

Memorandum

DATE: April 3, 2025
TO: MPO Policy Committee
FROM: David Walker, Assistant Director
RE: Regional Safety Action Plan

The Bipartisan Infrastructure Law (BIL) passed in 2021 established the Safe Streets and Roads for All (SS4A) discretionary grant program with \$5 billion in funding over five years. This program provides up to \$1 billion per year for grants to prevent roadway deaths and serious injuries. There are two types of SS4A grants: Planning Grants and Implementation Grants. To be eligible for implementation grants a community or region must have an adopted Safety Action Plan (SAP), and only activities included in the action plan are eligible for implementation grants.

In partnership with NRPC, SNHPC, and SRPC, RPC applied for a Planning Grant in 2022 to develop Safety Action Plans which, once completed, would make each MPO and the communities within them eligible for Implementation Grants in future rounds. RPC was awarded the grant and in late 2023 signed VHB as a consulting team to work with the MPOs and develop the SAPs. A draft Regional SAP (attached) was completed in late March. The SAP translates the Safe System Approach to roadway safety into a strategic plan for the region. It includes eight components and staff has assessed that each is incorporated into the draft in an appropriate manner:

- **Leadership Commitment and Goal Setting:** Official public commitment by governing body to an eventual goal of zero roadway fatalities and serious injuries, with target date. *RPC has committed to reducing fatalities and serious injuries 50% by 2035 and to zero by 2050.*
- **Planning Structure:** Committee/task force or other implementation group charged with oversight of the Action Plan development, implementation, and monitoring. *RPC will utilize the TAC and MPO Policy Committee as oversight entities as well as continuing to coordinate with NHDOT, NHDOS, and the other MPOs.*
- **Safety Analysis:** Detailed analysis of existing conditions, historical trends, locations, severity, contributing factors, and crash types. Analysis of systemic and specific safety needs. *The SAP includes extensive safety analysis to better understand system needs.*
- **Engagement & Collaboration:** Robust engagement with the public and relevant stakeholders – including private sector and community groups. *The SAP incorporated extensive public engagement via a survey, meetings with MPO TACs, and several focus groups.*
- **Equity Considerations:** Utilize an inclusive and representative process that assesses the equity impacts of proposed projects and strategies. *The work was conducted in an inclusive manner and identifies the potential impacts of projects and strategies.*

- **Policy and Process Changes:** Assess current policies, plans, guidelines, and standards to identify opportunities to improve how processes prioritize transportation safety. *The SAP includes strategies that identify policy and process changes that would improve transportation safety in New Hampshire.*
- **Strategy and Project Selections:** Identify a comprehensive set of projects and strategies supported best available evidence and practices. Provide a prioritized list of countermeasures and strategies including timeframes for implementation. *The SAP includes a lengthy list of strategies to improve transportation safety and refers to the MPO Transportation Improvement Program (TIP) and Long Range Transportation Plan (LRTP) and the State Ten Year Plan for specific projects.*
- **Progress and Transparency:** Methods to measure progress over time and transparent annual reporting on progress towards reducing fatalities and serious injuries. *The SAP includes provisions for the MPO to report on trends and progress as part of the MPO System Performance Report and will be discussed as part of the annual setting of HSIP targets.*

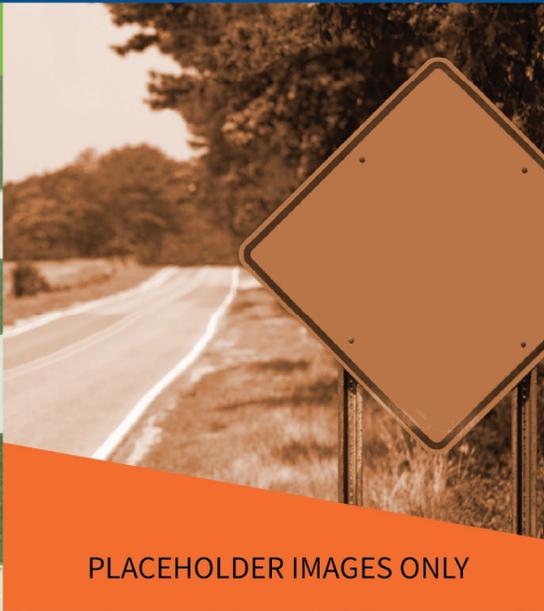
Staff has reviewed the draft SAP extensively and has compiled a list of comments and edits that can be summarized into four types:

