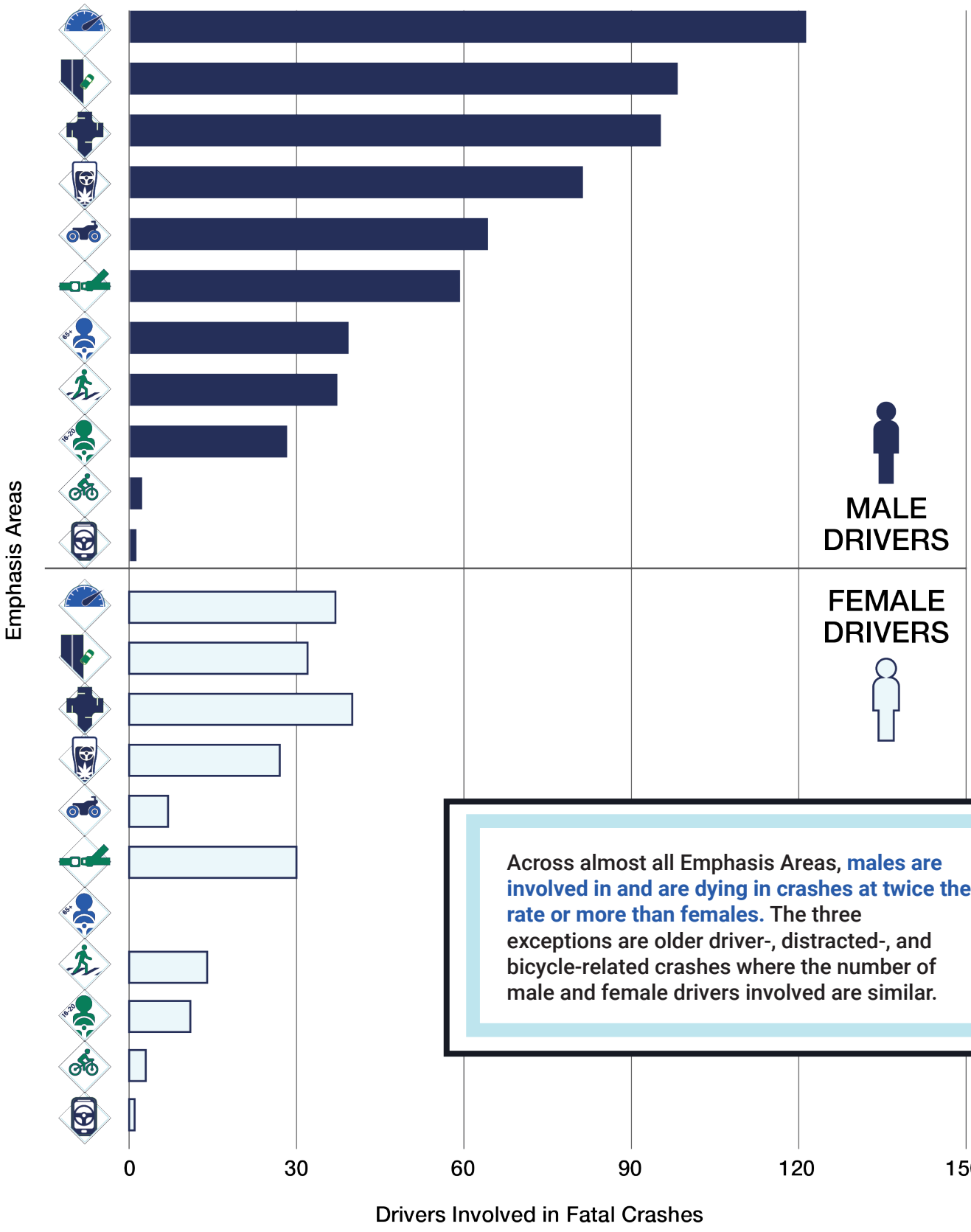
In the most recent 5 years, **50% of all traffic fatalities occurred in 7 municipalities, 6 of which are urban and located in the Greater Providence Area**. Approximately 81% of all traffic fatalities in Rhode Island occur in an urban area.

Approximately **50% of crashes occurred on interstates, freeways, or major arterials** and another 20% of traffic fatalities occurred on local streets.



As fatalities have risen in Rhode Island in the past 5 years, the increase can be most connected to changes in **lane departure, speed,** and **motorcycle fatalities**. The state experienced an increase in **3 lives saved a year,** otherwise seen as a 19% decrease in the annual average **intersection-related fatalities.**




Emphasis Areas
MALE DRIVERS
FEMALE DRIVERS
0
30
60
90
120
150
Drivers Involved in Fatal Crashes
Across almost all Emphasis Areas, males are involved in and are dying in crashes at twice the rate or more than females. The three exceptions are older driver-, distracted-, and bicycle-related crashes where the number of male and female drivers involved are similar.

Overlap

When reviewing crashes, including fatality and serious injury crashes, it is important to understand the range of factors that result in that event. The Emphasis Areas this plan adopts represent several different factors that lead to a serious crash. Oftentimes, more than one factor (i.e., emphasis area) contributes to a crash and may cause increased severity in the crash outcome. Common overlaps between Emphasis Areas will be discussed in further detail throughout the Plan.

Key observations about overlaps between Emphasis Areas:

- Impaired Driving is a co-factor in many of the state's fatalities.
- Both in Rhode Island and nationally, there has been an observed increase in risk-taking behavior, which is evident in the fatal crashes in the most recent 5 years. There are increasing overlaps between speed, impaired driving, unbelted fatalities, and unhelmeted motorcycle fatalities in various combinations. Often, such crashes are also overlapping with lane departure.
- There is an increasing occurrence of overlaps between non-motorist (pedestrian and cyclist) fatalities and speed-related fatalities.
- Increasing trends in risk-taking behaviors have led to increasing overlaps between unbelted, speed, and impairment fatalities.
- There is an increasing overlap between younger driver and unbelted fatalities.

Source: Rhode Island Commerce/Visit Rhode Island

KEY THEMES

This plan has four Key Themes identified during the 2023 Plan development. These Key Themes support the 2023 Plan's Vision, Mission, and Goal across all Emphasis Areas.

1. **Data and Future Technologies** – Implement a data-driven process within the transportation safety decision-making process that prioritizes funding projects and activities that can provide the greatest improvement to the areas with the greatest need for safety.
2. **The Safe System Approach** – Apply FHWA's approach to eliminate fatal and serious injuries for all road users through a holistic view of the roadway system.
3. **Effective Countermeasures** – Implement proven and effective infrastructure and behavioral countermeasures that reduce fatalities and serious injuries.
4. **Equity** – Strengthen stakeholders' commitment to equity through safety investments in infrastructure and behavioral initiatives and training.

A data-driven decision-making process will continue to be the backbone of the Rhode Island Safety Program.

DATA AND FUTURE TECHNOLOGIES

A data-driven decision-making process will continue to be the backbone of the Rhode Island Safety Program.

Data-driven decision-making has been, and will continue to be, the foundation of transportation safety investment in Rhode Island. Accurate, timely, complete, and accessible data are crucial. Data are paramount to the creation and successful implementation of safety plans. Rhode Island made several data-related accomplishments during the 2017 SHSP and will continue the momentum while implementing the 2023 SHSP.

Data Integration

Since the 2017 SHSP, RIDOT completed several projects and tasks geared toward integrating existing roadway, traffic, and crash data sources to inform infrastructure investment in systemic safety countermeasures. Over this period, several law enforcement, public health, and transportation agencies have been navigating the process of bringing together data sources from multiple agencies to build a single records management system. This process included identifying a shared database "language" for all agencies, adopting memoranda of understanding, and finding the right champion for this effort. Rhode Island will continue to prioritize sharing and unifying data to enhance understanding of trends and challenges while implementing the 2023 Plan.

Maintaining Data Systems

Rhode Island has improved the completeness and accuracy of many infrastructure and crash databases since the 2017 SHSP. RIDOT staff have reviewed infrastructure data, primarily elements from FHWA's Model Inventory of Roadway Elements (MIRE), for accuracy and have enhanced the data with a wider range of data fields, adding missing elements, and aligning to traffic and crash data. These steps have improved the state's ability to address safety challenges in a systemic and proactive manner. Moving forward, Rhode Island will continue this effort by adding more infrastructure elements but also remaining mindful of the importance of maintaining databases and data governance. Additionally, as new data are collected, Rhode Island will be forward-thinking with its approach to data collection. New technologies and resources can streamline tasks that previously seemed daunting.

Expand the Conversation

Being a small state, Rhode Island has been able to go above and beyond and by conducting detailed investigations of all fatal crashes each year, which include meeting with various partner agencies and completing field reviews of each crash. Though informative, the thankfully low frequency of fatal crashes may not speak clearly to underlying trends. While serious injuries are also tracked and reviewed, they are not as prominently featured in the conversation around improving safety. Expanding the conversation to focus on both fatalities and serious injuries could provide a better understanding of safety trends leading to more-informed decision-making and ultimately a better approach to reducing crashes and crash severity.

Supporting Local Efforts

With 20% of fatalities occurring on roadways classified as local streets, working with local partners is paramount to reducing fatal and serious injury crashes. Local partners include law enforcement, transportation planners, department of public works officials, and municipal officials. Ensuring that our partners at all levels have access to timely and accurate data to make informed decisions remains an important strategy of this SHSP.

Connected and Autonomous Technologies

Investment in data and technology drives safety improvements. Advances in vehicle and infrastructure technology, including safer vehicles, connected and autonomous vehicles, detection and warning systems, and traffic control devices, all contribute to overall roadway safety and support the goal to reach zero fatalities.

Since the 2017 SHSP, Rhode Island embraced the idea of future technology, specifically Connected and Autonomous Vehicles as an opportunity to change transportation in the future. Pilot efforts, such as the Little Roady program, will continue to build the knowledge base for understanding the future of transportation. Rhode Island should continue to embrace such opportunities where they can support the Goal and Mission of this SHSP and other statewide efforts.

Remaining informed and open to the future of transportation will improve the ability of state and local transportation planners to make decisions in short- to long-range applications. This will inform policies, funding, and official planning documents that communicate a vision for the future of the transportation system to the public.

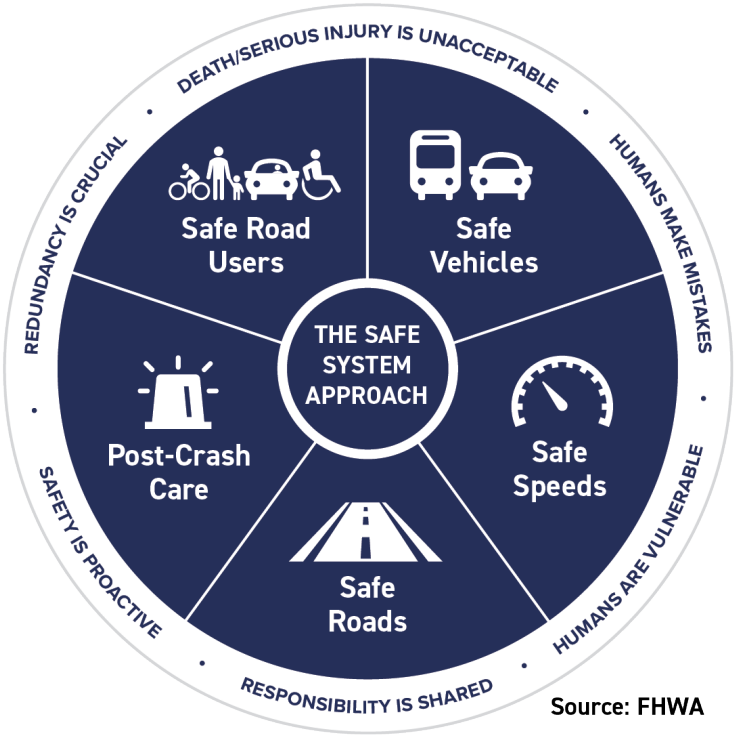
In 2019 RIDOT, through its Transportation Innovation Partnership Program, began a pilot deployment of an autonomous vehicle transit route in Downtown Providence called Little Roady. This route connected Providence Station to Olneyville via the State Offices, Promenade, and Valley Street. Rides in the six-person shuttles were free. This program served as a test demonstrating future transportation options.

SAFE SYSTEM APPROACH

The Safe System approach is a holistic view of the road system that anticipates human mistakes and keeps impact energy on the human body at tolerable levels so that fatal and serious injury crashes are eliminated.[2] This approach to understanding transportation safety has been widely used in other countries. Sweden and the Netherlands implemented the Safe System approach over 20 years ago and their traffic fatalities have been reduced by over 50%.[3] The Safe System approach has six principles (illustrated around the outside of the graphic) and five elements (illustrated within the graphic).

Whereas traditional road safety strives to modify human behavior and prevent all crashes, the Safe System approach also refocuses transportation system design and operation on anticipating human mistakes and lessening impact forces to reduce crash severity and save lives.

Rhode Island seeks to implement the Safe System approach framework through the 2023 Plan. The Emphasis Areas feature a list of the five Safe System elements with a brief explanation of how Rhode Island can incorporate the approach.



Source: FHWA

TRADITIONAL VS. SAFE SYSTEM APPROACH

Traditional		*Safe System*
Prevent crashes	→	Prevent deaths and serious injuries
Improve human behavior	→	Design for human mistakes/limitations
Control speeding	→	Reduce system kinetic energy
Individuals are responsible	→	Share responsibility
React based on crash history	→	Proactively identify and address risks

[2] https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA_SafeSystem_Brochure_V9_508_200717.pdf

[3] https://www.wri.org/news/release-rid-world-125-million-road-deaths-safe-system-approach-shows-way

EFFECTIVE COUNTERMEASURES

Rhode Island is proud RIDOT and its partners have leveraged the small state geography to implement systemic improvements, and have relied on known resources such as FHWA's Proven Safety Countermeasures (PSCs) and NHTSA's Countermeasures that Work to address safety challenges.

FHWA offers a resource for transportation practitioners to use when determining which countermeasures are best to implement. The PSC initiative features 28 countermeasures and strategies that have been proven to reduce roadway fatalities and serious injuries.[4] The PSCs are often eligible for funding under most federal-aid highway funding programs.[5]

The PSCs are applicable for all users and all types of roadways. The PSCs are organized by safety Focus Areas—speed management, intersections, roadway departures, and pedestrians/bicyclists. The PSC website also features crosscutting countermeasures that address multiple safety Focus Areas. FHWA reviewed the 28 countermeasures and created fact sheets for each. Each fact sheet highlights safety benefits, explains what the countermeasures is, discusses potential applications, and lists considerations for agencies who may implement the countermeasure.

Countermeasures that are colored blue are ones that RIDOT is currently using as part of an existing systemic improvement program.

SPEED MANAGEMENT

- Speed Safety Cameras
- Variable Speed Limits
- Appropriate Speed Limits for All Road Users

ROADWAY DEPARTURE

- Wider Edge Lines
- Enhanced Delineation for Horizontal Curves
- Longitudinal Rumble Strips and Stripes
- Safety Edge^{SM}
- Roadside Design Improvements at Curves
- Median Barriers

INTERSECTIONS

- Backplates with Reflective Borders
- Corridor Access Management
- Left- and Right-Turn Lanes at Two-Way Stop-Controlled Intersections
- Reduced Left-Turn Conflict Intersections
- Roundabouts
- Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections
- Yellow Change Intervals

PEDESTRIAN/BICYCLIST

- Crosswalk Visibility Enhancements
- Bicycle Lanes
- Rectangular Rapid Flashing Beacons
- Leading Pedestrian Interval
- Median and Pedestrian Refuge Islands in Urban and Suburban Areas
- Pedestrian Hybrid Beacons
- Road Diets (Roadway Reconfiguration)
- Walkways

CROSSCUTTING

- Pavement Friction Management
- Lighting
- Local Road Safety Plans
- Road Safety Audits

[4] https://safety.fhwa.dot.gov/provencountermeasures/

[5] https://www.nhtsa.gov/sites/nhtsa.gov/files/2021-09/Countermeasures-10th_080621_v5_tag.pdf

EQUITY

Transportation safety decision-making has been a data-driven process that prioritizes funding projects and activities that can provide the greatest improvement to the areas with the greatest safety need. Safety partners in Rhode Island from community organizations and local, state, and federal officials have all placed a renewed focus on equity, and the 2023 Plan emphasizes the importance of equity.

The 2023 SHSP provides an opportunity for the Rhode Island transportation safety community to renew and strengthen its commitment to equity through safety investment in both infrastructure and behavioral initiatives.

Through the 2023 Plan, Rhode Island plans to evolve the conversation around equity through prioritizing investment in previously underserved areas, continuing to build and expand community partnerships, bringing greater transparency to the project prioritization process, and acting as a role model for addressing historic inequity.

"Equity means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality."

Executive Order 13985 of January 20, 2021[6]

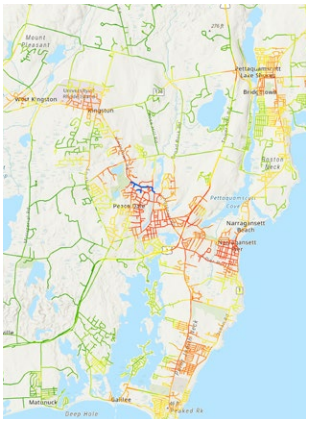
This SHSP provides an opportunity for the transportation safety community to renew its commitment to equity through safety investment.

There are still many opportunities to better inform transportation safety investment through a better understanding of equity. This better understanding begins with data and partnerships.

The role of transportation safety in promoting greater equity has several dimensions. Up to this point, key principles have included environmental justice areas in project selection and ensuring compliance with the Americans with Disabilities Act. Moving forward, some strategies that link transportation safety and equity include:

- Leverage the Traffic Safety Coalition as a multidisciplinary group that can guide and prioritize the next steps on better integrating equity into the transportation safety conversation.
- Revisit how data are used to identify inequities among populations, demographics, road user groups, or geographies. Consider greater detail such as health, social, and economic equities.
- Continue to build upon data-driven tools and resources to recognize whether a population, demographic, road user group, or geography is disproportionately impacted from the deaths, injuries, and property damage that are an outcome of a crash.
- Recognizing that mitigating transportation safety issues can lead to improved access and mobility, especially among active transportation modes and use that to inform decision-making, prioritization, and project scoping. These steps will lead to a more equitable transportation network.
- Working in partnership with stakeholders and local and community leaders, identify the greatest safety challenges and the right safety improvements. Roadway Safety Assessments have been a valuable tool in starting that process.

Rhode Island Active Transportation Infrastructure Investment Opportunities Map, a tool for identifying active transportation investment



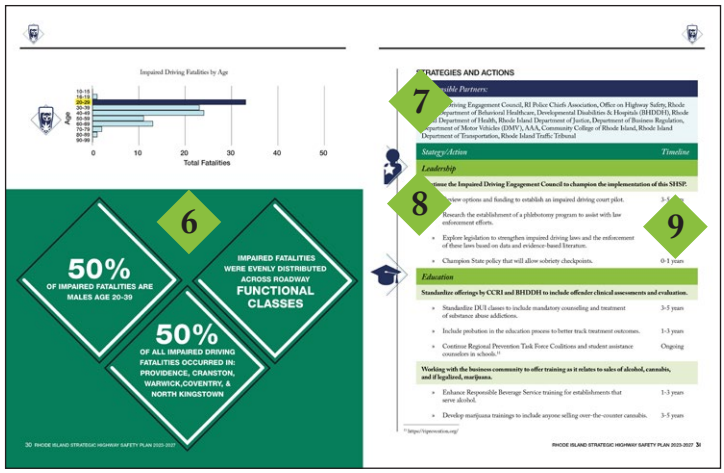
[6] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/

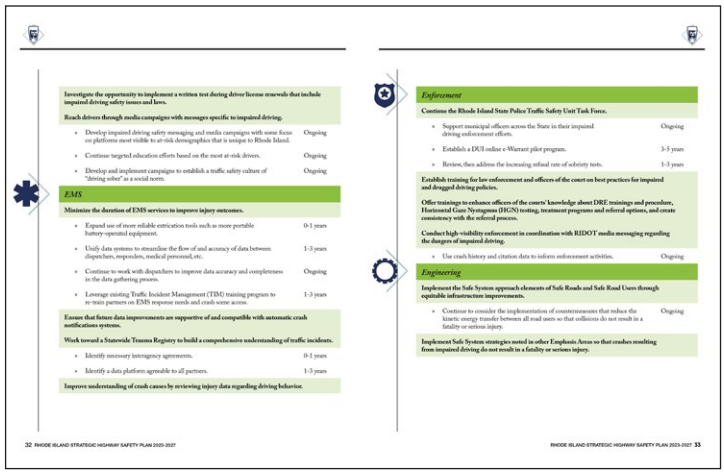
EMPHASIS AREA PLANS

HOW TO READ EMPHASIS AREA PLANS

The following pages describe the 12 Emphasis Areas, grouped into three Focus Areas, in the 2023 Plan. Each Emphasis Area plan includes:

1. **Emphasis Area & Definition:** Defines the crash types that the Emphasis Area addresses.
2. **Narrative:** Describes the current state of the problem and how the Emphasis Area will reduce fatalities and serious injuries.
3. **Safe System Approach:** Highlights the Safe System elements and discusses which elements are most relevant in the Emphasis Area (dark blue).
4. **Data:** Displays the 10-year fatal and serious injuries statistics as well as the Emphasis Area fatalities by age group.
5. **Top Overlaps:** Lists the top 3 overlaps with other EAs, highlighting that crashes have more than one contributing factor.
6. **Key Statistics:** Highlights interesting statistics about the Emphasis Area from the available crash data.
7. **Responsible Partners:** Identifies the partner agencies responsible for leading implementation of the strategies and actions.
8. **Strategies and Actions:** Lists the strategies and actions that the Emphasis Area Working Group developed. The strategies and actions are organized by Leadership and the 4Es of transportation safety - Education, EMS, Enforcement, and Engineering.
9. **Timeline:** Approximates how long it will take to implement the action.





IMPAIRED DRIVING

BEHAVIOR	IMPAIRED DRIVING OCCUPANT PROTECTION SPEED DISTRACTED DRIVING

BEHAVIOR FOCUS AREA

The Behavior Focus Area consists of Emphasis Areas addressing high-risk behaviors that increase the likelihood of a crash. Risky behaviors range from not wearing a seatbelt (Occupant Protection), driving while under the influence of alcohol or drugs (Impaired Driving), driving too fast for conditions or disregarding speed limits (Speed), or not paying full attention to the task of driving (Distracted Driving). Enforcement strategies are prevalent in this Focus Area and when coupled with education strive to educate road users and minimize risky behaviors.

Within the Emphasis Areas, enforcement and education work together to educate at-risk drivers and conduct statewide enforcement to reinforce positive driving behaviors. The Behavior Focus Area also includes engineering strategies as risky behaviors can depend on not only the driver but also the built environment. For example, implementing the Safe System approach elements of Safe Roads and Safe Speeds through equitable infrastructure improvements can lead to implementing countermeasures that reduce the kinetic energy transfer between all road users so that crashes do not result in a fatality or serious injury.

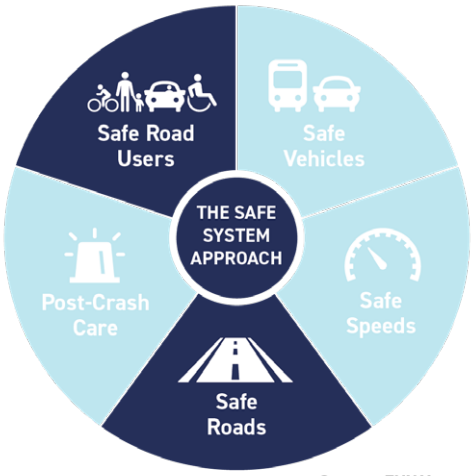
IMPAIRED DRIVING

Definition: Any crash in which a driver is reported to have been impaired by alcohol or drugs.

Impaired driving crashes involve drivers who may be operating under the influence of alcohol and/or drugs (legal and illegal). Between 2017 to 2021, approximately 30% of all roadway fatalities involved impaired drivers. Each year between 2017 to 2021 there were approximately 20 alcohol-related fatalities, which is an increase of 5 fatalities per year from 2012 to 2016. In 2018, alcohol-impaired crashes were 34% of the total roadway fatalities, which was second to speed-related crashes at 51%.[7] Drivers ages 25-34 are overrepresented in impaired crashes—31% of impaired driving crashes involve drivers in that age range.[8]

Since the previous SHSP, Rhode Island's Traffic Safety Unit Task Force has increased their efforts and led statewide driving under the influence (DUI) campaigns. During the planning process of this plan it was suggested that there has been a disconnect between enforcement and adjudication. In Rhode Island, the penalty for repeat offenders needs to be strengthened. The RIAG's office has placed an emphasis on eliminating impaired driving crashes and have implemented a 10-year lookback for DUI's; however, this was added only for third-time offenders who have a blood alcohol concentration (BAC) over 0.15. Rhode Island will continue the Impaired Driving Engagement Council and will coordinate and collaborate with the Prevention Advisory Committee to review options and funding to encourage the development of a drug court pilot.

Recently, marijuana was legalized in Rhode Island, which may lead to an increase in impairment-related crashes and fatalities. The Insurance Institute for Highway Safety (IIHS) and the Highway Loss Data Institute (HLDI) found that crash rates have risen in states who legalized recreational marijuana use and retail sales.[9] Law enforcement and educators are actively working in Rhode Island to educate citizens on impaired driving, specifically the risks of driving under the influence of marijuana. Rhode Island expanded law enforcement programs and training related to marijuana. High school educators, as part of the training, taught marijuana driving education programs to thousands of health students.



Source: FHWA

Safe Road Users and Safe Roads, elements of the Safe Systems approach, address impaired driving. Strengthening the coordination between enforcement and adjudication will help deter repeat offenders and will also increase awareness about the penalties associated with impaired driving.[10] Coordinating with the Infrastructure Emphasis Area, creating safer roads decreases the likelihood of a fatal crash occurring if proper countermeasures are in place.

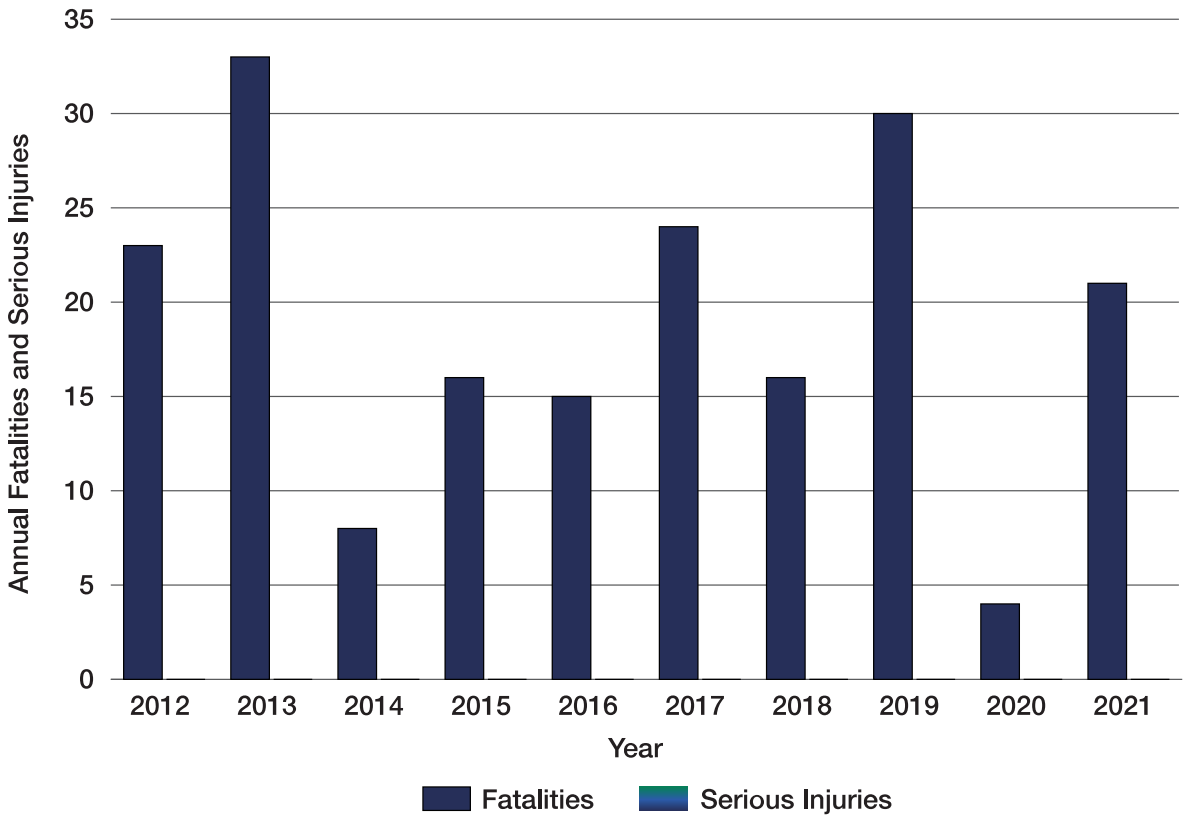
[7] https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/ri_fy21_hsp.pdf

[8] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/

[9] https://www.iihs.org/news/detail/crash-rates-jump-in-wake-of-marijuana-legalization-new-studies-show

[10] https://www.towardzerodeaths.org/wp-content/uploads/2019/12/TZD_National_Strategy.pdf

Impaired Driving



Note: Impaired driving serious injuries are not easily discerned using available crash reporting data, which would result in under reporting for this Plan.

These emphasis areas are the top overlaps with Impaired Driving fatalities:

Lane Departure 70%

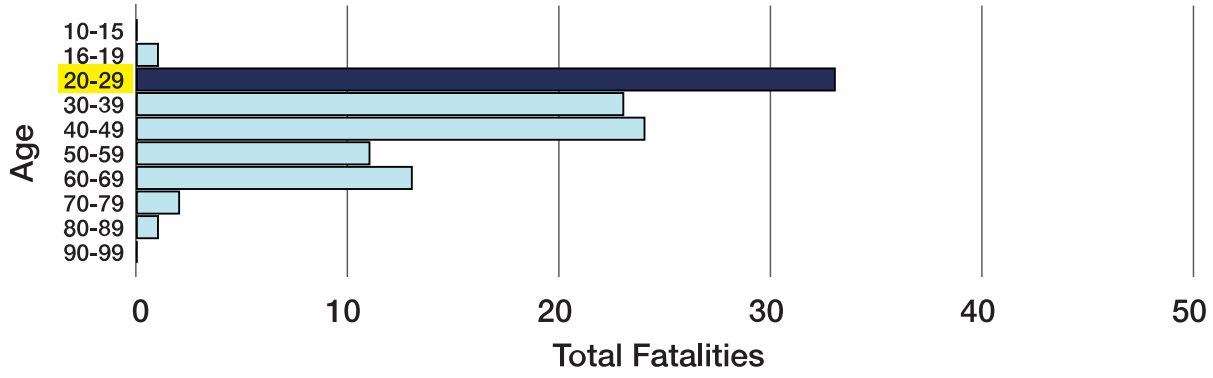
Speed 55%

Occupant Protection 35%

Motorcyclist 25%

Overall, 30% of all fatalities are Impaired Driving related (2017-2021).

Impaired Driving Fatalities by Age



50%

OF IMPAIRED FATALITIES ARE MALES AGE 20-39

IMPAIRED FATALITIES WERE DISTRIBUTED ACROSS ALL ROADWAY FUNCTIONAL CLASSES

50%

OF ALL IMPAIRED DRIVING FATALITIES OCCURRED IN: PROVIDENCE, CRANSTON, WARWICK, COVENTRY, & NORTH KINGSTOWN

STRATEGIES AND ACTIONS

Responsible Partners:

- Impaired Driving Engagement Council
- RI Police Chiefs Association
- OHS
- Rhode Island Department of Behavioral Healthcare
- BHDDH
- RI DOH
- RI DOJ
- Department of Business Regulation
- DMV
- AAA
- Community College of Rhode Island (CCRI)
- RIDOT
- Rhode Island Traffic Tribunal

Strategy /Action	*Timeline*
Leadership	
Continue the Impaired Driving Engagement Council to champion the implementation of this SHSP.	
» Review options and funding to establish an impaired driving court pilot.	3-5 years
» Research the establishment of a phlebotomy program to assist with law enforcement efforts.	3-5 years
» Explore legislation to strengthen impaired driving laws and the enforcement of these laws based on data and evidence-based literature.	0-1 years
» Champion state policy that will allow sobriety checkpoints.	0-1 years
Education	
Standardize offerings by CCRI and BHDDH to include offender clinical assessments and evaluation.	
» Standardize DUI classes to include mandatory counseling and treatment of substance abuse addictions.	3-5 years
» Include probation in the education process to better track treatment outcomes.	1-3 years
» Continue Regional Prevention Task Force Coalitions and student assistance counselors in schools.[11]	Ongoing

[11] https://riprevention.org/

Work with the business community to offer training as it relates to sales of alcohol and marijuana.

- » Enhance Responsible Beverage Service training for establishments that serve alcohol. — 1-3 years
- » Develop marijuana trainings to include anyone selling over-the-counter cannabis. — 3-5 years

Investigate the opportunity to implement a written test for all during driver license renewals that include impaired driving safety issues and laws.

Educate drivers through media campaigns with messages specific to impaired driving.

- » Develop impaired driving safety messaging and media campaigns with some focus on platforms most visible to at-risk demographics that are unique to Rhode Island. — Ongoing
- » Continue targeted education efforts based on the most at-risk drivers. — Ongoing
- » Develop and implement campaigns to establish a traffic safety culture of "driving sober" as a social norm. — Ongoing

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

- » Expand use of more reliable extrication tools such as portable battery-operated equipment. — 0-1 years
- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. — 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. — Ongoing
- » Leverage existing Traffic Incident Management (TIM) training program to re-train partners on EMS response needs and crash scene access. — 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. 0-1 years
- » Identify a data platform agreeable to all partners. 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Continue the Rhode Island State Police Traffic Safety Unit Task Force.

- » Support municipal officers across the state in their impaired driving enforcement efforts. Ongoing
- » Establish a DUI online e-Warrant pilot program. 3-5 years
- » Review, then address, the increasing refusal rate of sobriety tests. 1-3 years

Establish training for law enforcement and officers of the court on best practices for impaired and drugged driving policies.

Offer trainings to enhance officers of the courts' knowledge about DRE trainings and procedure, Horizontal Gaze Nystagmus (HGN) testing, treatment programs and referral options, and create consistency with the referral process.

Conduct high-visibility enforcement in coordination with RIDOT media messaging regarding the dangers of impaired driving.

- » Use crash history and citation data to inform enforcement activities. Ongoing

Engineering

Implement the Safe System approach elements of Safe Roads and Safe Road Users through equitable infrastructure improvements.

- » Continue to consider the implementation of countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a fatality or serious injury. Ongoing

Implement Safe System strategies noted in other Emphasis Areas so that crashes resulting from impaired driving do not result in a fatality or serious injury.

OCCUPANT PROTECTION

Source: Shutterstock

OCCUPANT PROTECTION

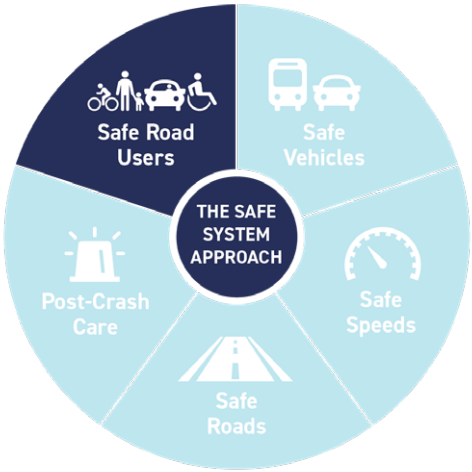
Definition: Any crash involving an occupant who was not using a restraint system (including child restraint systems).

Occupant protection crashes involve drivers of any age who are not using a restraint system. Between 2017 to 2021, approximately 25% of all roadway fatalities involved unbelted drivers. Each year between 2017 to 2021 there were approximately 17 unbelted-related fatalities per year, which is consistent from 2012 to 2016. In 2019, unbelted-involved crashes were 32% of the total roadway fatalities.[12]

Since 2013, Rhode Island has had a primary seat belt law (R.I.G.L. § 31-22-22) which includes child restraints and child passenger safety. Even though there is a primary seatbelt law for the state, in 2021, the rate at which people in Rhode Island wear their seatbelt was less than the national rate. The Rhode Island seat belt use rate was 88.6%, compared to the national rate of 90.7%.[12] OHS would like to eventually achieve universal seat belt use.

Since the previous SHSP, OHS created a plan to work with NHTSA to conduct a new Occupant Protection Assessment and determine what actions/countermeasures have and have not been working in the state. OHS's efforts have led to a more recent seat belt usage rate of 89.4%, which is closer to the national usage rate. OHS has a strong partnership with law enforcement who mobilize as part of high visibility *Click It or Ticket* campaigns to enforce drivers and passengers to wear their seatbelts. Law enforcement also partnered with RIDOT to provide messaging as part of these campaigns on variable message sign boards. Through continued partnership across the 4Es OHS will continue to work toward a 95% seat belt use rate in the coming years.

Occupant protection focuses on more than wearing a seatbelt—it includes one of our more vulnerable populations, children. Children, especially at a young age, may be unable to buckle themselves in a vehicle. We have a shared responsibility as drivers and occupants to protect children in vehicles. Rhode Island has had many successes in strengthening child passenger safety and educating the community on properly installing car seats. Safe Kids Rhode Island, which is part of the national Safe Kids organization, works with communities to prevent unintentional injuries to children in the state, as well as in southeastern Massachusetts. Safe Kids Rhode Island, through Lifespan and its Injury Prevention Center, hosts child safety seat checks, partners with organizations to trade-in car seats, and provides education on ways to keep children safe while in a car. As part of their education efforts, OHS has created bi-lingual materials, featuring content in Spanish, so that resources are accessible to more residents. OHS has continued to staff a Program Coordinator for the Occupant Protection program and plans to strengthen the relationship with EMS by introducing an initiative to enhance the child passenger technician training program and expand into fire services, rescue, and ambulance personnel.[13] Rhode Island plans to double down on their efforts and continue to drive seat belt usage rate above the national rate.



Source: FHWA

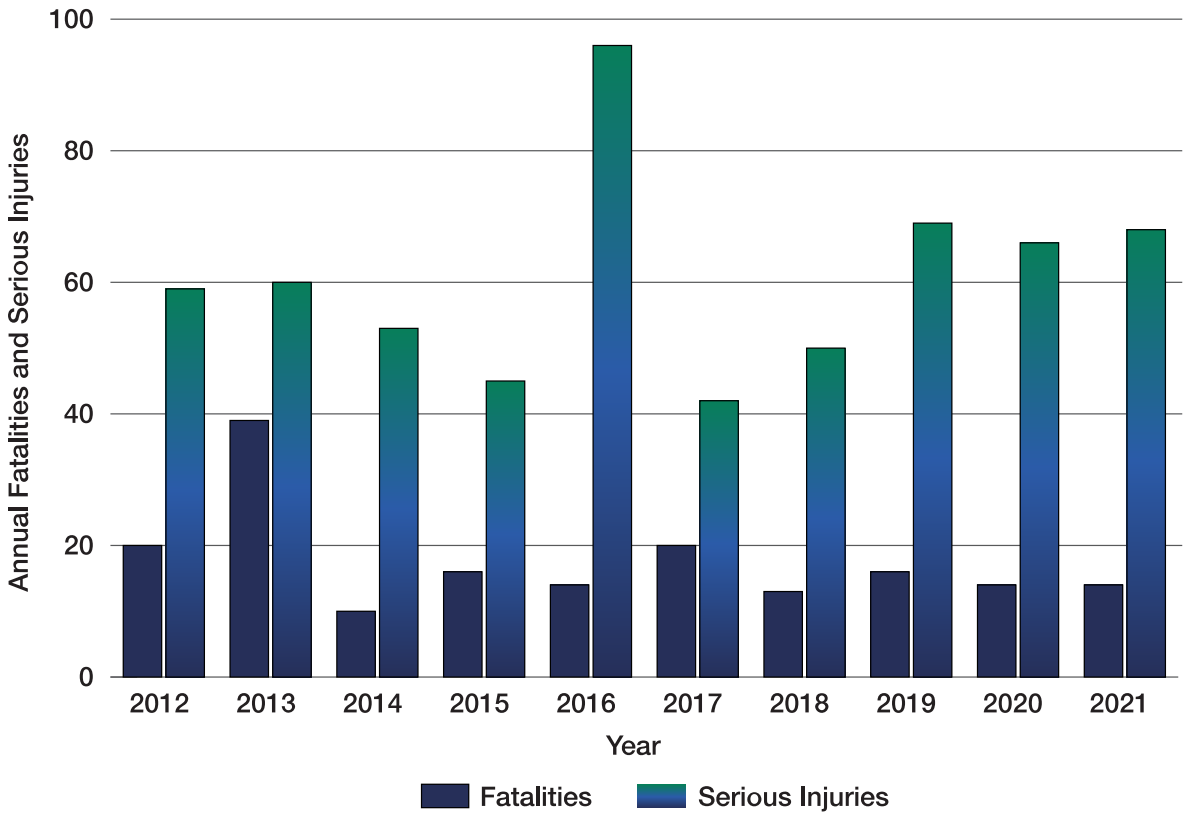
The Safe Road Users element of the Safe System approach addresses Occupant Protection crashes. Strengthening the coordination between education, enforcement, and EMS will help increase seat belt usage rates for drivers and passengers.[14]

[12] https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/ri_fy21_hsp.pdf

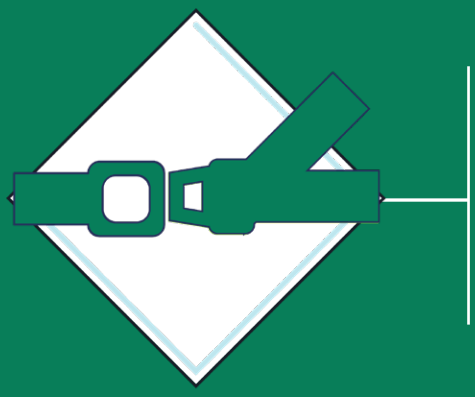
[13] https://www.facebook.com/safekidsrhodeisland/

[14] https://www.towardzerodeaths.org/wp-content/uploads/2019/12/TZD_National_Strategy.pdf

Occupant Protection



These emphasis areas are the top overlaps with Occupant Protection fatalities:



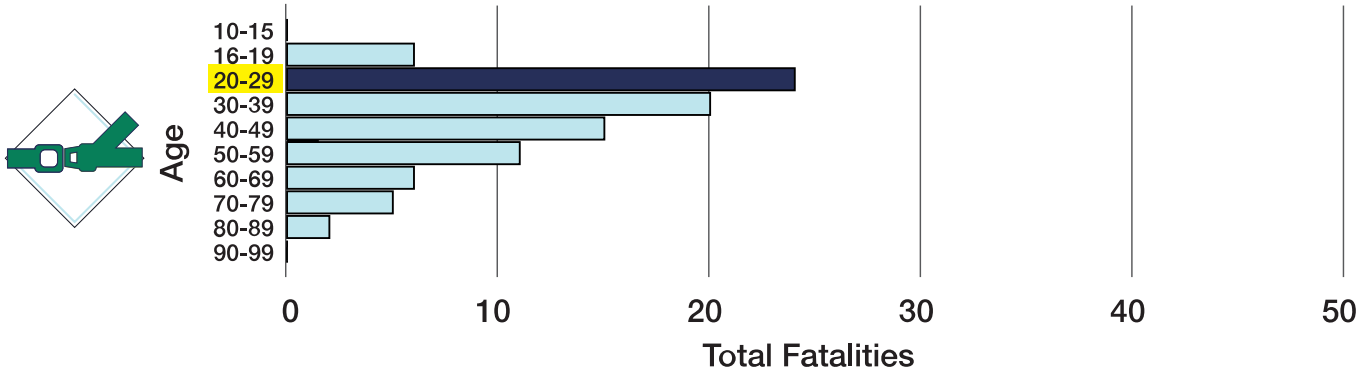
Lane Departure 70%

Speed 50%

Impaired Driving 39%

Overall, 25% of all fatalities are Occupant Protection related (2017-2021).

Occupant Protection Fatalities by Age



MALES UNDER 50 MAKE UP

50%

OF UNBELTED FATALITIES

2021 BELT USE IN RHODE ISLAND WAS

88.6%

MALES

ARE MORE THAN 2X AS LIKELY TO BE INVOLVED IN AN UNBELTED FATALITY

STRATEGIES AND ACTIONS

Responsible Partners:	
» Occupant Protection Task Force	» RI DOH
» RI Police Chiefs Association	» RIDOT
» OHS	

Strategy /Action	*Timeline*
Leadership	
Continue the Occupant Protection Task Force to champion the implementation of this SHSP.	
» Support legislation to mandate a longer duration for children using a five-point harness.	1-3 years
» Continue and expand engagement with leaders around the state on the importance of occupant protection issues.	Ongoing
Increase regular meetings and training for child passenger safety (CPS) instructors.	
» Increase occupant protection educational programs across the state and increase collaboration.	Ongoing
Continue to build data and understanding of belt usage.	
» Conduct a survey of the public to measure behavior changes related to seatbelt use.	Ongoing
» Collect seatbelt usage at night to support observational studies.	Ongoing
Education	
Develop and implement campaigns and programs to establish a traffic safety culture of "wearing your seatbelt" as a social norm to achieve a seatbelt usage rate of 95%.	
» Create targeted education efforts based on the most at-risk drivers.	Ongoing
» Continue using new media and message boards to reach drivers to promote occupant protection.	Ongoing
» Create a cadre of law enforcement officers to teach seatbelt safety in schools and businesses using a consistent and approved curriculum.	1-3 years

Increase demonstrations using the roll-over simulator, showing the effects of seat belt use in the event of a rollover crash.