- **Technical edits:** These are largely requesting wording changes to the text, ensuring consistency in font and heading/body text, and addressing reference errors.
- **Data Analysis changes:** Some of the crash tree analyses are incomplete and need to be revised.
- **Additional Content:** Add more detailed acknowledgement of the SS4A steering committee, the TAC, and focus group participants. Add crash testimonies from those gathered as part of the survey. Expand the strategies tables with strategies that incorporate public transit and land use changes to reduce the need for motor vehicle travel and therefore improve safety.
- **Equity and Justice40 Analysis:** This component, which looks at the impacts of crashes on disadvantaged populations, is a required component of the Safety Action Plan according to RPC's contract agreement with the Federal Highway Administration. With the new administration, however, many of the policies and rules requiring the equity analysis have been removed and RPC has requested clarification from FHWA regarding how this should be handled when the contract expressly commits us to including the analysis.

The TAC discussed the Safety Action Plan at the March 27, 2025 meeting and recommended approval by the MPO, incorporating the changes recommended by staff and discussed at the meeting. The document will be finalized before the end of April.

Recommend that the MPO adopt the Regional Safety Action Plan and share with the RPC communities that they are now eligible to apply for implementation grants.

ROCKINGHAM PLANNING COMMISSION (RPC)
SAFETY ACTION PLAN
2025 



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Acknowledgements

This Plan was created by the Rockingham Planning Commission (RPC) with input from the Technical Advisory Committee (TAC) in close coordination with New Hampshire Department of Transportation (NHDOT), NH Office of Highway Safety, Federal Highway Administration (FHWA), and VHB. The main funding source for the Plan comes from the United States Department of Transportation (USDOT) “Safe Streets and Roads for All” (SS4A)¹ planning grant under the FY 2022 grant program.

The RPC extends its sincere appreciation to the survey and focus group participants who generously shared their time, thoughts, and feedback. Your contributions have been invaluable to the development of this plan.

¹ USDOT SS4A Program: <https://www.transportation.gov/grants/SS4A>

Executive Summary

The Safe Streets and Roads for All (SS4A) grant program, established as part of the Bipartisan Infrastructure Law (BIL) in 2022, allocates \$5 billion over five years (2022-2026) to support regional, local, and tribal initiatives aimed at preventing serious injuries and fatalities from roadway crashes. This funding can be used to develop Safety Action Plans or implement project proposals outlined in such plans.

The Rockingham Planning Commission (RPC) has been awarded a planning grant from the first round of SS4A to develop regional Safety Action Plans for the four New Hampshire MPOs (NRPC, RPC, SNHPC, and SRPC). These comprehensive plans aim to reduce or eliminate serious injuries and fatalities through data-driven and holistic strategies developed in a transparent and inclusive process. Safety Action Plans include required components and are a prerequisite for applying for SS4A Implementation Grant funding.

A Safety Action Plan is a detailed, data-driven roadmap that outlines specific measures and strategies to enhance transportation safety, reduce crash frequency and severity, and ultimately achieve zero fatalities and serious injuries. It includes a comprehensive analysis of crash data, identification of high-risk locations and behaviors, and targeted interventions. Developed through collaboration with stakeholders such as transportation agencies, law enforcement, public health organizations, and community members, the plan outlines projects, policies, and ongoing communication efforts to foster a shared understanding and responsibility for safety.

The RPC Safety Action Plan focuses on several key areas. Firstly, it involves analyzing safety data and input, where data on reported crashes were scrutinized to identify "hot spots" for historic traffic crashes and determine risk factors leading to serious injury and fatal crashes. Local and regional plans and policies were reviewed to understand the decision-making tools influencing roadway safety projects, and community input was gathered to incorporate the lived experiences of residents, workers, and travelers in the region and surrounding areas. Secondly, the plan determines safety problems and emphasis areas by summarizing the results of data analysis and community input to identify specific safety issues and establish prioritized safety countermeasure recommendations based on road classification. The analysis of crash types and emphasis areas revealed patterns and behaviors that can be addressed through a comprehensive approach, incorporating engineering, enforcement, education, and emergency response. Thirdly, strategies and projects are identified by linking the emphasis areas, according to the development context, with the elements and principles of the Safe Systems approach. Proven safety countermeasures for engineering and infrastructure formed the primary set of strategies, following procedures like the Road Safety Assessment method. Additional strategies, including education, enforcement, and data collection, were also considered. Specific actions were identified for each strategy to create an implementation framework, and action items were prioritized for execution in Priority Focus Areas and along the High Injury Network.