- » Increase CPS education of correct installations and use. — Ongoing
- » Create and distribute CPS training videos. — Ongoing
- » Inspect and assess all child inspection stations. — Ongoing

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

- » Expand use of more reliable extrication tools such as portable battery-operated equipment. — 0-1 years
- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. — 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. — Ongoing
- » Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. — 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. — 0-1 years
- » Identify a data platform agreeable to all partners. — 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Train law enforcement and first responders on correct CPS installation and accurate occupant protection crash reporting in accordance with MMUCC 5.

Create and distribute informational material for law enforcement and new CPS technicians regarding the National Digital Car Seat Check Form.

Conduct high-visibility enforcement in coordination with RIDOT media messaging regarding unbelted dangers.

- » Use crash history and citation data to inform enforcement activities. Ongoing

Engineering

Implement the Safe System approach elements of Safe Road Users through equitable infrastructure improvements.

- » Continue to consider the implementation of countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a fatality or serious injury. Ongoing

Implement Safe System strategies noted in other emphasis areas so that crashes resulting from lack of belt use do not result in a fatality or serious injury.

SPEED

Source: Rhode Island Commerce/Visit Rhode Island

SPEED

Definition: Any crash reported to have been speed-related (e.g., driving too fast for conditions, exceeding the speed limit, or otherwise driving aggressively).

Nationally, for more than two decades, speed has been a factor for one-third of all motor vehicle fatalities.[15] In Rhode Island, between 2017 to 2021, approximately 42% of all roadway fatalities were speed-related—a nearly 10%-increase from the previous SHSP. Each year between 2017 to 2021 there were approximately 28 speed-related fatalities, which is also an increase from 2012-2016. **In 2019, 63% of all fatalities were speed-related, placing Rhode Island as the state with the highest percentage of speed-related fatalities in the nation.**[16] The majority of drivers involved in speed-related fatal crashes were between the ages of 16 and 34.[17]

As speed increases, so does the risk for a fatal or serious injury to occur. The IIHS found that a 5-mph increase in the maximum speed limit leads to an 8% increase in the fatality rate on interstates and freeways, and a 3% increase on all other roads.[18] Also related to vehicle speed is the likelihood of a pedestrian surviving a crash. A person hit by a car traveling at 35 mph is five times more likely to die than a person hit by a car traveling at 20 mph.[15] In Rhode Island, the proportion of speed-related fatalities occurring on roads with a speed limit of 30 mph or lower was ***higher*** compared to New England and the Nation.

Rhode Island law enforcement has continued to build partnerships and implement community speed tools to deter risky speeding behaviors and decrease the number of speed-related fatalities. RIDOT has also conducted road safety assessments for local communities to examine specific roadway/speed issues. While Rhode Island has been working with communities on roadway design and with law enforcement to train officers on speeding and improve data collection, the number of speed-related citations have decreased in 2020 and 2021, despite an increase nationwide of risky behaviors. Rhode Island law enforcement, like other states, has experienced staffing challenges.

OHS also partnered with law enforcement and increased its level of paid media buys to support a new speed enforcement campaign launched in 2020, *Know the Limits*, which educates drivers about posted speed limits and reducing speed based on road conditions.[19] OHS partners with local community groups, safety organizations, and law enforcement using a data-driven approach to identify speeding hot spots and target paid media and law enforcement in these areas. Rhode Island plans to continue these targeted education efforts over the next 5 years to reduce speed-related fatalities.

Source: FHWA

Safe Road Users, Safe Speeds, and Safe Roads, elements of the Safe System approach, address speed-related crashes. To address speed-related crashes, strategies must include a focus on roadway design and treatments, and education efforts to change driver behavior. Related to Safe Speeds, roadways need to be designed with lower speed limits in mind.[20]

[15] https://www.nhtsa.gov/risky-driving/speeding

[16] https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813194

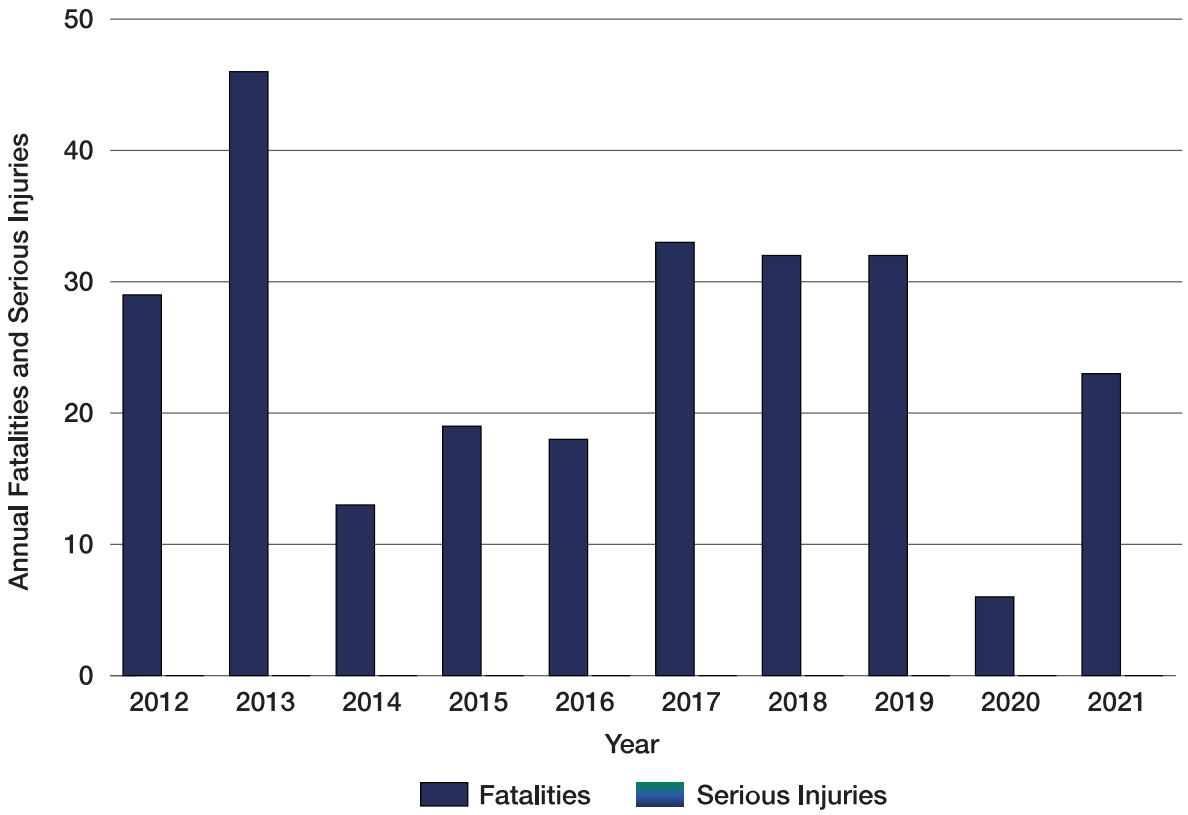
[17] https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/ri_fy21_hsp.pdf

[18] https://nacto.org/publication/city-limits/the-need/speed-kills/

[19] https://www.dot.ri.gov/Safety/speeding_safety.php

[20] https://www.towardzerodeaths.org/wp-content/uploads/2019/12/TZD_National_Strategy.pdf

Speed



Note: Speed-related driving serious injuries are not easily discerned using available crash reporting data, which would result in under reporting for this Plan.

These emphasis areas are the top overlaps with Speed fatalities:

Lane Departure 62%

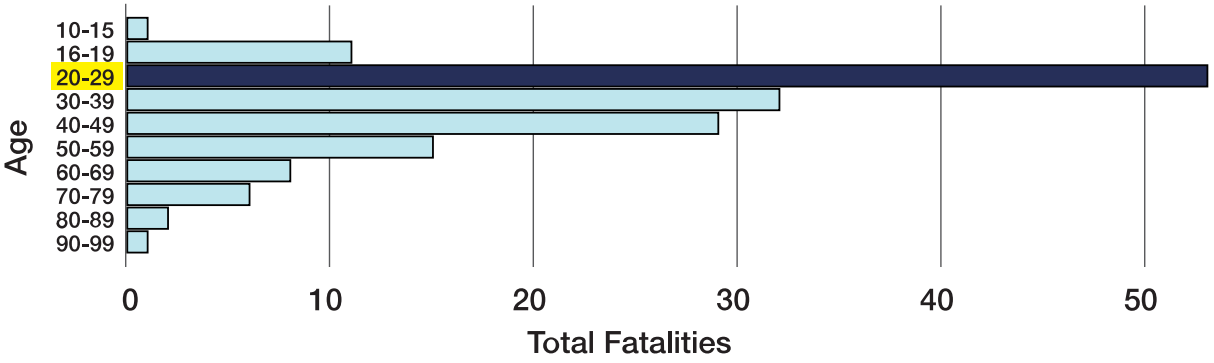
Impaired Driving 40%

Ocupant Protection 32%

Motorcycle 26%

Overall, 42% of all fatalities are Speed related (2017-2021).

Speed Fatalities by Age



IN 2019
RHODE ISLAND HAD THE HIGHEST PROPORTION OF
SPEED-RELATED FATALITIES IN THE NATION

HIGHEST INSTANCES OF SPEED-RELATED FATALITIES IN: PROVIDENCE, CRANSTON, PAWTUCKET, WARWICK, EAST PROVIDENCE, RICHMOND, & WOONSOCKET

STRATEGIES AND ACTIONS

Responsible Partners:

- Speeding Task Force
- RI Police Chiefs Association
- OHS
- RIDOT
- BHDDH
- RI DOH
- RI AG
- Local Departments of Public Works
- Rhode Island Traffic Tribunal

Strategy /Action	*Timeline*
Leadership	
Continue the Speeding Task Force to champion this SHSP.	
» Work with local personnel (e.g., public works directors, city engineers) to better understand speed-related issues at a local level.	Ongoing
Perform a multidisciplinary speed study review of state and local speed limits throughout the state.	
Education	
Develop and implement campaigns to establish a traffic safety culture of "safe speeds" as social norm.	
» Continue equitable distribution of outreach material, including a community toolkit, to cover a larger proportion of communities.	Ongoing
» Continue targeted education efforts based on the most at-risk drivers in coordination with law enforcement and community members.	Ongoing
EMS	
Minimize response time and time from crash to medical treatment to improve injury outcomes.	
» Expand use of more reliable extrication tools such as portable battery-operated equipment.	0-1 years
» Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc.	1-3 years
» Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process.	Ongoing
» Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access.	1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. 0-1 years
- » Identify a data platform agreeable to all partners. 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Prevent speeding and aggressive driving behavior through enforcement.

- » Consider automated speed enforcement in school zones and balance it with in-person law enforcement patrols. Ongoing
- » Enforce speeding laws and participate in national mobilization campaigns, especially in areas where speed-related crashes are occurring. Ongoing

Engineering

Implement the Safe System approach elements of Safe Road Users and Safe Speeds through equitable infrastructure improvements.

- » Support the implementation of countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a fatality or serious injury. Ongoing
- » Continue conducting Road Safety Assessments to identify speed-related issues and implement countermeasures. Ongoing

Implement Safe System strategies noted in other emphasis areas so that crashes resulting from Speed do not result in a fatality or serious injury.

Revisit design standards for accommodation of all users, where feasible.

Know the Limits - Never Speed

In an effort to counter the sharp rise in speeding fatalities in Rhode Island and observed increase in risk-taking behavior in Rhode Island and around the country, RIDOT OHS worked with media partners in 2021 to develop the 'Know the Limits' campaign. https://www.youtube.com/watch?v=rtsgbnLaXeQ

DISTRACTED DRIVING

Source Shutterstock

DISTRACTED DRIVING

Definition: Any crash involving a driver who has been reported as being distracted (i.e., not fully focused on the act of driving.)

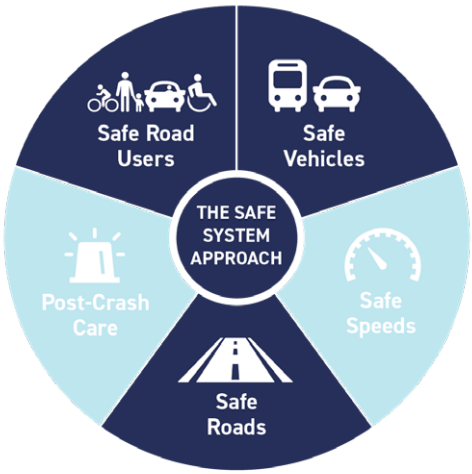
Distracted driving crashes involve drivers who are not fully focused on the act of driving and are instead distracted by something. There are three main types of distraction: visual, manual, and cognitive.[21] Nationally, each year between 2010 and 2019, about 3,000 people die in crashes involving a distracted driver.[21] Distraction-related crashes not only affect drivers. In 2019, approximately 1 in 5 of the people who died nationally in crashes involving a distracted driver were not in vehicles—they were riding a bike, walking, or participating in another activity outside the vehicle.[21]

In 2018, Rhode Island established a hands-free law (R.I.G.L. § 31-22-31), which prohibits any driver from using a hand-held communication device. While drivers are not allowed to hold a cell phone or other wireless device, they are allowed to use in-car or other hands-free systems. Minor drivers are further restricted and not allowed to use any mobile device while driving—with or without hands-free.[22]

In Rhode Island, between 2017 to 2021, approximately 1% of all roadway fatalities were reported to involve distracted drivers. Each year between 2017 to 2021 there was approximately 1 distracted-related fatality per year. While this number seems low, distracted driving is often difficult to identify and is largely unreported. When officers arrive on the scene, they rely on the driver's self-reported information, which is statistically unreliable information.[23]

Law enforcement officers in Rhode Island have been conducting targeted enforcement and implemented a two-officer technique to observe vehicles as they are slowing down and contacting officers ahead to confirm if a driver was using a hand-held device. Rhode Island plans to increase the training for law enforcement officers and identify other ways to better identify distracted drivers.

In addition to increased enforcement, increasing the number of education campaigns and urging a change in societal behavior will help reduce the number of distracted-related crashes. Every April, OHS focuses their public outreach efforts on distracted driving and partners with NHTSA's national, "U Drive. U Text. U Pay." campaign as part of Distracted Driving month. OHS hopes to expand their educational efforts and establish a traffic safety culture making safe driving habits a norm.



Source: FHWA

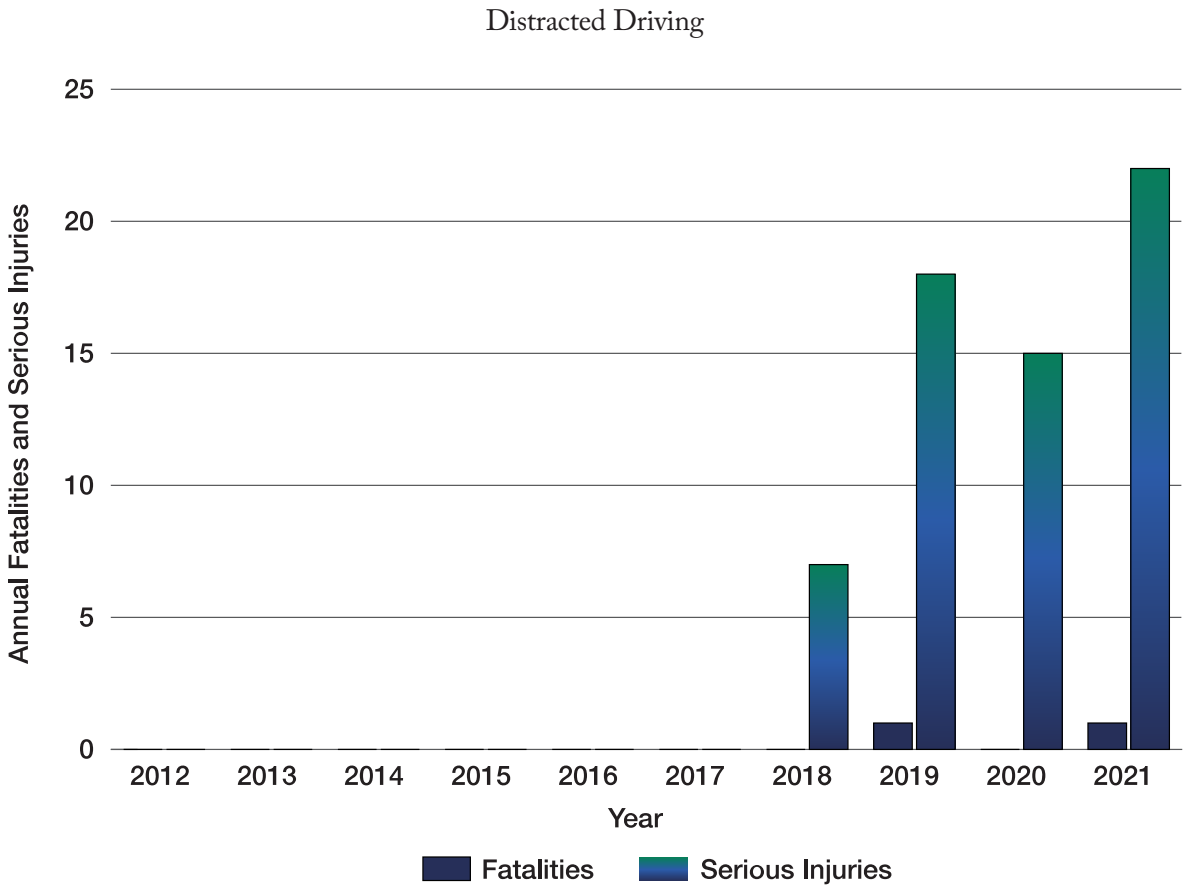
Safe Road Users, Safe Vehicles, and Safe Roads, elements of the Safe System approach, address distracted driving. Strengthening the coordination between enforcement, education, and cell phone companies can work to change driver behavior and address distractions while driving. It is also important to consider vehicle manufacturers and creating new vehicle technology that does not further in-vehicle distractions.[24]

[21] https://www.cdc.gov/transportationsafety/distracted_driving/index.html

[22] https://www.dot.ri.gov/Safety/distracted_safety.php#:~:text=Rhode%20Island%20law%20prohibits%20mobile,or%20without%20hands%20free%20capability

[23] https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/ri_fy21_hsp.pdf

[24] https://www.towardzerodeaths.org/wp-content/uploads/2019/12/TZD_National_Strategy.pdf



Distracted Driving is often underreported in crashes. Rhode Island continues to work with law enforcement to improve recognition of distracted driving for improved enforcement and on data improvements in this Emphasis Area.

STRATEGIES AND ACTIONS

Responsible Partners:	
» RI Police Chiefs Association	» RI DOH
» OHS	» RI AG
» RIDOT	» Rhode Island Traffic Tribunal

Strategy /Action	*Timeline*
Leadership	
Coordinate with distracted driving partners to champion implementation of this SHSP.	
» Support a pay-by-mail option for distracted driving citations.	1-3 years
Education	
Develop and implement campaigns to establish a traffic safety culture of "driving focused" as social norm.	
» Create a new slogan that identifies distracted driving as a singular campaign to decrease this behavior.	0-1 years
» Continue targeted education efforts based at the most at-risk drivers in coordination with law enforcement and community members.	Ongoing
EMS	
Minimize response time and time from crash to medical treatment to improve injury outcomes.	
» Expand use of more reliable extrication tools such as portable battery-operated equipment.	0-1 years
» Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc.	1-3 years
» Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process.	Ongoing
» Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access.	1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. 0-1 years
- » Identify a data platform agreeable to all partners. 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Adopt or adapt unique and innovative best practices to monitor and enforce distracted driving activity.

- » Increase training for law enforcement officers to better identify distracted drivers. Ongoing
- » Collaborate with other neighboring agencies outside of the state for a targeted campaign and mobilizations addressing distracted driving. Ongoing
- » Encourage law enforcement leadership to create community discussions regarding community traffic safety (e.g., Coffee with the Chief). 0-1 years

Engineering

Implement the Safe System approach elements of Safe Road Users and Safe Vehicles through equitable infrastructure improvements.

- » Support the implementation of countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a fatality or serious injury. Ongoing

Implement Safe System strategies noted in other emphasis areas so that crashes resulting from distracted driving do not result in a fatality or serious injury.