The implementation of the plan involves seeking various funding sources for the outlined actions. The RPC region and its partners will strategically align these actions for potential funding through the NHDOT Highway Safety Improvement Program (HSIP), federal discretionary grants such as the

Safe Streets for All program, and other state and federal funding sources. Implementing these projects will require ongoing coordination with partners, including NHDOT, Rockingham County, and nearby communities. The plan also incorporates performance metrics to monitor ongoing and continuous implementation efforts, centered on reducing or eliminating serious injuries and fatalities from roadway crashes. These metrics rely on traditional data sources such as reported crashes, supplemented by gathering additional data such as near misses and insights from the experiences of the region residents. Updating this plan every five years is essential to align with the latest NH New Hampshire Strategic Highway Safety Plan (SHSP), new federal and state funding opportunities, and evolving traffic safety issues and priorities.

The ultimate goal of this plan is to achieve zero deaths and serious injuries on our roadways by 2050. By employing a comprehensive and systematic approach, the RPC aims to utilize data-driven methods to identify and implement effective countermeasures aimed at reducing crashes in the RPC region.

Introduction

New Hampshire's Regional Planning Commissions were established by state law in 1969 as advisory bodies formed voluntarily by member communities. The Rockingham Planning Commission (RPC) was created in 1981 from the merger of two smaller commissions. Regional Planning Commissions provide technical planning assistance to communities, promote regional cooperation, and conduct planning in areas such as transportation, land use, water resources, housing, economic development, and emergency management. The RPC is governed by a Board of Commissioners, consisting of unpaid representatives appointed by the 27 member communities' Planning Boards and Boards of Selectmen or City Councils.

The Commission's region consists of 27 of the 37 Rockingham County communities in Southeast New Hampshire. Communities in the RPC region include Atkinson, Brentwood, Danville, East Kingston, Epping, Exeter, Fremont, Greenland, Hampstead, Hampton, Hampton Falls, Kensington, Kingston, New Castle, Newfields, Newington, Newton, North Hampton, Plaistow, Portsmouth, Raymond, Rye, Salem, Sandown, Seabrook, South Hampton, and Stratham. The region has a total population of approximately 196,100. All roadways excluding interstates in this region total approximately 1,985 miles.

The RPC is dedicated to enhancing transportation safety with the goal of eliminating deaths and serious injuries from crashes by 2050. This plan outlines the transportation risks, safety data, and strategies for improving safety across the region. Implementing this plan will enhance transportation safety for residents and visitors alike. Developed with input from various safety partners and stakeholders, this Safety Action Plan represents a continuous effort to make safety improvements. The ultimate goal of this plan is to achieve zero deaths and serious injuries on our roadways.

Stated in the 2045 Long Range Transportation Plan, that the overall goal of the safety performance area is to make the nation's transportation systems safer for all users, including transit users, bicyclists, and pedestrians through significant reduction in fatalities and serious injuries on the roadways, and through reductions in fatalities, injuries, and safety events for transit systems.

What is a Safety Action Plan

The Safe Streets and Roads for All (SS4A) grant program, established as part of the Bipartisan Infrastructure Law (BIL) in 2022, allocates \$5 billion over five years (2022-2026) to support regional, local, and tribal

initiatives aimed at preventing serious injuries and fatalities from roadway crashes. This funding can be used to develop Safety Action Plans or implement project proposals outlined in such plans.

A Safety Action Plan is a strategic roadmap designed to enhance safety within a community or organization by identifying risks and outlining specific measures to mitigate them. It begins with a thorough assessment and analysis of potential hazards, gathering data on crashes and near-misses, and incorporating input from stakeholders to understand safety concerns comprehensively.

The plan sets clear safety objectives and establishes performance indicators to measure progress. It details actionable steps, such as infrastructure improvements, policy changes, training programs, and public awareness campaigns, all within defined timelines. Roles and responsibilities are clearly assigned to ensure coordination and accountability. The plan's execution is continuously monitored to stay on track, with regular performance evaluations to measure effectiveness. Periodic reviews allow for adjustments based on feedback and evolving circumstances.

Need for a Safety Action Plan

Transportation in southeastern New Hampshire is being strategically developed to support the region's high quality of life, strong economy, and distinct community character. Significant investments are being made in infrastructure systems to support both communities and businesses. This includes enhancing transportation networks to ensure efficient and reliable connectivity across the region. There is a focus on increasing public transportation options to help residents adapt to the high cost of energy and to provide alternatives to private vehicle use. This effort aims to reduce traffic congestion, lower emissions, and improve overall accessibility.