INFRASTRUCTURE

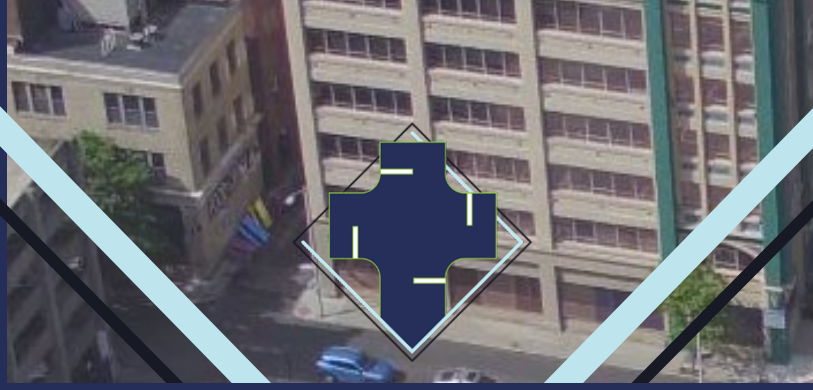
INTERSECTIONS
LANE DEPARTURES
WORK ZONES

INFRASTRUCTURE FOCUS AREA

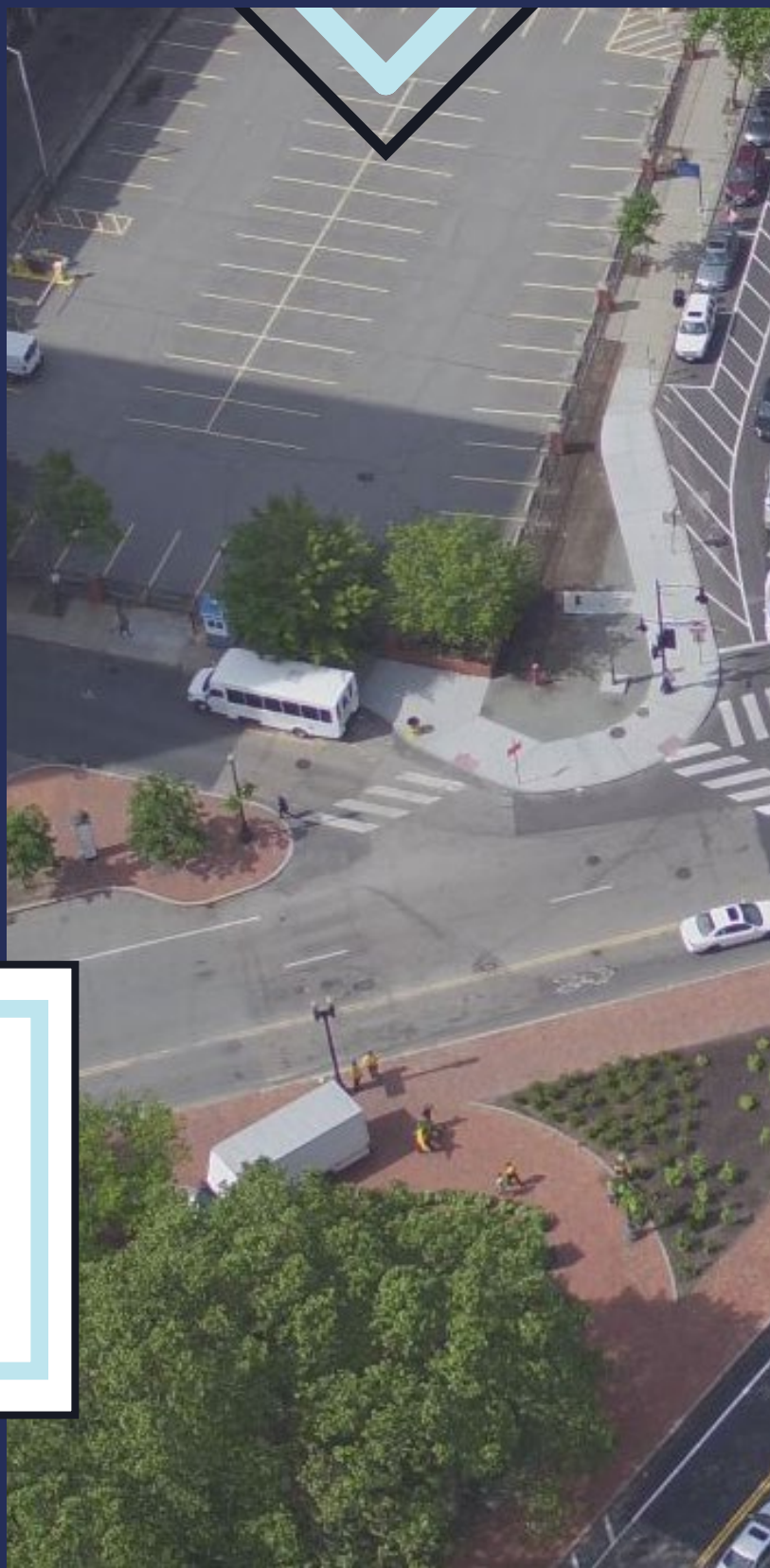
The Infrastructure Focus Area includes Emphasis Areas that target locations (Intersections and Work Zones) and crash types (Lane Departures). Within this Focus Area, engineering strategies are most prevalent—these strategies include implementing countermeasures or roadway designs with proven safety benefits supported by research evaluations.

Engineering solutions should also be paired with enforcement and education to reach an even wider array of road users. For example, education is needed to teach all road users on intersection designs or countermeasures that are unfamiliar. Education efforts also include appropriate interactions of modes since intersections are areas where conflicts are inherent.

Complete Streets prioritize safety, comfort, and connectivity to destinations for all people who use the street network. Complete Streets serve pedestrians, bicyclists, public transportation users, children, older individuals, individuals with disabilities, motorists, and freight vehicles. Rhode Island seeks to implement Complete Street principles through the Safe System approach, resulting in more livable communities.



INTERSECTIONS



Source: VHB

INTERSECTIONS

Definition: An intersection crash is any crash reported at or influenced by an intersection.

From 2017-2021, 1 in 5 roadway fatalities occurred at or were related to an intersection, amounting to 13 deaths on average per year. Intersections have inherent risk because they are locations where various transportation modes (e.g., pedestrians, cyclists, cars, buses) and movements converge. Certain crash types are more prevalent depending on vehicular movements at intersections. For example, left-turn and through movements create opportunities for angle/broadside and head-on crashes—these two crash types make up almost 80% of intersection fatalities (56% and 23%, respectively) from 2017 to 2019. The top overlapping Emphasis Areas with Intersections are Speed, Older Drivers, and Motorcyclists.

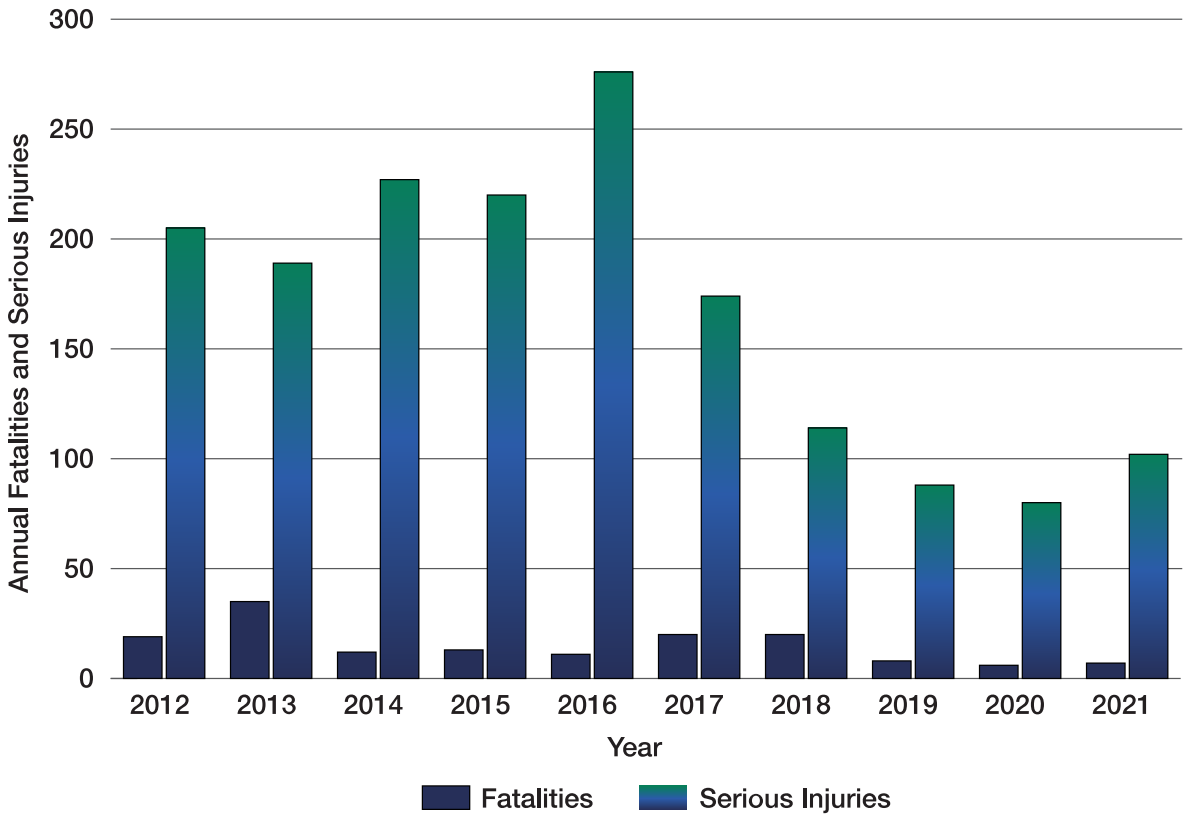
Rhode Island balances a systemic and site-specific approach to intersection safety. RIDOT's systemic intersection program applies effective low-cost treatments across many intersections that share common risk factors. RIDOT has conducted over 25 road safety assessments since the 2017 SHSP, which are beneficial to investigate intersections with complicated/irregular geometries that present unique challenges and solutions that cannot be solved by traditional control types or countermeasures. RIDOT collects data for yellow and red signal timings, which are used to determine appropriate pedestrian crossing timings. The state also collects inventory data such as crosswalks and traffic signals to aid in project selection prioritization.

Rhode Island is committed to implementing PSCs, including geometric changes to the roadway (e.g., roundabouts) or lower-cost countermeasures that can be spread across the roadway network (e.g., signing, retroreflective backplates on signals, pedestrian signals). These projects are selected and prioritized using an approach that considers the expected crash benefits and costs, reduction in fatal and serious injuries, and equity and environmental justice impacts. With continued and expanded use of countermeasures, Rhode Island will be able to develop state-specific safety performance functions (SPFs) and CMFs to assess the safety effectiveness of treatments and better identify locations and prioritize projects.

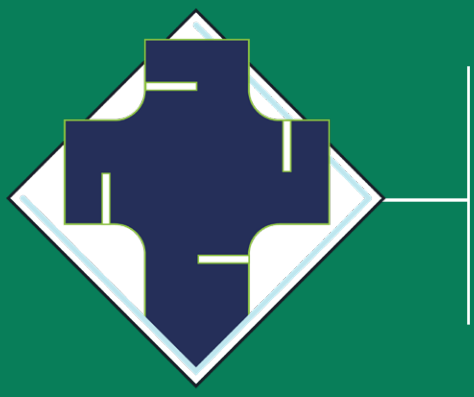
Source: FHWA

Because humans make mistakes and the human body is vulnerable, a proactive approach is necessary to manage the impact forces (i.e., reduce speed and perpendicular collision angles) surrounding a crash. Rhode Island seeks to design or retrofit intersections to limit opportunities for the occurrence of severe crash types, eliminate complex movements/decisions for road users, and reduce speeds. Intersections are inherent locations where road users share the road; therefore, road users must be aware of new, innovative designs and how to interact with other road users.

Intersections



These emphasis areas are the top overlaps with Intersection fatalities:



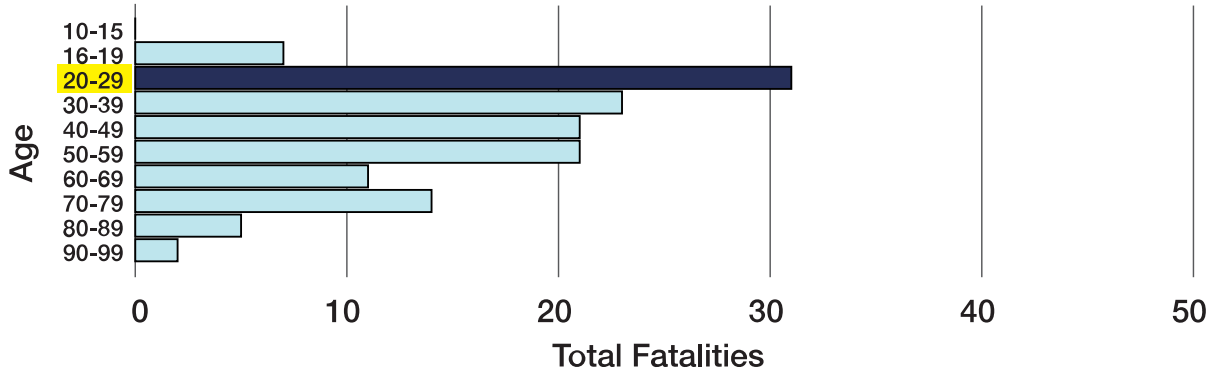
Motorcycle 34%

Speed 34%

Older Driver 30%

Overall, 20% of all fatalities are Intersection related (2017-2021).

Intersection Fatalities by Age



57%
OF FATALITIES OCCURRED BETWEEN 12:00PM – 9:00 PM

25%
OCCURRED IN RURAL AREAS, HIGHER THAN ANY OTHER EA

50%
OF INTERSECTION FATALITIES OCCURRED IN: PROVIDENCE, WARWICK, FOSTER, JOHNSTON, PAWTUCKET

59%
OF CRASHES ARE ANGLE CRASHES

STRATEGIES AND ACTIONS

Responsible Partners:

- HSIP Committee
- OHS
- RIDOT
- RI DMV
- Rhode Island Traffic Tribunal
- Local Departments of Public Works
- Rhode Island Police Chiefs Association

Strategy /Action	*Timeline*
Leadership	
Maintain the HSIP Committee to support the implementation of intersection strategies and the implementation of this SHSP.	
Continue to build relationships with local governments, cities, and towns to support safety improvements on local roads.	
» Continue to build and maintain relationships with local partners to support engineering safety improvements outside of state jurisdiction.	Ongoing
» Work with cities and towns to support safety improvement implementation. Consider programs such as Safe Streets for All, which can help localities fund planning and implementation for safety improvements.[25]	Ongoing
Education	
Use everyday touchpoints with drivers and travelers to provide re-education messages (e.g., intersection/roundabout operations, interactions between various modes/vehicles, traffic laws).	
» Consider pamphlets with paper license renewals or registrations, or pop-up "quizzes" with online renewals as examples.	2-3 years
Implement a written test during driver license renewals that include intersection safety issues and laws.	
Reach all road users through media campaigns.	

[25] https://www.transportation.gov/sites/dot.gov/files/2022-03/Safe-Streets-and-Roads-for-All-Fact-Sheet_March-2022.pdf

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

- » Expand use of more reliable extrication tools such as portable battery-operated equipment. — 0-1 years
- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. — 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. — Ongoing
- » Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. — 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. — 0-1 years
- » Identify a data platform agreeable to all partners. — 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Continue and expand red light running enforcement through additional enforcement details and use of technology. Enforcement should consider community input and equity impacts.

Develop data-informed, targeted enforcement programs geared toward intersection safety (e.g., red light running).

- » Review intersection crash history to inform targeted enforcement activities. — Ongoing

Engineering

Implement the Safe System approach principle of Safe Roads, Safe Road Users, and Safe Speeds through intersection improvements.

» Continue the deployment of Proven Safety Countermeasures (e.g., turn lanes, roundabouts, signal backplates, retiming clearances).	Ongoing
» Implement countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a fatality or serious injury.	Ongoing
» Maintain and enhance established systemic roadway safety improvement programs, including the Localized Bottleneck Mitigation Program, the Vulnerable Road User Program, and Intersection/Driveway Angle Crash Mitigation Program.	Ongoing
» Maintain program of road safety assessments for detailed site reviews for both systemic and targeted safety challenges and building partnerships and consensus among stakeholders.	Ongoing

Promote, design, and maintain infrastructure for emerging vehicle technologies to support safe intersection passage.

Revisit design standards that consider the context of a roadway's use and accommodation of all users, where feasible.

» Continue to consider Complete Streets principles for all design projects.	Ongoing

Evaluate the safety effectiveness of completed intersection projects and countermeasures.

» Develop state-specific SPFs and CMFs.	Ongoing

Maintain and continue to enhance databases and digital inventories of crashes, infrastructure, and transportation features.

» Continue to use databases and digital inventories to inform systemic countermeasure implementation.	Ongoing

LANE DEPARTURES

Source: RIDOT

LANE DEPARTURES

Definition: A lane departure crash is any crash in which the first harmful event was a result of a lane departure (e.g., head-on, sideswipe opposite direction, run-off-road crashes, fixed object crashes, overturn, or rollover).

From 2017 to 2021, 56% of traffic fatalities involved a crash with a lane departure, amounting to 37 deaths annually—both statistics are the highest of all Emphasis Areas. Behavioral factors contribute to the occurrence and severity of lane departure crashes; therefore, examining the overlaps of other emphasis areas, such as Speed, Impaired Driving, and Occupant Protection is critical in addressing the issue. For example, in lane departure fatalities, 25% of drivers had a BAC over the legal limit of 0.08 (which is included in the 44% of fatalities with driver's BAC greater than 0), and 50% of fatalities involved an unbelted occupant. From 2017 to 2019, 82% of lane departure fatalities occurred in urban areas, 38% occurred on an interstate, freeway, or expressway, and 30% of lane departures occurred on local streets.

Over the past 5 years, RIDOT has strengthened its safety programs, including representing projects in the 10-year STIP that details lane departure projects in safety corridors. These projects include countermeasures such as guardrail and shoulder and center line rumble strips in resurfacing projects. The state has also inventoried roadway data on horizontal curves, which are locations with an increased risk of a lane departure crash. Collecting quality data allows for more robust safety analyses, which is demonstrated by RIDOT's new horizontal curve systemic program. The systemic analysis will identify common factors (e.g., curve radius, range of traffic volumes) of curves that have a propensity for higher occurrence of fatal and serious injury crashes.

Rhode Island is committed to infrastructure improvements to decrease the severity of a lane departure crash. Especially for rural areas, FHWA categorizes three ways to prevent fatalities resulting from a lane departure crash—and associated proven countermeasures used in Rhode Island for each.[26]

- » Keep vehicles in their lane (rumble strips, horizontal curve signage)
- » Reduce the potential for crashes (clear zone improvements)
- » Minimize crash severity (guardrail).

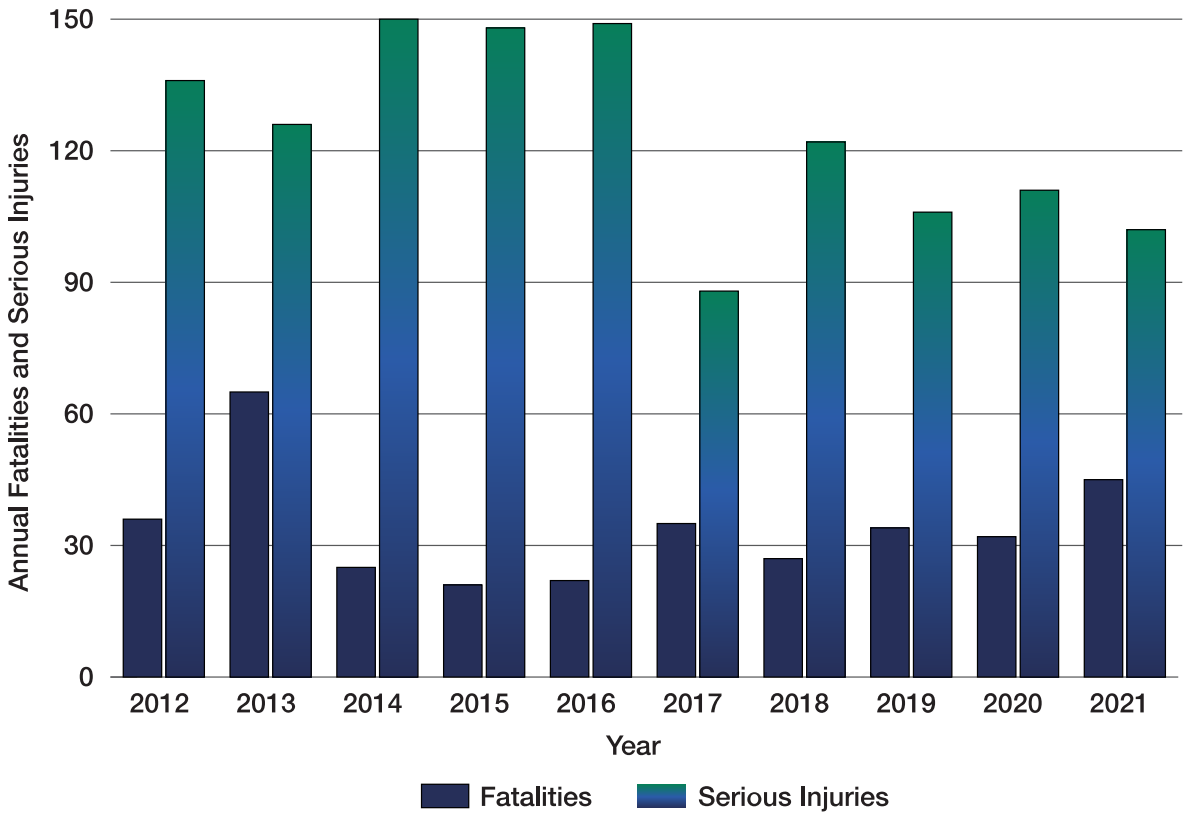
Rhode Island will continue the successful implementation of proven safety countermeasures and expand to tangent segments and non-state roadways. RIDOT will continue to deploy safety countermeasures and evaluate their safety effectiveness with reliable, comprehensive safety analyses.

Source: FHWA

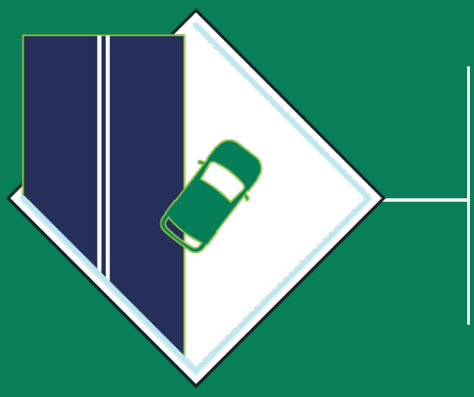
Since speed is an overlapping factor in lane departure managing speeds with designs and enforcement is critical. Safe Roads are established with proven countermeasures that anticipates driver error and unsafe behavior that increase the likelihood of a lane departure fatality, such as impairment, not wearing a seat belt, and speeding. A Safe Road means that when a vehicle leaves the lane, the road design and countermeasures applied prevent a fatality or serious injury.

[26] https://safety.fhwa.dot.gov/roadway_dept/

Lane Departures



These emphasis areas are the top overlaps with Lane Departure fatalities:



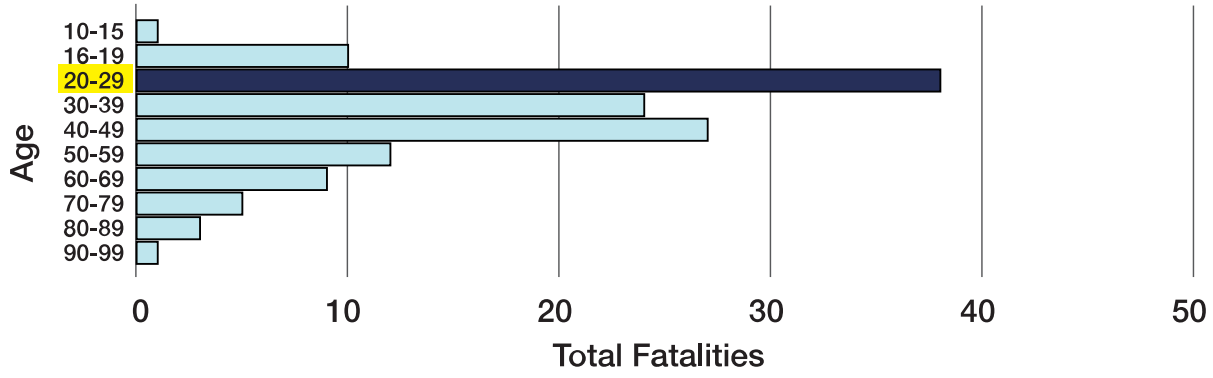
Speed 47%

Impaired Driving 38%

Occupant Protection 33%

Overall, 56% of all fatalities are Lane Departure related (2017-2021).

Lane Departure Fatalities by Age



55%

OF LANE DEPARTURE FATALITIES ARE MALES BETWEEN 20-49 YEARS OLD, OF WHICH 50% HAVE A BAC 0.08+

LANE DEPARTURE FATALITIES ARE DISTRIBUTED ACROSS ALL FUNCTIONAL ROADWAY CLASSES

TOP 5 LOCATIONS FOR LANE DEPARTURE FATALITIES: PROVIDENCE, WARWICK, CRANSTON, PAWTUCKET, & COVENTRY

STRATEGIES AND ACTIONS

Responsible Partners:

- HSIP Committee
- OHS
- RIDOT
- RI DMV
- Rhode Island Traffic Tribunal
- Local Departments of Public Works
- Rhode Island Police Chiefs Association

Strategy /Action	*Timeline*
Leadership	
Maintain the HSIP Committee to support the implementation of lane departure strategies and the implementation of this SHSP.	
» Continue to build relationships with local governments, cities, and towns to support safety improvements on local roads.	Ongoing
Continue to build and maintain relationships with local partners to support engineering safety improvements outside of state jurisdiction.	
» Work with cities and towns to support safety improvement implementation. Consider programs such as Safe Streets for All, which can help localities fund planning and implementation for safety improvements.[27] The Implementation section of this Plan details a range of opportunities that this grant program could support.	Ongoing
Education	
Utilize everyday touchpoints with drivers and traveler to provide re-education message (e.g., intersection/roundabout operations, interactions between various modes/vehicles, traffic laws).	
» Consider pamphlets with paper license renewals or registrations, or pop-up "quizzes" with online renewals as examples.	2-3 years
Implement a written test during driver license renewals that include intersection safety issues and laws.	

[27] https://www.transportation.gov/grants/SS4A

Reach all road users through media campaigns.

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

- » Expand use of more reliable extrication tools such as portable battery-operated equipment. — 0-1 years
- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. — 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. — Ongoing
- » Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. — 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. — 0-1 years
- » Identify a data platform agreeable to all partners. — 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Identify target locations with a combination of high lane departure crash occurrence and noted driver behavior issues, primarily speeding, and enforce those behaviors.

Engineering

Implement the Safe System approach principle of Safe Speeds and Safe Roads through lane departure countermeasures.

» Continue the deployment of proven safety countermeasures (e.g., rumble strips, barriers).	Ongoing
» Promote, design, and maintain infrastructure for emerging vehicle technologies to keep vehicles in their lane.	Ongoing
» Maintain program of road safety assessments for detailed site reviews for both systemic and targeted safety challenges.	Ongoing
» Maintain and enhance established systemic roadway safety improvement programs, which include the Safety Corridor Program, the Roadway Departure Mitigation Program, and the Vulnerable Road User Program.	Ongoing

Revisit design standards for accommodation of all users, where feasible.

» Continue to consider Complete Streets principles for all design projects.	Ongoing

Evaluate the safety effectiveness of completed lane departure projects and countermeasures.

» Develop state-specific SPFs and CMFs.	Ongoing

Maintain and continue to enhance databases and digital inventories of crashes, infrastructure, and transportation features.

» Continue to use databases and digital inventories to inform systemic countermeasure implementation.	Ongoing

WORK ZONES

Source: RIDOT


ROAD
WORK
AHEAD

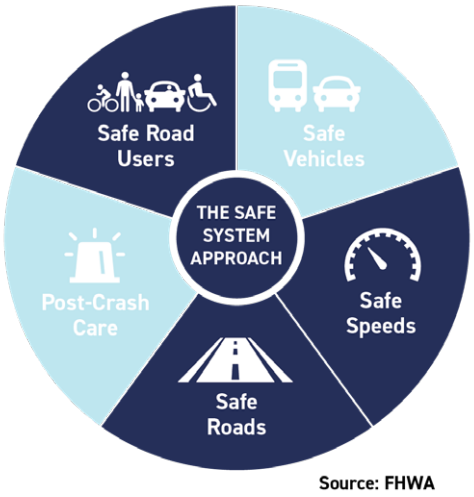
WORK ZONES

Definition: A work zone crash is any crash caused by a section of roadway marked for construction, maintenance, or utility work.

In a work zone, the roadway configuration and operations are temporarily altered and may be drastically different (e.g., unexpected queues). Speed limits are often reduced to account for the change in configuration, and workers can be in close proximity to traffic. These factors create a roadway environment that can be unexpected to a driver and result in a fatal collision. Capturing work zone crash data can be difficult because a crash may occur outside of work zone limits but is a ***result*** of the work zone. From 2017-2020, there were five reported work zone-related fatalities.

Work zone workers also need protection from vehicles operating in construction, maintenance, or utility work zones. The recently adopted a Vulnerable Roadway User Law (§ 31-15-20) updates the definition of a vulnerable road user to include a "highway worker performing duties outside of a vehicle."[28] This legislation will provide a layer of protection and hold violators accountable through fines and license suspension. Rhode Island has a strong history in delivering work zone safety training. **The training is open to the public, but is mandatory for municipal police, fire academies, and all roadway workers on state and federal projects.** To continue to promote Work Zone safety, the topic may be added to the Incident Management Task Force meetings to better identify and address problems in a formal, consistent basis.

Work zones are difficult locations to effectively enforce safe speeds. It may be dangerous for a law enforcement officer to pursue in a work zone for several reasons (e.g., congestion, temporary configuration, pavement condition, pursuit speed). To combat these issues, Rhode Island is considering the PSC speed safety cameras (SSCs) and variable speed limits (VSLs). SSCs are a form of automated enforcement that can be applied at work zones. VSLs set speed limits based on changing roadway conditions. VSLs can improve driver expectations by providing information in advance of work zones, slowdowns, and lane closures, which could reduce the probability for secondary crashes.

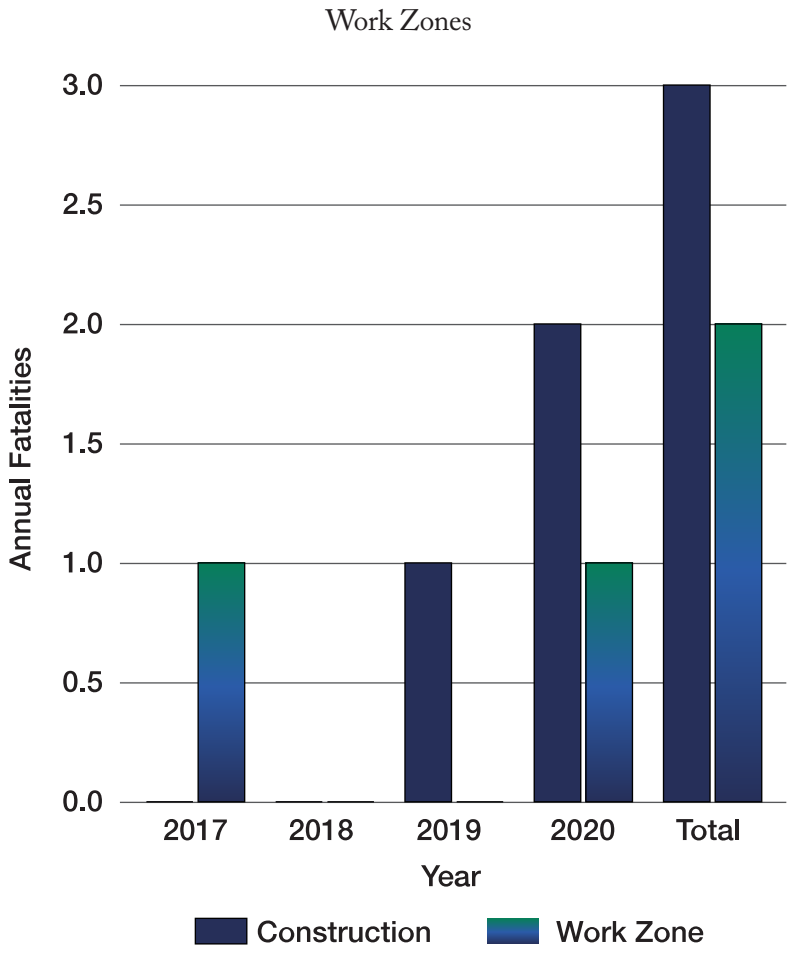


Source: FHWA

Work Zones may increase the risk of crashes with excessive vehicle speeds and roads that are not in their final setting, so traditional countermeasures may not apply. Creating Safe Speeds and Safe Road Users can be accomplished by enforcing speeds and raising awareness of the roadway changes (through media campaigns, training for workers, and automated enforcement). Rhode Island is a leader in work zone training and will continue its effort to develop Safe Road Users.

RIDOT supports work zone messaging and often aligns with national work zone safe messaging and media campaigns.

[28] http://webserver.rilin.state.ri.us/Statutes/TITLE31/31-15/31-15-20.htm



Work zone crash data is limited. Rhode Island continues to work toward data improvements in this Emphasis Area.

STRATEGIES AND ACTIONS

Responsible Partners:

- Traffic Incident Management Task Force
- OHS
- RIDOT
- RI DMV
- Rhode Island Traffic Tribunal
- Local Departments of Public Works
- Rhode Island Police Chiefs Association

Strategy /Action	*Timeline*
Leadership	
Leverage the existing Traffic Incident Management Task Force to discuss work zone issues.	
Define work zone crashes and better capture crashes occurring not only in work zones, but because of work zones.	
Discuss legislation concerning automated speed enforcement in work zones.	
Education	
Develop educational materials and media messaging for travelers specific to work zone operations, regulations, and conditions.	
» Continue to support national work zone safety messaging, media campaigns, and schedules.	Ongoing
EMS	
Minimize response time and time from crash to medical treatment to improve injury outcomes.	
» Expand use of more reliable extrication tools such as portable battery-operated equipment.	0-1 years
» Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc.	1-3 years
» Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process.	Ongoing
» Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access.	1-3 years
Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.	

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. 0-1 years
- » Identify a data platform agreeable to all partners. 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Increase awareness and delivery of the existing work zone safety training, which is open to law enforcement officers, fire departments, EMS, workers, and civilians.

Continue and expand the TIM Training Program.

Engineering

Improve work zone safety and processes/requirements.

- » Revisit and improve upon engineering specifications and requirements concerning traffic control in work zones. 2-3 years
- » Install adequate illumination in work zones. Ongoing
- » Implement variable speed limits in work zones. 2-3 years
- » Train RIDOT field staff on the key safety features and challenges of work zones. Assess site conditions as needed. 1-3 years
- » Establish and expand inspections of work zones. 0-1 years

Source: RI DOT

ROAD USERS

YOUNGER DRIVERS
OLDER DRIVERS
MOTORCYCLISTS
PEDESTRIANS
CYCLISTS

ROAD USERS FOCUS AREA

The Road Users Focus Area targets road users who may have a higher risk of experiencing a roadway fatality or serious injury. Emphasis Areas include Younger Drivers, Older Drivers, Motorcyclists, Pedestrians, and Cyclists. Each of these road user groups has their own unique needs—Younger Drivers lack experience on the roadway and are learning the rules of the road; Older Drivers may need refresher training on new vehicle technology; Motorcyclists need the helmet law defended; and Pedestrians and Cyclists are less protected and more susceptible to fatalities and serious injuries when a collision occurs with a motor vehicle. While each road user has their own unique risks, they share a common theme of a need for education. Education strategies are the most prevalent strategies within this Focus Area. The education strategies focus on providing education both for the particular road user group and for other drivers who may interact with that group.

Education strategies cannot stand alone. The Emphasis Areas within the Road Users Focus Area also rely strongly on EMS, Enforcement, and Engineering strategies to reduce fatalities and serious injuries. For example, expanding EMS services improves injury outcomes for road users. Enforcement efforts, like conducting high-visibility enforcement tied with educational programs also informs all road users on avoiding risky behaviors.

In 2021, Rhode Island passed legislation to protect vulnerable users. **The Rhode Island Bicycle Coalition-supported bill defines a vulnerable user as a pedestrian; a bicyclist; a police officer or emergency worker on duty when outside of a vehicle; a highway worker performing duties outside of a vehicle; a person riding on or driving a wheelchair, motorized or not; a person using a skateboard, inline skate, or roller skates; a person riding on or driving an animal; or a person riding on a scooter.**

YOUNGER DRIVERS

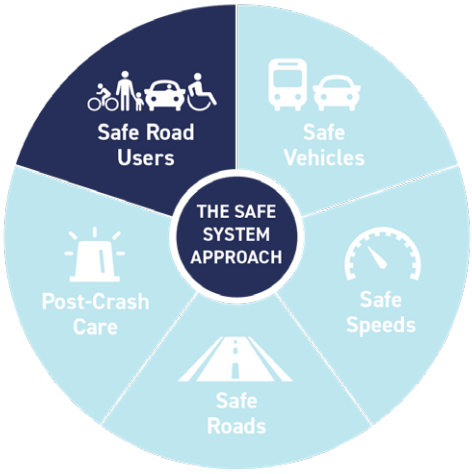
Definition: Any crash involving a driver between the ages of 16 and 20.

Younger driver crashes involve drivers who are between the ages of 16 and 20. Between 2017 to 2021, approximately 13% of all roadway fatalities involved younger drivers. During this time period the total number of fatalities fluctuated with a high of 12 fatalities in 2018 and a low of 3 fatalities in 2019. Fatalities increased again in 2020 and 2021 to 10 and 8, respectively. Lane departure and speed-related crashes are overrepresented with young driver crashes—68% of younger driver crashes involved lane departure and 50% involved speeding.

Rhode Island continues to maintain a strong Graduated Driver Licensing (GDL) Law with a phased approach to driving privileges. However, the GDL restricts nighttime driving between 1 am and 5 am yet 31% of the younger driver-related crashes occur between 12 am and 6 am. Several programs, like Youth Driven[29] and AAA's Shifting Gears Programs[30] both continue to educate younger drivers but were challenged to deliver in a virtual setting while schools were remote during the pandemic.

CCRI is a strong partner in delivering education for younger drivers. OHS is developing a portal for parents of younger drivers taking driver education classes. The portal will contain information on the GDL and other relevant laws and regulations useful for both new drivers and their parents or guardians as driving culture and experiences have changed over the years. Recommendations from the 2022 NHTSA Driver's Education Assessment placed an emphasis on the importance of engaging parents and guardians in the teen driver educate process to education young drivers on the importance of transportation safety.

CCRI driver's education courses are also going to expand to include a program for first responders to speak with the students on the importance of road safety and build trust between drivers and law enforcement. Rhode Island has also prepared education materials related to marijuana use and driving as it is an emerging issue in the state and legalized in surrounding states. Younger driver education will continue to lay the groundwork for establishing a culture of safety across the state by engaging future drivers early and often.



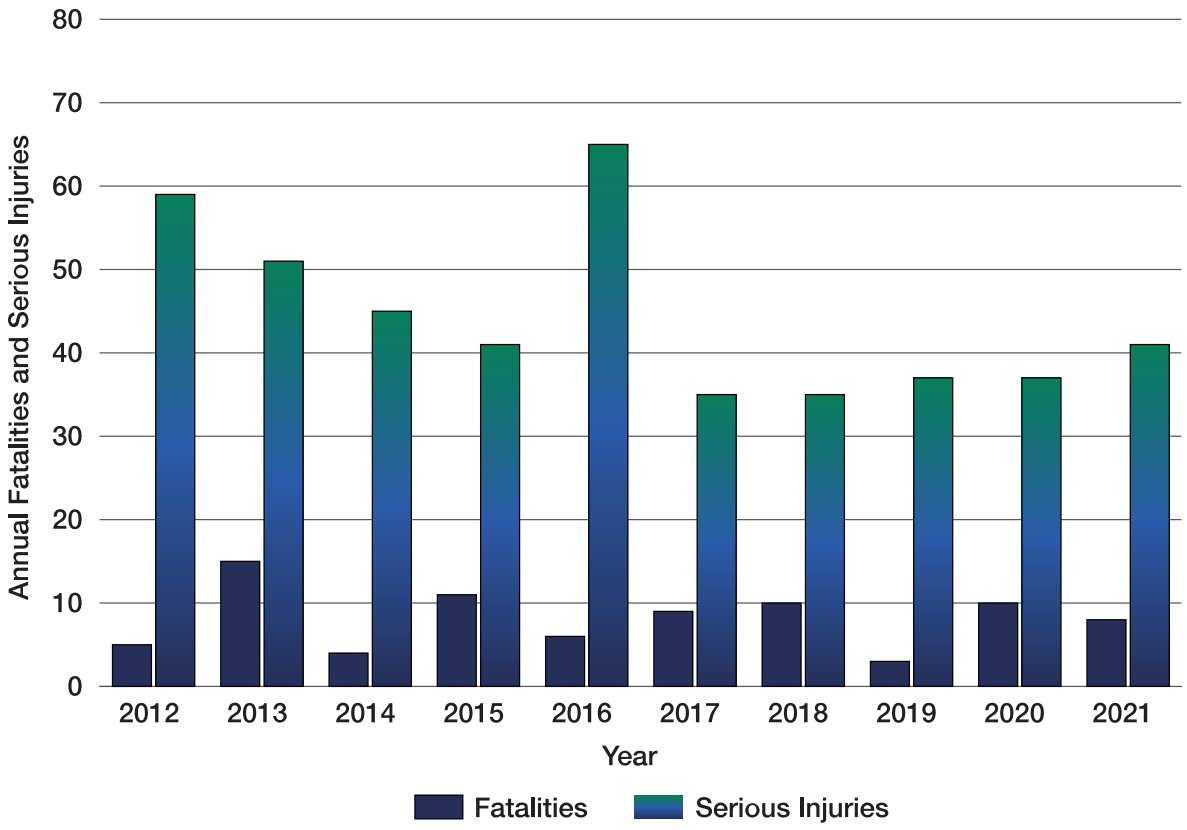
Source: FHWA

Strategies for younger drivers addresses the Safe Road Users element of the Safe System approach. Education provides emerging drivers information they need to understand the roadway designs and signage, laws, and influences on their behavior. This is a proactive approach and is a shared responsibility between educators, parents and guardians, enforcement, and drivers.

[29] https://www.youthdriven.org/

[30] https://northeast.aaa.com/community/Shifting-Gears/Overview.html

Younger Drivers



These emphasis areas are the top overlaps with Younger Driver fatalities:

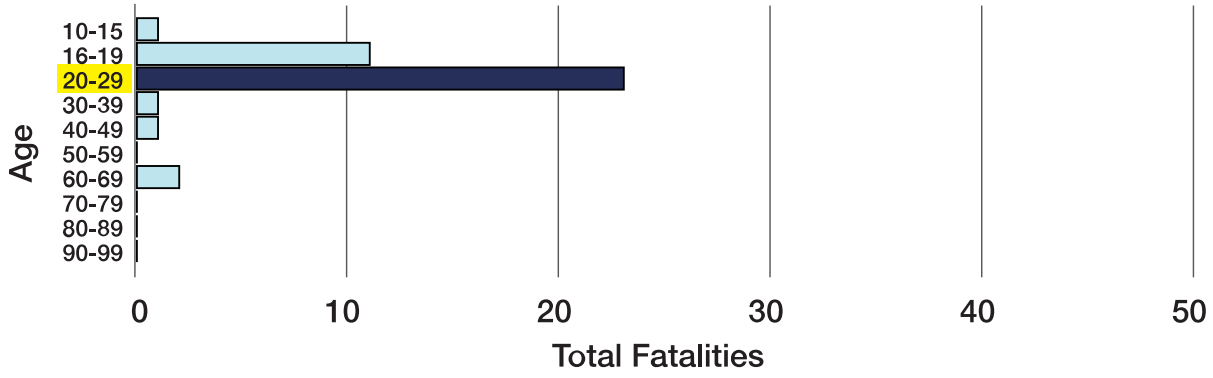
Lane Departure 64%

Speed 48%

Occupant Protection 33%

Overall, 13% of all fatalities are Younger Driver related (2017-2021).

Younger Drivers Fatalities by Age



66%

OF YOUNG DRIVERS FATALITIES INVOLVED MALE DRIVERS

31%

OF YOUNG DRIVER FATALITIES OCCURRED BETWEEN 12AM – 6AM

STRATEGIES AND ACTIONS

Responsible Partners:

- Younger Driver Task Force
- OHS
- RIDOT
- RI DMV
- Rhode Island Traffic Tribunal
- Local Departments of Public Works
- Rhode Island Police Chiefs Association
- Community College of Rhode Island
- AAA

Strategy /Action	*Timeline*
Leadership	
Maintain the Younger Driver Task Force to champion the implementation of this SHSP.	
» Encourage collaboration between younger driver programs in the state.	Ongoing
» Expand funding by seeking funding opportunities and support agencies to apply for project funding.	0-1 years
» Improve data regarding younger drivers by continuing to support and use the results for the biannual Youth Risk Behavior Survey when planning programs.	2-3 years
» Continue development of the Younger Driver Plan.	Ongoing
Education	
Continue to improve upon Younger Driver education programs and increase collaboration between all younger driver education programs in the state.	
» Implement an educational program about law enforcement, EMS, and fire departments to present during Driver's Education classes.	1-3 years
» Create and promote the Parent Portal providing resources for parents of teens learning to drive. Provide ongoing maintenance to ensure user-friendly operations and resources that remain current and relevant.	0-1 years
» Promote use of a Parent-Teen Driver Agreement to families with teens learning to drive. Provide parents/guardians of driver's education students with access to a sample Parent-Teen Driving Agreement.	0-1 years
» Require driver education providers to inform parents/guardians of their teen's progress throughout the driver education course and receive a post-course final assessment report that informs them of the progress and proficiency of their teen driver.	1-3 years

» Expand the accessibility of driver's education classes (e.g., virtual, in-person, class locations, class times). — Ongoing

Expand provisions of GDL to meet NHTSA's criteria for incentive funds, such as Section 405(g), available to support young driver programs.[31]

Enhance re-education for youth with previous traffic safety law offenses.

Reach young drivers and future drivers through media campaigns.

» Develop younger driver safety messaging and media campaigns focused on platforms most visible to young drivers. — Ongoing

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

» Expand use of more reliable extrication tools such as portable battery-operated equipment. — 0-1 years

» Unify data systems to streamline the flow and accuracy of data between dispatchers, responders, medical personnel, etc. — 1-3 years

» Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. — Ongoing

» Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. — 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

» Identify necessary interagency agreements. — 0-1 years

» Identify a data platform agreeable to all partners. — 1-3 years

[31] https://www.ghsa.org/about/federal-grant-programs/405

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Develop data-informed, targeted enforcement programs geared toward young drivers.

» Review young driver citation data to inform targeted enforcement activities in alignment with the NHTSA calendar (e.g., awareness campaigns, safety topic months or weeks).	Ongoing

Engineering

Implement the Safe System approach element of Safe Road Users through equitable infrastructure improvements.

» Implement countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a serious injury or fatality.	Ongoing
» Conduct safety field reviews in geographic areas or along corridors with high frequencies of younger drivers crashes and implement engineering solutions noted in other strategies.	Ongoing

OLDER DRIVERS

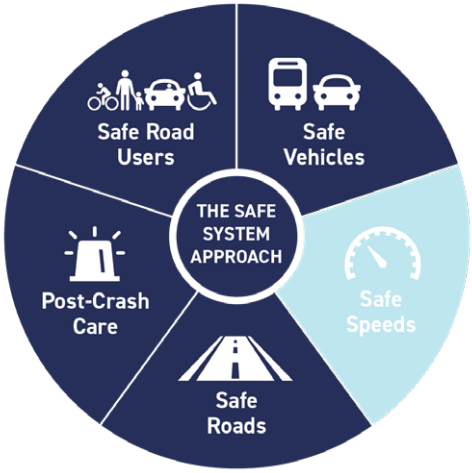
OLDER DRIVERS

Definition: Any crash involving a driver over the age 65 or older.

Older driver crashes involve drivers who are 65 and over. Between 2017 to 2021, approximately 18% of all roadway fatalities involved older drivers. During this time period the total number of fatalities was nearly flat with the exception of a low of 5 fatalities in 2021. Of the older driver crashes, 38% involve a lane departure crash. There is also an increasing overlap between pedestrian and bicycle fatalities and older drivers with more than 20% of pedestrian or cyclist fatalities involving an older driver (2017-2021).

Over the past 5 years, Rhode Island was able to maintain many programs aimed at reaching older drivers despite the challenging years. CarFit partnered with AAA to provide hands-on assistance in adjusting seat belts, mirrors, and the distance to the steering wheel to ensure proper fits. The Smarter Driving Tech program educates drivers on the new safety features available in new model vehicles, addressing an important gap in driver experience and emerging in-vehicle technologies. Beyond services directed at providing up-to-date training to aging drivers, two programs continued to assist families and physicians to phase adults out of driving. AARP's We Need To Talk offers guidance to families facing the difficult conversation of limiting or stopping an individual from driving.[32] AARP also partnered with AAA on the ReTiming program; an e-learning module aimed at adults with older parents interested in the same discussion. Both programs were pleased with the engagement through a virtual setting; Rhode Island should continue to offer in-person events for older adults to meet their preferences and needs.

With the rise in overlap between older drivers and pedestrians, Rhode Island efforts can focus on expanding pedestrian-related laws, behaviors, and safety issues to older drivers. Rhode Island hospitals are conducting an effort on older adult pedestrian safety with a review of trauma center data to assess injury outcomes coupled with outreach to primary care physicians and expanding education in libraries and senior centers. Continued dissemination and expansion of these education efforts addresses safety for older adults as both drivers and pedestrians. Programs addressing the issue of stopping driving can provide more guidance on requesting a driver assessment for an individual. Additionally, a driver's education refresher course may be a useful component of the assessment or general approach to Rhode Island to disseminate updated laws and education on infrastructure to adults without experience with the emerging trends. This could be coupled with an AARP course on driver safety. AAA and other partners are working on developing more outreach on alternative transportation options for older adults no longer able to drive, individuals with disabilities, and other non-driving populations.



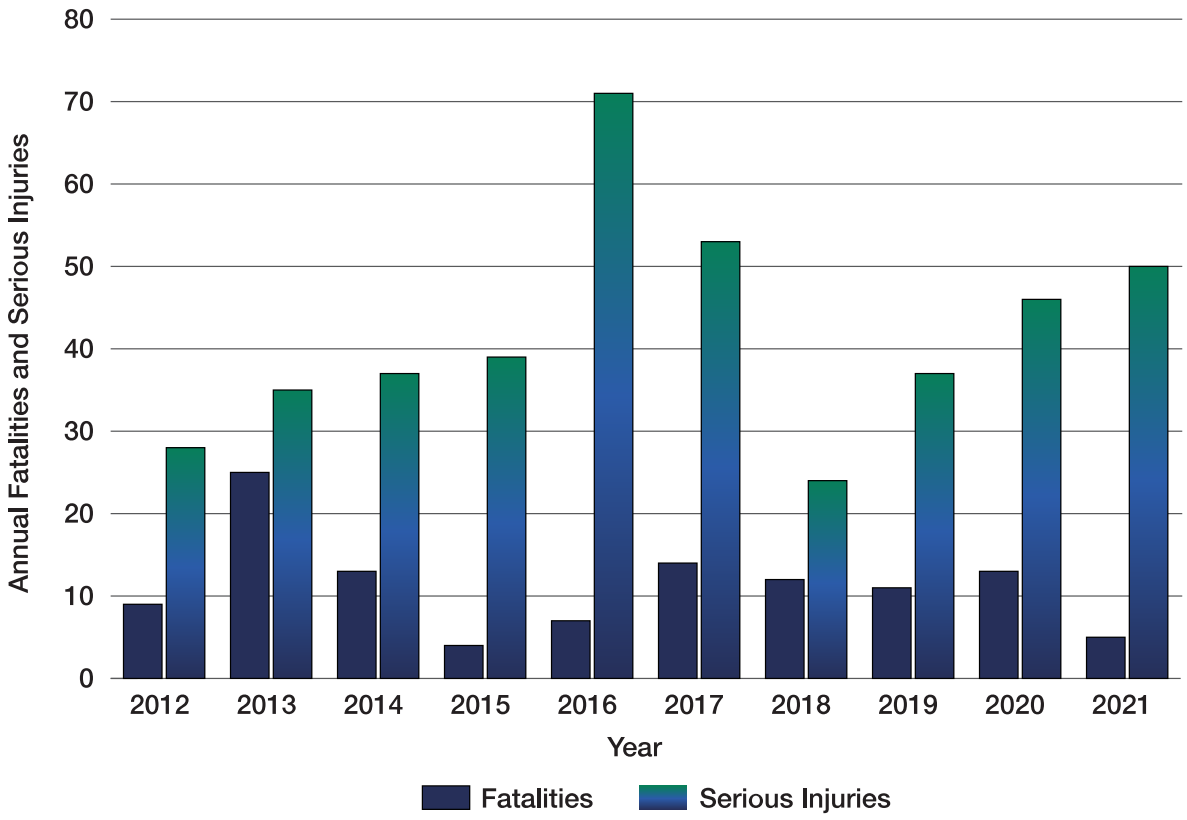
Source: FHWA

Strategies for older drivers addresses the Safe Road Users element of the Safe System approach. Education provides emerging drivers information they need to understand the roadway designs and signage, laws, and influences on their behavior. This is a proactive approach and is a shared responsibility between educators, enforcement, and drivers.

This Emphasis Area also addresses Safe Vehicles and the necessary training to educate all drivers on the in-vehicle technologies. Post-Crash Care is another Safe System approach element, connecting trauma and law enforcement with physicians and drivers no longer capable of safe driving. Strategies may also connect with the Safe Roads element, as infrastructure such as signage may assist older drivers with wayfinding.

[32] https://www.aarp.org/auto/driver-safety/we-need-to-talk/

Older Drivers



These emphasis areas are the top overlaps with Older Driver fatalities:

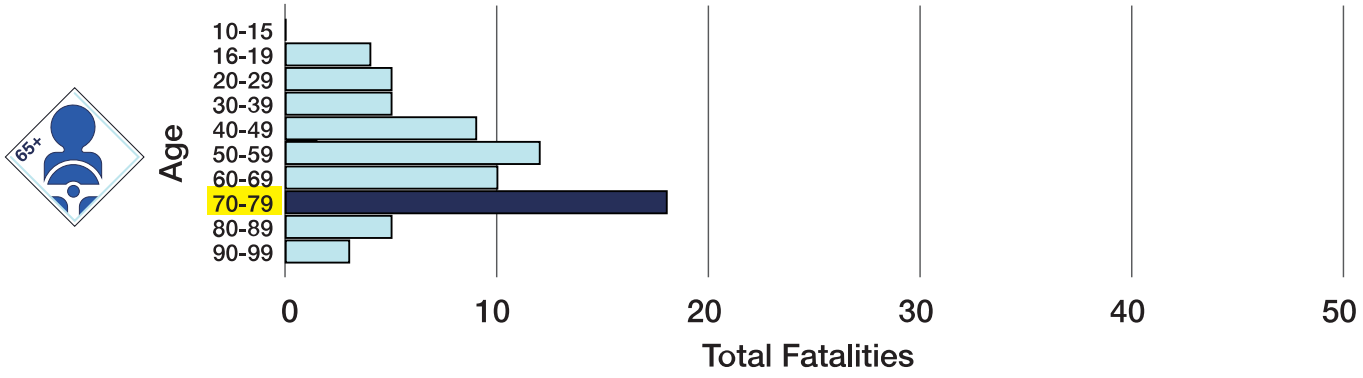
Lane Departure 36%

Intersection 31%

Pedestrian-related 22%

Overall, 18% of all fatalities are Older Driver related (2017-2021).

Older Drivers Fatalities by Age



10%
OF OLDER DRIVER FATALITIES OCCURRED ON THE INTERSTATE

83%
OF OLDER DRIVER FATALITIES OCCURRED BETWEEN 9:00AM-9:00PM

TOP 5 LOCATIONS FOR OLDER DRIVER FATALITIES: WARWICK, EAST PROVIDENCE, CUMBERLAND, FOSTER, & SMITHFIELD

28%
OF OLDER DRIVER FATALITIES OCCURRED ON RURAL ROADS

STRATEGIES AND ACTIONS

Responsible Partners:

- Older Driver Task Force
- OHS
- RIDOT
- RI DMV
- Rhode Island Traffic Tribunal
- Local Departments of Public Works
- Rhode Island Police Chiefs Association
- Community College of Rhode Island
- AAA
- AARP-Rhode Island

Strategy /Action	*Timeline*
Leadership	
Maintain the Older Driver Task Force to champion the implementation of this SHSP.	
» Seek funding opportunities and support agencies who apply for project funding.	0-1 years
» Create and administer a survey for older drivers to assess the transportation needs of this demographic.	0-1 years
Education	
Continue to offer educational programs supporting older drivers.	
» Maintain programs such as the Car Fit Program,[33] the Smart Tech Program,[34] the We Need to Talk Seminar,[35] and the Retiming Program.	Ongoing
» Catalog all existing older driver educational programs in the state.	0-1 years
Support outreach and resource development for older drivers to provide information concerning their changing driver needs and alternative transportation options.	
» Expand web-based and app-based resources to provide a wider range of trip planning resources for older drivers including options across various modes and behavioral health information related to driving.	0-1 years
» Increase and promote alternative transportation options (e.g., rideshare, public transit) to accommodate the needs of older pedestrians that are no longer able to drive.	Ongoing
» Create a webinar series for senior citizen groups about senior mobility.	2-3 years

[33] https://www.aarp.org/auto/driver-safety/info-2010/carfit-exam-checklist.html

[34] https://www.aarp.org/benefits-discounts/all/smart-driver-tek/

[35] https://www.aarp.org/auto/driver-safety/we-need-to-talk/

- » Create educational material geared toward safe walking practices and pedestrian-vehicle interactions. — 2-3 years
- » Create older driver traffic safety curriculum that law enforcement and community leaders can use in their community. — 4-5 years

» Use everyday touchpoints with drivers and travelers to provide re-education messages (e.g., intersection/roundabout operations, interactions between various modes/vehicles, traffic laws).

- » Consider pamphlets with paper license renewals or registrations, or pop-up "quizzes" with online renewals as examples. — 2-3 years

» Reach older drivers and future drivers through media campaigns.

- » Develop older driver safety messaging and media campaigns focused on platforms most visible to older drivers. — Ongoing

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

- » Expand use of more reliable extrication tools such as portable battery-operated equipment. — 0-1 years
- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. — 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. — Ongoing
- » Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. — 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. — 0-1 years
- » Identify a data platform agreeable to all partners. — 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Improve reporting for at-risk drivers by educating physicians, law enforcement, and the public (family or friends) on the law and ways to report.

Engineering

Implement the Safe System approach elements of Safe Roads, Safe Speeds, Safe Road Users, Safe Vehicles, and Post-Crash Care through equitable infrastructure improvements.

» Implement countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a serious injury or fatality.	Ongoing
» Conduct safety field reviews in geographic areas or along corridors with a history of older drivers crashes and implement engineering solutions noted in other strategies.	Ongoing
» Identify and implement countermeasures to accommodate the needs of older drivers, including those related to roadway design and signage.	Ongoing

MOTORCYCLISTS

Source: Shutterstock

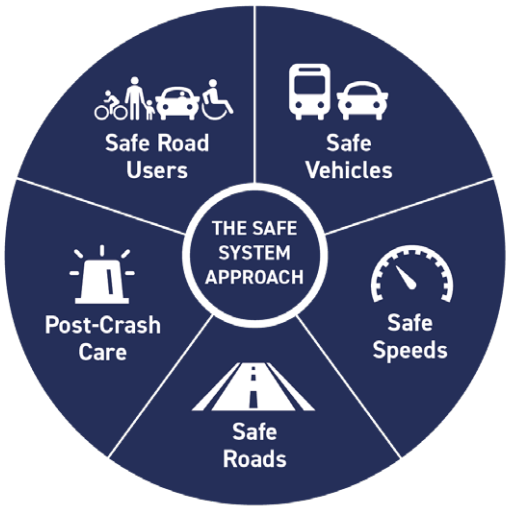
MOTORCYCLISTS

Definition: Any crash that involves a vehicle that was a motorcycle.

Motorcycle crashes are any crash in which a motorcycle is involved. Between 2017 to 2021, approximately 21% of all roadway fatalities involved a motorcycle and 8% involved an unhelmeted motorcyclist. Of the motorcycle-related crashes, 57% were lane departure-involved and 52% were speed-involved. There is also an increasing overlap between motorcycle crashes and impairment. Other reasons or causations on crash reports include inexperience, speeding, recklessness, and failure to navigate turns.[36] Motorcycle crashes are often seasonal and occur primarily in the spring and summer months, peaking in June when 20% of the crashes occur.

Rhode Island continues to explore expanding the current motorcycle helmet use law, which covers all passengers (regardless of age), all operators during their first year of licensure (regardless of age), and all operators under 21 years of age. The best opportunity for improving safety is rider training. AAA partners with CCRI to offer licensing and rider training classes. The courses are continually at capacity so in the coming years, the program can explore expanding to satellite sites to reach more riders. Retirees are another potential audience as they return to riding for pleasure, as opposed to commuting, and may benefit from refresher courses.

All roadway users have a shared responsibility for the other users. Driver's education courses for younger drivers discuss sharing the road with heavy vehicles and this is an opportunity expand this topic to discuss motorcycle-specific topics such as visibility and practices when encountering a motorcyclist. Education campaigns for all motorists, particularly experienced drivers years past their driver education courses, on these topics can raise awareness and improve the roadway for all.

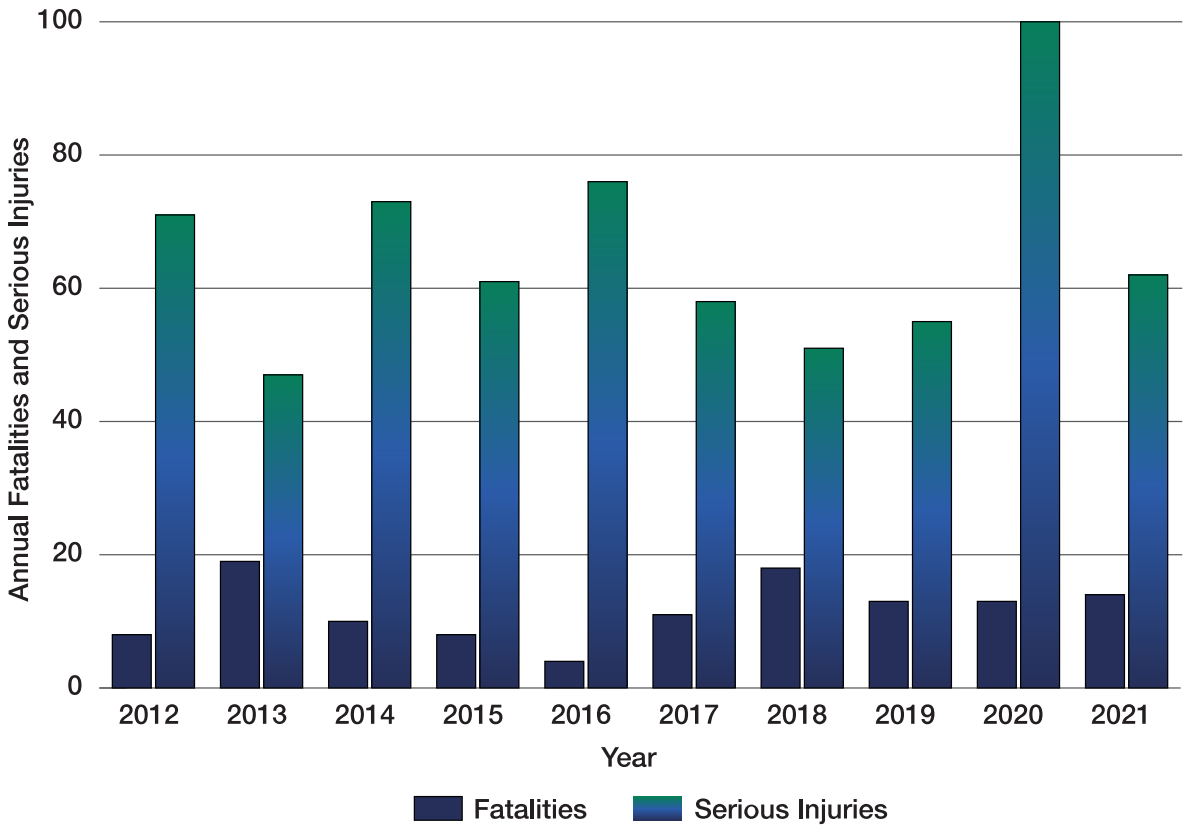


Source: FHWA

Strategies addressing motorcycle safety addresses all elements of the Safe Systems approach. Education efforts address motorcyclists by increasing awareness to all road users and new technologies alert motorists to motorcycles and increase visibility. Safer speeds reduce the severity of crashes, specifically for motorcyclists who are more vulnerable with their lack of physical protection. Maintenance practices, barrier design, and other roadside hardware design elements improve road safety by reducing the hazards for motorcycles. First responders with the tools and knowledge to properly treat motorcyclists at the scene of the crash will improve post-crash care.

[36] http://www.dot.ri.gov/Safety/docs/Highway_Safety_Performance_Plan.pdf

Motorcyclists



These emphasis areas are the top overlaps with Motorcyclist fatalities:

Lane Departure 57%

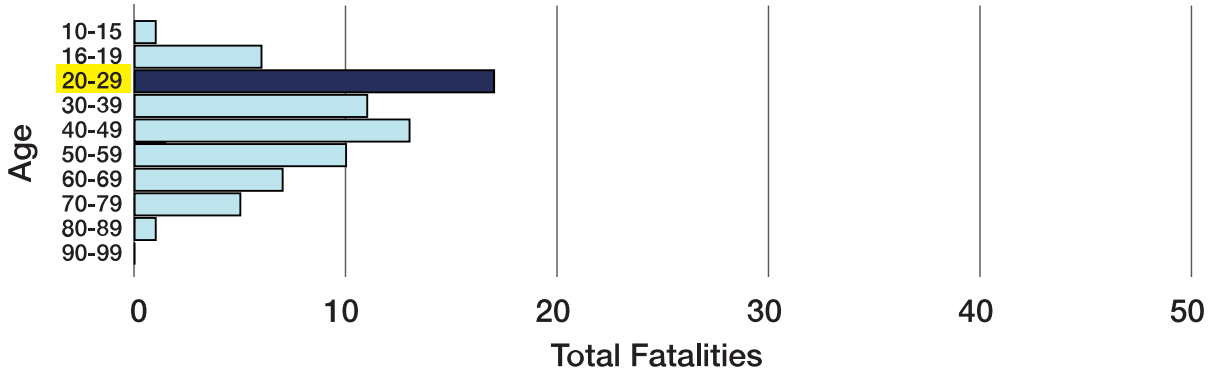
Speed 52%

Impaired Driving 36%

Intersections 30%

Overall, 21% of all fatalities are Motorcyclists related (2017-2021).

Motorcyclist Fatalities by Age



47%

OF MOTORCYCLIST FATALITIES OCCURRED BETWEEN 3:00PM-9:00PM

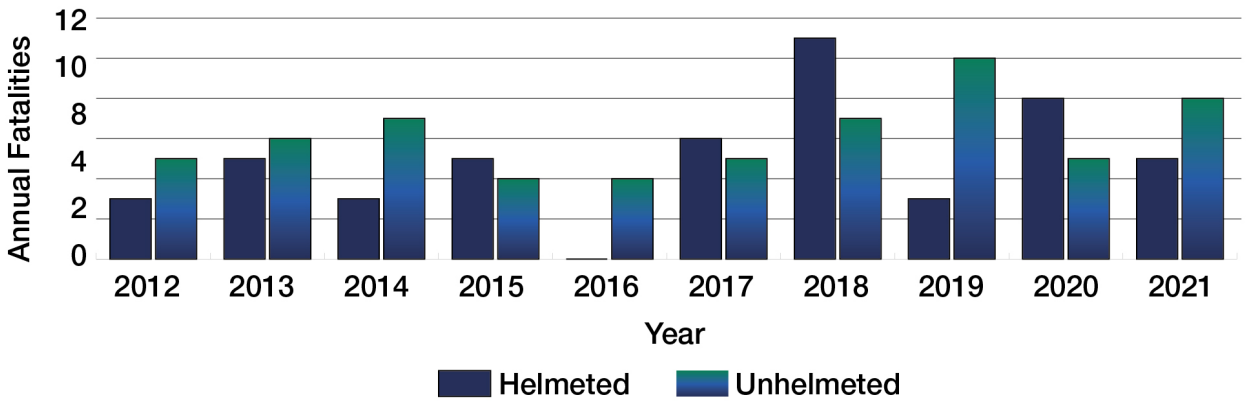
75%

OF MOTORCYCLIST FATALITIES OCCURRED BETWEEN MAY - SEPTEMBER

43%

OF MOTORCYCLIST FATALITIES OCCURRED IN: PROVIDENCE, PAWTUCKET, WARWICK, & JOHNSTON

Motorcyclist Helmet Use



HELMETS SAVED THE LIVES OF 1,872 MOTORCYCLISTS IN 2017. IF ALL MOTORCYCLISTS HAD WORN HELMETS, AN ADDITIONAL 749 LIVES COULD HAVE BEEN SAVED

HELMETS ARE 37% EFFECTIVE IN PREVENTING MOTORCYCLE-RIDER FATALITIES AND 41% EFFECTIVE FOR MOTORCYCLE PASSENGERS

Motorcycle riding, while enjoyable, comes with certain risks. Motorcyclists are vulnerable to injury because motorcycles provide little to no protection in a crash (NHTSA, n.d.a.). Helmets have been proven to reduce the severity of a head injury in a crash. In states without universal helmet laws, 57% of motorcyclists killed in 2020 were not wearing helmets, as compared to 11% in states with universal helmet laws (NHTSA, 2022). In Rhode Island, 50 percent of motorcycle fatalities in the last five years were unhelmeted riders.

STRATEGIES AND ACTIONS

Responsible Partners:

- Motorcycle Task Force
- OHS
- RIDOT
- RI DMV
- Law Enforcement Agencies
- Rhode Island Traffic Tribunal
- Local Departments of Public Works
- Rhode Island Police Chiefs Association
- Community College of Rhode Island

Strategy /Action	*Timeline*
Leadership	
Establish and maintain a Motorcycle Task Force to champion the implementation of this SHSP.	
» Seek funding opportunities and support agencies applying for project funding.	1-3 years
» Support legislation for an expanded helmet law for motorcyclists over 21 years old and past their first year of licensure.	1-3 years
Education	
Promote and enhance motorcycle training courses.	
» Expand motorcycle licensure classes (beginner and advanced) to accommodate the increasing demand.	1-3 years
Use everyday touchpoints with drivers and travelers to provide re-education messages (e.g., intersection/roundabout operations, interactions between various modes/vehicles, traffic laws).	
» Consider pamphlets with paper license renewals or registrations, or pop-up "quizzes" with online renewals as examples.	1-3 years
Reach drivers and motorcyclists through media campaigns specific to motorcyclists.	
» Develop motorcycle safety messaging and media campaigns with some focus on platforms most visible to motorcyclists.	Ongoing
EMS	
Minimize response time and time from crash to medical treatment to improve injury outcomes.	
» Expand use of more reliable extrication tools such as portable battery-operated equipment.	0-1 years

- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. — 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. — Ongoing
- » Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. — 1-3 years
- » Provide training on treatments pertinent to motorcycle injuries. — 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. — 0-1 years
- » Identify a data platform agreeable to all partners. — 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Conduct high-visibility enforcement in coordination with RIDOT media messaging regarding motorcyclist safety.

- » Use crash history and citation data to inform enforcement activities. — Ongoing

Engineering

Implement the Safe System approach principles of Safe Road Users, Safe Vehicles, Safe Speeds, Safe Roads, and Post-Crash Care through equitable roadway improvements.

- » Implement countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a serious injury or fatality. — Ongoing
- » Conduct safety field reviews in geographic areas or along corridors with high frequencies of older drivers crashes and implement engineering solutions noted in other strategies. — Ongoing
- » Identify and implement countermeasures to accommodate the needs of motorcycle riders, which will improve safe transportation practices among all users. — Ongoing

PEDESTRIANS

Safe Streets for All (SS4A) Grant Program

FHWA recently kicked off the Safe Streets for All program. The primary goal of the SS4A grant is to improve roadway safety by supporting communities in developing comprehensive safety action plans based on a Safe System Approach, and implementing projects and strategies that significantly reduce or eliminate transportation-related fatalities and serious injuries involving pedestrians; bicyclists; public transportation, personal conveyance, and micromobility users, commercial vehicle operators; and motorists. See Implementation for additional SS4A information.

Source: Rhode Island Commerce/Visit Rhode Island

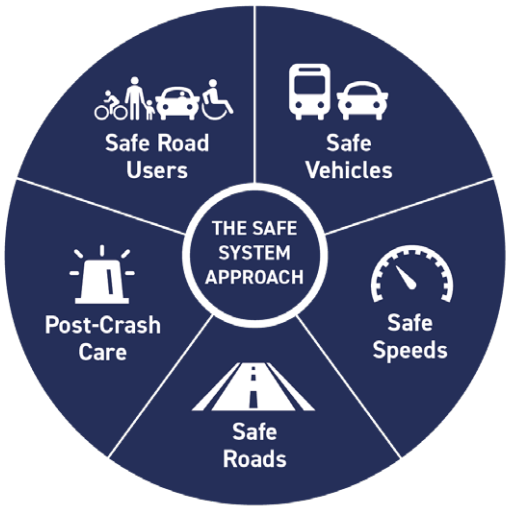
PEDESTRIANS

Definition: Any crash involving a pedestrian.

This Emphasis Area addresses crashes involving a pedestrian. Between 2017 and 2021, approximately 18% of all roadway fatalities involved a pedestrian. The highest years were 2017 with 21 pedestrian fatalities and again in 2020 with 17 pedestrian fatalities. There is an increasing overlap between pedestrian older drivers and speed-related crashes—21% of pedestrian crashes involve an older driver and 20% involve speeding.

As a result of the sharp increase of pedestrian fatalities in 2020, Rhode Island refocused the attention on pedestrian safety with programs specifically aimed at older pedestrian safety funded by the Injury Prevention Center of Rhode Island and speed safety social media campaign. Rhode Island is also developing new training for law enforcement to support the Vulnerable User Law enacted in 2021. RI Waves continued providing education in schools on looking for pedestrians and bicyclists and general focus on making the connection between infrastructure and behavior with traffic calming in residential and school zones.

Addressing pedestrian fatalities requires a multidisciplinary approach to identify the contributing factors specific to the state, but small data sets and limited resources create challenges for the state to conduct more detailed analysis. Rhode Island continues to evaluate the effectiveness of infrastructure countermeasures like pedestrian hybrid beacons. Future detailed studies may include corridor-level analysis and observational studies of mid-block crossings to understand driver and pedestrian behaviors. The average annual number of impaired pedestrian fatalities is rising, and Rhode Island will continue enforcement and education efforts to address the issue as the pedestrian volumes also continue to rise.[37]

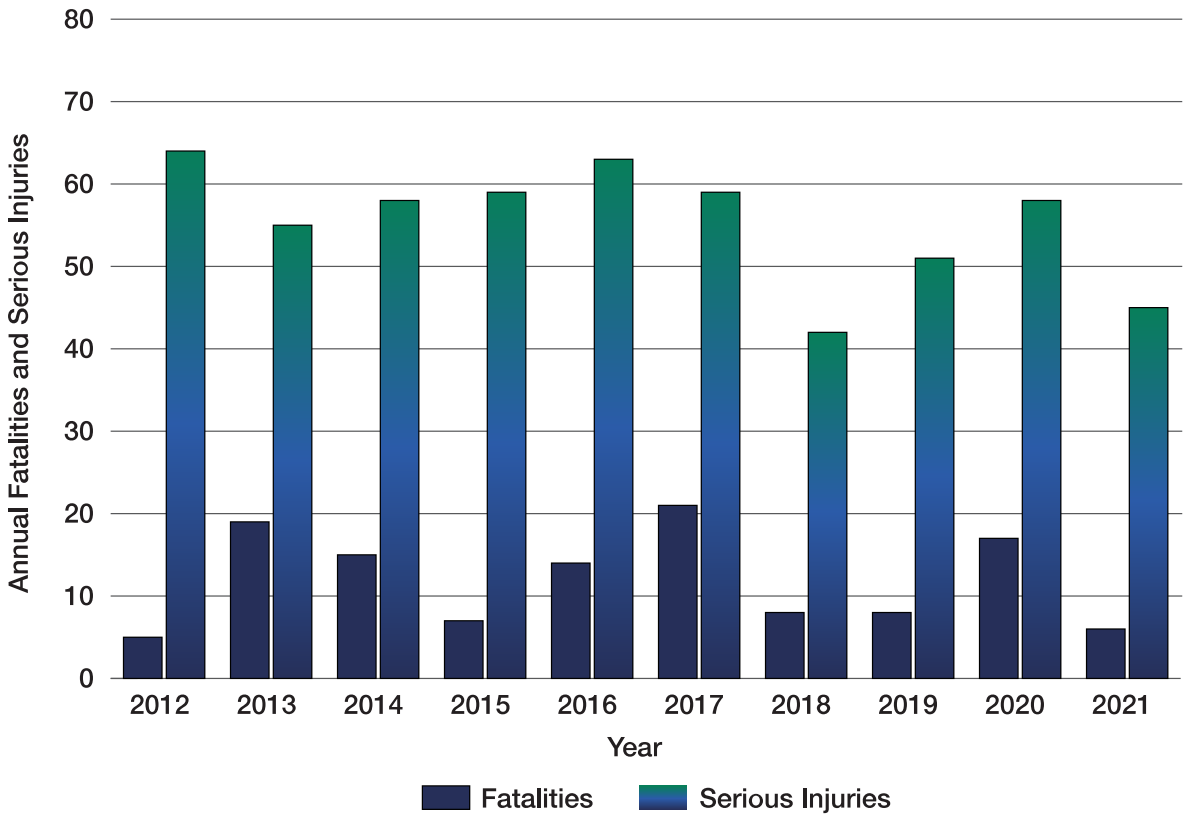


Source: FHWA

Pedestrian safety strategies address all elements of the Safe System approach. Education efforts focus on pedestrians by increasing awareness to all road users of pedestrians and new technologies alert motorists to pedestrians and increase visibility. Safer speeds reduce the severity of crashes, specifically for pedestrians who are more vulnerable with their lack of physical protection. Safer roads infrastructure for pedestrian includes signage, signals, sidewalks and pathways, and crossings that improve safety for pedestrians. First responders with the tools and knowledge to properly treat pedestrians at the scene of the crash will improve post-crash care. Post-crash care can also include data collection on near misses or hospitals treating injuries that were unreported at the time of incident enhances Rhode Island's understanding of areas of risk where pedestrians and motor vehicles interact.

[37] https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/ri_fy21_hsp.pdf

Pedestrians



These emphasis areas are the top overlaps with Pedestrian fatalities:

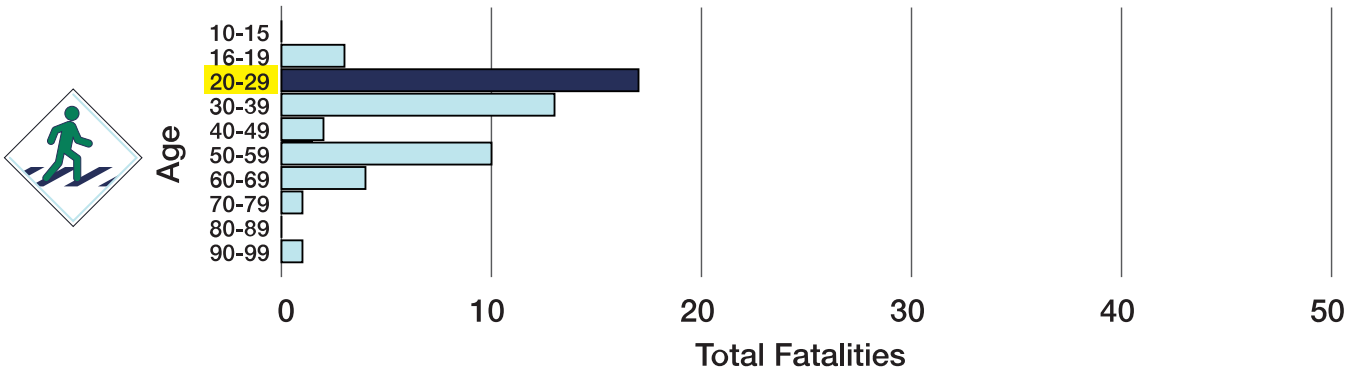
Older Driver 22%

Speed 20%

Impaired Driving 15%

Overall, 18% of all fatalities are Pedestrian related (2017-2021).

Pedestrain Fatalities by Age



48%
OF PEDESTRIAN FATALITIES ARE OVER 60 YEARS OLD

55%
OF DRIVERS INVOLVED ARE 20-39 YEAR OLD

58%
OF PEDESTRIAN FATALITIES OCCURRED IN:
PROVIDENCE (20%)
WARWICK
CRANSTON
PAWTUCKET

STRATEGIES AND ACTIONS

Responsible Partners:	
» Pedestrian Task Force	» Rhode Island Police Chiefs Association
» OHS	» Local Departments of Public Works
» RIDOT	

Strategy /Action	*Timeline*
Leadership	
Develop a Pedestrian Task Force under the Traffic Safety Coalition to champion the implementation of this SHSP.	
» Seek funding opportunities and support local agencies applying for project funding.	1-3 years
» Expand collaboration between existing education/outreach organizations and programs across the state.	0-1 years
Education	
Support educational resource development specific to pedestrian safety experience.	
» Tailor education efforts based on the behavior and interactions of pedestrians and drivers.	Ongoing
» Continue educating grade school students on how to walk along and cross the road safely and use traffic control devices.	Ongoing
» Create educational material geared toward safe walking practices and pedestrian-vehicle interactions.	1-3 years
» Increase and promote alternative transportation options (e.g., rideshare, public transit) to accommodate the needs of older pedestrians that are no longer able to drive.	Ongoing
Use everyday touchpoints with drivers and travelers to provide re-education messages (e.g., intersection/roundabout operations, interactions between various modes/vehicles, traffic laws).	
» Consider pamphlets with paper license renewals or registrations, or pop-up "quizzes" with online renewals as examples.	2-3 years

Implement a written test during driver license renewals that include pedestrian safety issues and laws.

Reach drivers and pedestrians through media campaigns specific to pedestrian safety.

- » Develop pedestrian safety messaging and media campaigns. Ongoing
- » Continue efforts to create awareness of safe pedestrian behavior using media messaging. Ongoing

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

- » Expand use of more reliable extrication tools such as portable battery-operated equipment. 0-1 years
- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. Ongoing
- » Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. 1-3 years
- » Provide training on treatments pertinent to pedestrian injuries. 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. 0-1 years
- » Identify a data platform agreeable to all partners. 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Improve data accuracy for pedestrian crashes.

» Provide crash form training with focus on pedestrian crash circumstances (e.g., did initial impact occur within or outside a crosswalk).	Ongoing

Continue training law enforcement officers on the new Vulnerable Road Users law to more accurately report crashes that include a vulnerable road user.

Engineering

Implement the Safe System approach principles of Safe Road Users, Safe Vehicles, Safe Speeds, Safe Roads, and Post-Crash Care through equitable roadway improvements.

» Implement countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a fatality or serious injury.	Ongoing
» Continue the deployment of proven safety countermeasures (e.g., pedestrian hybrid beacon [PHB], walkways, leading pedestrian interval [LPI], crosswalk visibility enhancements, road diets).	Ongoing
» Install traffic calming measures in areas with higher pedestrian activity, such as school zones and residential areas.	Ongoing
» Review crash reports to understand pedestrian crossing locations (e.g., at an intersection, marked or unmarked crossing) and install and maintain crosswalks (at intersection or midblock) where needed.	Ongoing

Revisit design standards for accommodation of all users, where feasible.

» Continue opportunities to incorporate Complete Streets principles in design projects.	Ongoing

Evaluate the safety effectiveness of completed pedestrian safety improvement projects and countermeasures.

» Continue conducting effectiveness studies of safety countermeasures, such as pedestrian hybrid beacons, to measure compliance and behaviors of all road users. Develop state-specific SPFs and CMFs.	Ongoing

CYCLISTS

Source: Shutterstock

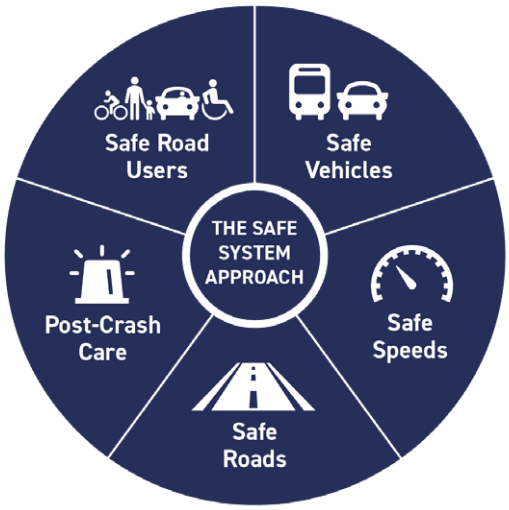
CYCLISTS

Definition: Any crash involving a cyclist.

This Emphasis Area addresses crashes involving a cyclist. Between 2017 and 2021, approximately 2% of all roadway fatalities involved a pedestrian. The number of fatalities remained flat. Cyclist crashes overlap with intersections, impairment, speed, and older drivers.

Rhode Island continued to support successful programs and media campaigns, with many successes stemming from partnerships between cycling advocacy groups and the public schools. The Rhode to Bike Safety Program provided education to 5th grade students across the state. Rhode Island piloted an innovative bicycle program with traffic gardens for children to practice on-road scenarios in an off-road setting. Future iterations could expand the program to adults and provide bicycle-related education to older drivers. The Road to Bicycle Safety program teaches younger students how to ride safely with classroom and on-bike education components—a program the state would like to expand to more schools.[38] Bike Newport established a partnership with Rhode Island public schools to provide a curriculum to physical education instructors, which also reaches the family when the students bring home the information and skills.[39]

Cyclist safety is the shared responsibility of all road users and infrastructure is one of the roadway characteristics that influences behaviors. For example, wide lanes encourage speeding while separated facilities signal to both motorists and cyclists designated travel spaces. The state fully adopted the Bicycle Mobility Plan and will continue to explore opportunities to fund implementation of the infrastructure and education strategies in the coming years. As legislation impacting cyclist behavior at intersections is explored in Rhode Island and new infrastructure designs are implemented, updates to driver's education courses can provide new drivers the needed information on interacting with cyclists.



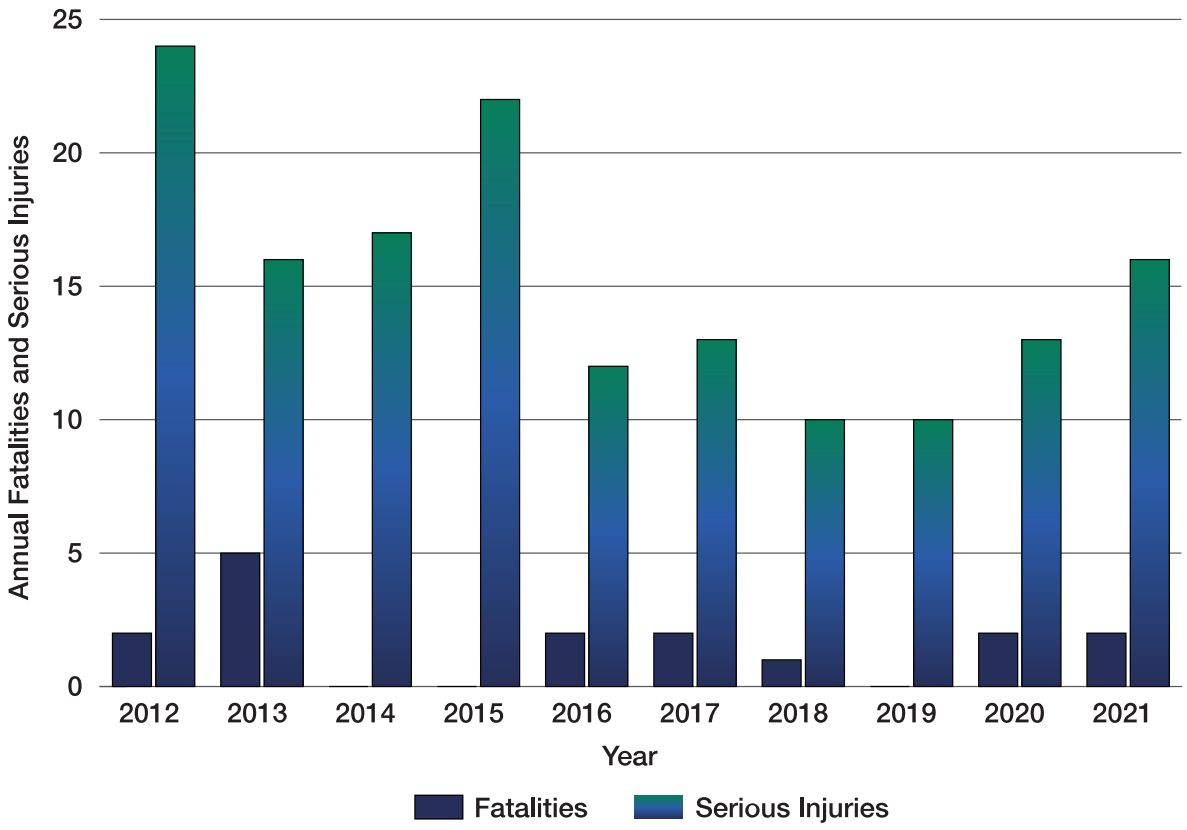
Source: FHWA

Cyclist safety strategies address all elements of the Safe System approach. Education efforts address cyclists by increasing awareness to all road users of cyclists and new technologies alert motorists to cyclists and increase visibility. Safer speeds reduce the severity of crashes, specifically for cyclists who are more vulnerable with their lack of physical protection. Safer roads infrastructure for cyclists includes signage, on-road and off-road facilities, and intersection designs that improve safety for cyclists. First responders with the tools and knowledge to properly treat cyclists at the scene of the crash will improve post-crash care. Post-crash care such as hospital data on treating cycling-related injuries that were unreported at the time of incident enhances Rhode Island's understanding of areas of risk where cyclists and motor vehicles interact.

[38] https://www.dot.ri.gov/Safety/pedestrian_bicycle_safety.php

[39] https://bikenewportri.org/

Cyclists

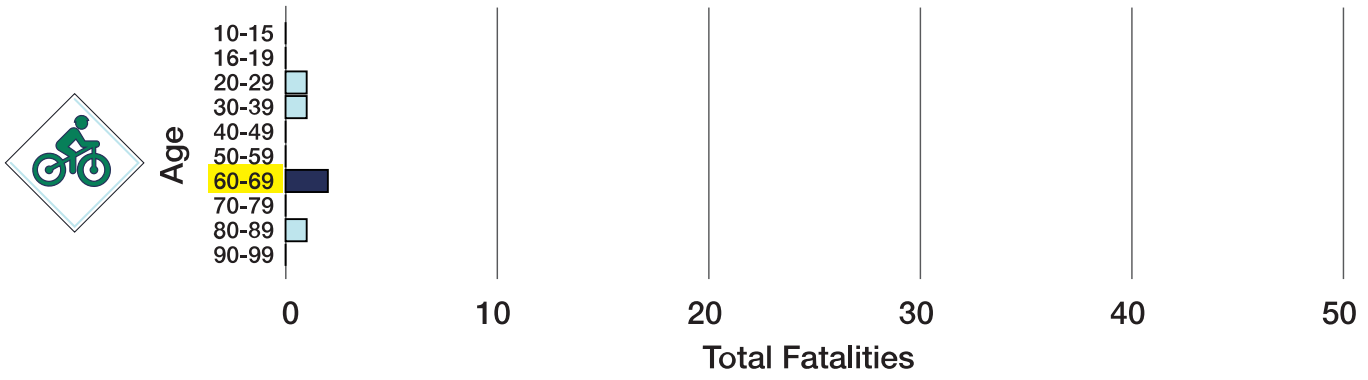


These emphasis areas are the top overlaps with Cyclist fatalities:

Impaired Driving 14%

Overall, 2% of all fatalities are Cyclist related (2017-2021).

Cyclist Fatalities by Age



30%

OF CYCLING FATALITIES ARE OVER 60 YEARS OLD

ALL CYCLING FATALITIES OCCURRED IN URBAN AREAS

STRATEGIES AND ACTIONS

Responsible Partners:

- Cyclist Task Force
- OHS
- RIDOT
- Rhode Island Police Chiefs Association
- Local Departments of Public Works
- RIDE
- WRWC

Strategy /Action	*Timeline*
Leadership	
Develop a Cyclist Task Force under Traffic Safety Coalition to champion the implementation of this SHSP.	
» Seek funding opportunities and support local agencies applying for project funding.	1-3 years
» Expand collaboration between existing education/outreach organizations and programs across the state.	Ongoing
Review bicyclist regulations at intersections regarding safety and operations.	
Implement a written test during driver license renewals that include bicyclist safety issues and laws.	
Education	
Support educational resource development specific to cycling safety experience to educate both bicyclists and motor vehicle drivers on traffic laws and safe behaviors.	
» Continue educational bicycle programs (such as infrastructure and the Rhode to Bicycling Safety program) and physical education in public schools.	Ongoing
» Create educational materials geared toward safe cycling practices and bicycle-vehicle interactions.	1-3 years
Use everyday touchpoints with drivers and travelers to provide re-education messages (e.g., intersection/roundabout operations, interactions between various modes/vehicles, traffic laws).	
» Consider pamphlets with paper license renewals or registrations, or pop-up "quizzes" with online renewals as examples.	2-3 years

Implement a written test during driver license renewals that include cycling safety issues and laws.

Reach drivers and cyclists through media campaigns specific to cycling safety.

- » Develop cycling safety messaging and media campaigns. Ongoing

EMS

Minimize response time and time from crash to medical treatment to improve injury outcomes.

- » Expand use of more reliable extrication tools such as portable battery-operated equipment. 0-1 years
- » Unify data systems to streamline the flow of and accuracy of data between dispatchers, responders, medical personnel, etc. 1-3 years
- » Continue to work with dispatchers to improve data accuracy and completeness in the data gathering process. Ongoing
- » Leverage existing TIMs training program to re-train partners on EMS response needs and crash scene access. 1-3 years
- » Provide training on treatments pertinent to cycling injuries. 1-3 years

Continue to check that data improvements are supportive of and compatible with automatic crash notifications systems.

Work toward a statewide Trauma Registry to build a comprehensive understanding of traffic incidents.

- » Identify necessary interagency agreements. 0-1 years
- » Identify a data platform agreeable to all partners. 1-3 years

Improve understanding of crash causes by reviewing injury data regarding driving behavior.

Enforcement

Improve data accuracy for cycling crashes.

» Provide crash form training with focus on cycling crash circumstances.	1-3 years

Continue training law enforcement officers on the new Vulnerable Road Users law to more accurately report crashes that include a vulnerable road user.

Engineering

Implement the Safe System approach principle of Safe Road Users, Safe Vehicles, Safe Speeds, Safe Roads, and Post-Crash Care through equitable roadway improvements.

» Implement countermeasures that reduce the kinetic energy transfer between all road users so that collisions do not result in a serious injury or fatality.	Ongoing
» Continue the deployment of proven safety countermeasures (e.g., bicycle lanes, road diets).	Ongoing

Implement the infrastructure improvements and countermeasures in the statewide Bicycle Mobility Plan.

Implement and strengthen the Complete Streets law, including installation of protected and separated bicycle lanes where feasible.

Revisit design standards for accommodation of all users, where feasible.

» Continue opportunities to incorporate Complete Streets principles in design projects.	Ongoing

Evaluate the safety effectiveness of completed cycling safety improvement projects and countermeasures.

» Continue conducting effectiveness studies of safety countermeasures, such as bike lanes and road diets as they pertain to cycling.	Ongoing

IMPLEMENTATION

Strong leadership and collaboration are the backbone to the accomplishments and successes achieved in the past and will continue to be the driving force in the future. Rhode Island's multidisciplinary Traffic Safety Coalition meets monthly to discuss coordinated efforts to make the state's roadways safer. On a quarterly basis, Rhode Island delivers an SHSP update presentation at additional scheduled meetings. Several task forces were established out of the 2017 SHSP to support implementation and have continued meeting over the past 5 years—this model will be expanded to implement the 2023 Plan. To aid in implementation, Rhode Island safety stakeholders will develop action plans for each Emphasis Area that will identify the responsible implementing agency/organization, timeframe, potential funding sources, and relative cost for each strategy and action.

Over the last 5 years, safety stakeholders developed a unified culture of safety that supports Rhode Island in its vision to bring fatalities and serious injuries TO ZERO. Over the next 5 years, stakeholders will work toward bringing this message to our communities to instill a culture of safety in the traveling public. The responsibility to improve safety and reduce fatalities and serious injuries is shared. This SHSP is a Call to Action.

A CALL TO ACTION

The Safe System approach demonstrates a shift in our safety culture for the 2023 Plan. Rhode Island made the conscious decision to consider the Safe System approach elements in each of the Emphasis Areas and illustrate how eliminating traffic-related fatalities and serious injuries depends on the work of many. Here, Safe System approach's principles are the foundation for Rhode Island's call to action.

Our vision is to leverage partnerships and promote equity to bring roadway deaths and serious injuries TO ZERO for all users through safety countermeasures, continuous education, and a positive safety culture.

THE

SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we get there.

Source: RIDOT

Death/Serious Injury are Unacceptable

The strategies and actions detailed in the 2023 Plan are explicit steps for Rhode Island in the next 5 years to improve highway safety and create a foundation for future efforts.

In addition to strategies and actions, successful implementation of the 2023 SHSP requires a shared traffic safety culture unique to Rhode Island and recognizable to all Rhode Islanders. The strategies and actions within this Plan provide a tangible assessment of risks and hazards and the capabilities of the organization to respond. Widely adopting a traffic safety culture goes a step further.

Culture can be described in terms of shared values or ideals to which we aspire. Our values guide our actions and form our system of beliefs. A strong traffic safety culture is intentionally designed to emphasize values, change beliefs, and ultimately influence behavior. Rhode Island's safety culture is based on data-driven outcomes, accumulated wisdom and best practices, and seizing opportunities. This SHSP will broaden the existing traffic safety culture and promote it to residents and visitors, striving for an approach that is inclusive and equitable. Rhode Island will continue to evolve its traffic safety culture to meet changing safety and community needs. Cultural transformation is not effective in isolation, rather integrated interventions and deterrents across partners and agencies will reduce unsafe driving behavior, increase the safety of our roadway network, and bring fatalities and serious injuries TO ZERO.

Safety is Proactive

Reaching ZERO traffic-related fatalities and serious injuries demands innovative approaches and future forward thinking. As addressed throughout the Plan, traffic safety concerns do not occur independently from each other—Rhode Island needs to be efficient in our approaches and in the strategies we apply to address the interconnectedness. This involves ongoing evaluation strategies and countermeasures to determine effectiveness, pivoting when something is no longer effective, and monitoring trends to anticipate emerging issues and developing strategies proactively. All stakeholders should be involved in developing data collection and evaluation tools that provide evidence about how best to achieve effective and sustainable traffic safety measures that save lives. Data, evaluation, and innovative thinking are a cyclical process that encourages proactive approaches to safety.

Leadership is a Best Practice in Rhode Island.
Passionate leaders have led to many meaningful accomplishments over the last 5 and 10 years.

Source: RIDOT

Redundancy is Crucial

Building a culture of safety will rely on support from Rhode Island's leadership. We can accomplish this through organizational collaboration.

Interagency Task Forces—Rhode Island's SHSP success is dependent on the ongoing support from diverse stakeholders and partners. Emphasis Area-specific Task Forces formed in previous years should continue to meet; safety partners will gather to establish new Task Forces for the Emphasis Areas that do not yet have a structural lead. These Task Forces are an opportunity to maintain the momentum from 2023 Plan development and capitalize on the stakeholder inputs.

Small State, Big Opportunities—The unique nature of Rhode Island's size and geographic location creates an opportunity for overlap and coordination. Cultural transformational strategies are not expected to work in isolation. They are developed as an integrated form of safety interventions and deterrents of unsafe driving behavior.

Many SHSP partners participate in more than one task force, which increases the visibility of safety issues beyond just the opportunities within their agencies. This also creates an environment for close working relationships and opportunities to identify strategies for sharing resources and knowledge when identifying, developing, and implementing safety efforts.

Successful implementation of any plan requires partnerships and consensus among stakeholders.

Working with partners across state lines brings new opportunities and innovative ideas to our state.

Responsibility is Shared

Rhode Islanders have a role to play in improving highway safety, from infrastructure to driver behavior. Rhode Island's 4E approach to safety recognizes the shared responsibility. Education, Engineering, Enforcement, and EMS all play critical roles in reducing fatalities and serious injuries on our roadways. The areas also provide critical support for one another. Enforcement can supplement education and outreach to high-risk user groups and provide insights to infrastructure improvements. The practice of bringing together multidisciplinary stakeholders for road safety assessments has been a successful approach to addressing key safety issues, while building support among stakeholders and the community to improve safety. This process is an important reminder for how safety is a shared responsibility.

Source: RIDOT

Humans are Vulnerable

Understanding the characteristics that make Rhode Island unique will enhance transportation professionals' efforts to design and operate a transportation system that is human-centric and accommodates human vulnerabilities.

A Rhode Island Lens—Unlike many other states, Rhode Island is primarily urbanized—which means there are many different road users constantly interacting. However, one size does not fit all and there are several important distinctive, yet connected, considerations when designing safe roadways. Roadway functional classification is defined by vehicular speed and method of travel. The land use—or the community beyond the footprint of the roadway—determines the destinations. Marrying the how (e.g., mode of transportation, roadway functional classification) with the where (e.g., land use, context), will paint a more holistic image of the larger transportation system, and provide decision-makers with rich context to design a system that meets the needs of the users.

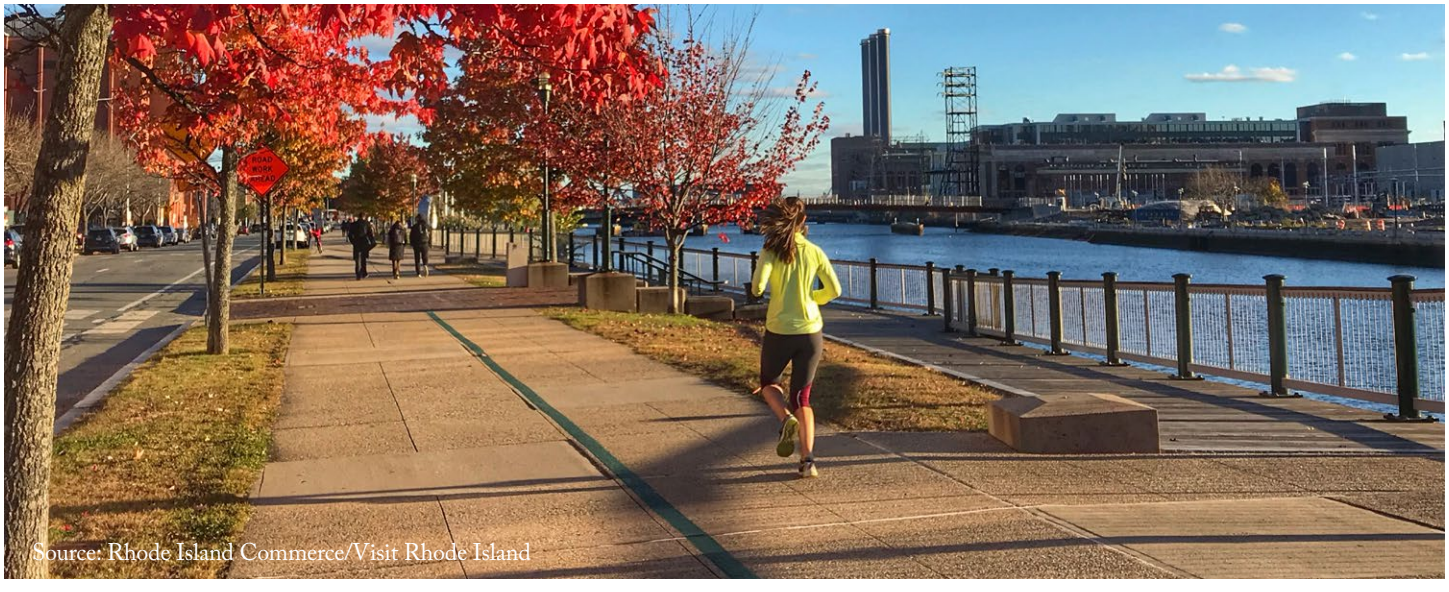
Regional Approach—Rhode Island residents and visitors interact daily due to our size and proximity to other states. We will continue monitoring the changing climate as neighboring states change policies that may impact highway safety. Safety partners can capitalize on the relationships forged in the Task Forces to have open discussions and anticipate implications—and proactive solutions—for Rhode Island. Some efforts may include enforcement campaigns, messaging and outreach campaigns, and widening the reach of data initiatives to include EMS data in hospitals outside of Rhode Island.

Humans Make Mistakes

As transportation professionals shift to proactive safety strategies and implement new countermeasures that accommodate human error, it is also our responsibility to effectively communicate and educate the broader public on safety-related laws, the role of infrastructure, and expected behavior to minimize human error.

Engagement at the Local Level—The SHSP is a statewide plan, but the work is implemented on the local level. Local agencies have first-hand knowledge of their communities' needs, challenges, and successes—this is where the safety culture is established and encouraged. Statewide safety partners should expand outreach efforts to include local partners in safety-related projects from development through evaluation.

Equity in Engagement—Rhode Island's commitment to zero roadway fatalities means considering the needs of everyone, which is accomplished through proactively engaging traditionally underserved and underrepresented communities. Applying an equity lens to outreach applies to information collection and information dissemination. Qualitative data collection, like personal stories and interviews, can supplement data analysis and highlight areas of concern where crashes have the potential to occur. Educational and informational outreach campaigns should also be sensitive in the messaging, such as using inclusive language, diverse and representative images, and publishing in multiple languages.



Source: Rhode Island Commerce/Visit Rhode Island

LOCAL PARTNERSHIPS

Safety partners at the state-level will continue to foster and build their local partnerships. In spring of 2022, FHWA began accepting applications for the Safe Streets for All (SS4A) grant program. "The primary goal of the SS4A grant is to improve roadway safety by supporting communities in developing comprehensive safety action plans based on a Safe System Approach,[40] and implementing projects and strategies that significantly reduce or eliminate transportation-related fatalities and serious injuries involving pedestrians; bicyclists; public transportation, personal conveyance, and micromobility users, commercial vehicle operators; and motorists."[41]

RIDOT is not eligible for this competitive grant program; however, RIDOT can support cities, towns, tribal government, and the MPO which are eligible. In addition to completing a comprehensive safety action plan, SS4A funds can be used to address a wide range of safety challenges spanning all Emphasis Areas adopted by this plan.

The success of the SHSP is dependent on implementation at the local level. SS4A will fund a wide array of activities addressing the priority safety concerns in Rhode Island. Eligible activities address safety from all angles, such as planning-level safety efforts (e.g., Comprehensive Safety Action Plans, feasibility studies); infrastructure-specific (e.g., proven safety countermeasures); and behavioral approaches (e.g., educational campaigns for new infrastructure). Emerging and innovative activities that address first responder services, unified and integrated data efforts, and advanced transportation technologies are also eligible. Local partners are encouraged consult the SS4A Grant Program for more eligible activities.

Source: VHB

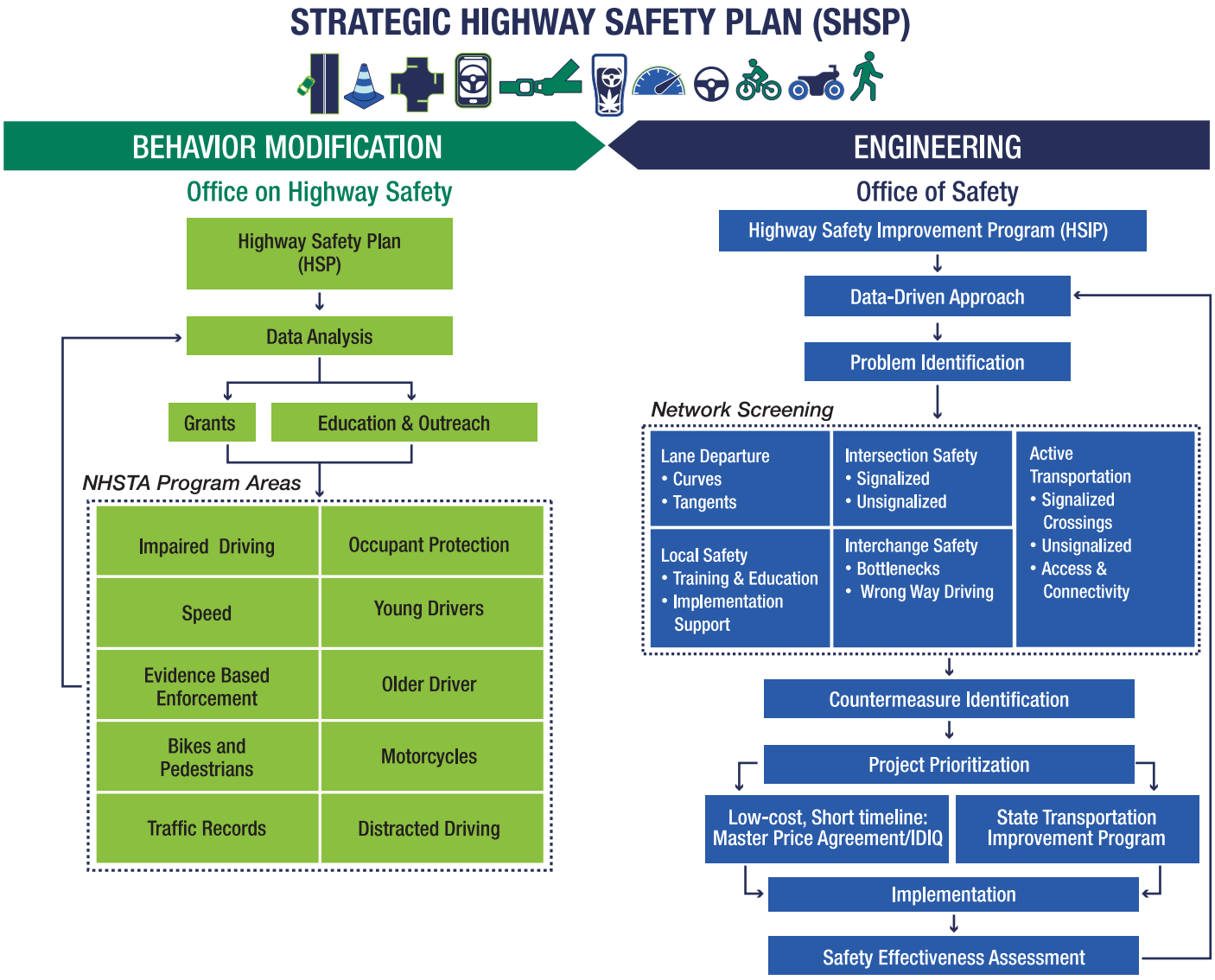
Source: Young Voices

[40] https://www.transportation.gov/NRSS/SafeSystem

[41] https://www.transportation.gov/grants/SS4A

COORDINATION WITH OTHER PLANS

The SHSP is part of the state's HSIP, which is a federal-aid program that uses funds to implement strategies and countermeasures that reduce fatalities and serious injuries on all public roads. Each state receives HSIP funding and develops a report for how the money is used on infrastructure-related projects that align with the SHSP's Emphasis Areas. The SHSP is also part of the statewide Transportation Improvement Program (STIP) and coordinates with NHTSA's HSP, which documents Rhode Island's safety program and progress toward performance targets. The 2023 Plan works in collaboration with the HSP which enforces roadway safety standards, investigates safety violations, and conducts research on driver behavior and traffic safety. The 2023 Plan also connects with broader safety plans, including the Rhode Island Long Range Transportation Plan, Metropolitan Transportation plans, regional comprehensive master plans, and transit plans.



SPECIAL RULES

Federal requirements for a SHSP include checking three areas of concern or Special Rules, Older Drivers and Older Pedestrians, High-Risk Rural Roads (HRRR), and Vulnerable Road User Safety. The purpose of these rules is to identify if vulnerable parts of the roadway network or population have an increasing crash trend. If there is an increasing trend, the state has an additional responsibility in the SHSP to address these areas.

Source: Rhode Island Commerce/Visit Rhode Island

RULE #1 VULNERABLE ROAD USER SAFETY

This rule is based on whether annual fatalities of vulnerable road users in the state represents not less than 15% of the total annual crash fatalities in the state in a single year period. If the state exceeds the 15% threshold, the state is required to obligate not less than 15% of the amounts apportioned to the state for HSIP to address vulnerable road users. Vulnerable road users include pedestrians and bicyclists.

RULE #2 HRRR SPECIAL RULE

This rule takes effect if "the fatality rate on rural roads in a state increases over the most recent 2-year period for which data are available." If applicable, a state must obligate an amount equal to 200% of its FY2009 high risk rural roads set-aside funds to HRRR. Transportation legislation, 23 U.S.C. 148(a)(1), defines HRRR as "any roadway functionally classified as rural major or minor collector or a rural local road with significant safety risks."

Rhode Island's method of evaluation for HRRRs aligns with the current legislation and defines 'significant safety risks' as having "a crash rate per mile above the average crash rate per mile of similar functional classifications." A review of the data confirms that the HRRR special rule does not currently apply to Rhode Island. This metric will continue to be monitored to assure rule compliance.

RULE #3 OLDER DRIVERS AND PEDESTRIANS SPECIAL RULE

This rule takes effect if "the rate of traffic fatalities and serious injuries for drivers and pedestrians 65 years of age and older in a state increases during the most recent 2-year period for which data is available".[42] Per capita rates are based on 5-year averages and are rounded to the nearest tenth to determine if the rule applies. If applicable, a state must include strategies to address the increases in the rates, considering recommendations in the FHWA publication *Handbook for Designing Roadways for the Aging Population* in the next update of the SHSP.[43]

A review of the data confirms that the older driver and pedestrian special rule does not currently apply to Rhode Island. This metric will continue to be monitored annually to assure compliance with the rule.

[42] https://safety.fhwa.dot.gov/hsip/rulemaking/docs/Section148_SpecialRule_Guidance.pdf

[43] https://safety.fhwa.dot.gov/older_users/handbook/aging_driver_handbook_2014_final%20.pdf

Source: Rhode Island Commerce/Visit Rhode Island

RHODE ISLAND
STRATEGIC HIGHWAY
SAFETY PLAN
2023-2027

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Source: Rhode Island Commerce/Visit Rhode Island