However, people of all ages and abilities from the region have been killed in roadway crashes. Every life matters, and The Rockingham Regional Planning Commission is dedicated to zero fatalities and serious injuries on the roadway. A traffic crash analysis was conducted from 2018 to 2022. Over these five years, the region experienced a total of 65 fatal crashes. The number of serious injury, minor injury, possible injury, no apparent injury, and unknown injury crashes cumulatively amounted to 22,105. The data highlights the critical need for interventions in areas such as distracted and impaired driving, intersection safety, and protection for vulnerable road users like pedestrians and motorcyclists. The analysis underscores the importance of addressing specific groups, including older and teenage drivers, to enhance overall road safety in the region.

Safe System Approach

The Safe System Approach is a holistic and comprehensive strategy for road safety that aims to reduce the risk of severe injuries and fatalities from road traffic crashes. It is based on the understanding that while human error is inevitable, road traffic fatalities and serious injuries are not. It works by building and reinforcing multiple layers of protection to both prevent crashes from happening in the first place and minimize the harm caused to those involved when crashes do occur.

Six Principles form the basis of the Approach:

- Deaths and serious injuries are unacceptable
- Humans make mistakes

- Humans are vulnerable
- Safety is proactive
- Redundancy is crucial
- Responsibility is shared

The Five Elements that form the Safe System address every aspect of crash risk:

- Safe Speeds
- Safe Roads
- Safe People
- Post-Crash Care
- Safe Vehicles



Figure 1. Safe System Approach Wheel (FHWA)

Equity

Incorporating an equity component in transportation safety is vital to ensure that all individuals, regardless of their socio-economic status, race, gender, age, disability, or location, have safe and reliable access to transportation. This approach addresses disparities that marginalized communities often face, focusing on vulnerable populations such as pedestrians, cyclists, seniors, children, and people with disabilities. By prioritizing safety improvements in high-risk areas, often found in lower-income neighborhoods, the plan ensures fair resource allocation and balanced investment across all communities.

Inclusive planning and community engagement are essential, involving diverse communities in the decision-making process to ensure their needs are met and building trust between transportation authorities and residents. This not only enhances health outcomes by reducing crashes and promoting active transportation options but also improves the overall quality of life by providing reliable access to jobs, education, healthcare, and other essential services.

Economic equity is also a key consideration, as safe and affordable transportation reduces the financial burden on low-income families and opens up greater economic opportunities for underserved communities. Ultimately, addressing historical and systemic injustices through equitable transportation safety measures promotes social justice, ensuring that everyone has the right to safe and reliable transportation. This comprehensive approach fosters fairness, inclusivity, and the well-being of the entire community.

USDOT Justice40

The Biden-Harris Administration's Justice40 Initiative aims to confront and rectify decades of underinvestment in disadvantaged communities by channeling resources to those most affected by climate change, pollution, and environmental hazards. The U.S. Department of Transportation (USDOT) sees Justice40 as a pivotal opportunity to address deficiencies in transportation infrastructure and public services. The initiative targets that at least 40% of the benefits from various grants, programs, and initiatives reach disadvantaged communities. Through Justice40, USDOT aims to expand affordable transportation options, connect Americans to well-paying jobs, combat climate change, and enhance access to essential resources and quality of life across all states and territories.

Transportation Insecurity is a key component of transportation disadvantage. It occurs when people are unable to get to where they need to go to meet the needs of their daily life regularly, reliably, and safely. The Justice40 Initiative will provide tools to help select projects that meet the transportation needs of this region, which in turn will help strengthen communities and create more equitable opportunities to improve daily life.

Equitable Transportation Community (ETC) Explorer Methodology

The process of evaluating Transportation Insecurity, Health Vulnerability, Environmental Burden, Social Vulnerability, and Climate and Disaster Risk Burden involves summing ranked normalized indicators for each component to generate a composite score. This composite score for each component is then percentile-ranked against all other census tracts, both nationally and statewide, through USDOT's National Results and State Results dashboards, respectively.

Census tracts are rated from 0% to 100%, with 0% indicating the least disadvantaged and 100% the most. A census tract is deemed disadvantaged if its overall index score places it at or above the 65th percentile, a cutoff chosen for consistency with the Climate and Economic Justice Screening Tool (CEJST). This percentile threshold has been validated through sensitivity analyses for its appropriateness in the Equitable Transportation Community (ETC) Explorer.

To generate an Overall Score, the ranked Component Scores are summed, with Transportation Insecurity given double weight based on feedback from the Request for Information (RFI) process and further sensitivity analyses. This Overall Score is then percentile-ranked again to produce the Final Index Score, allowing a comparative assessment of each census tract's overall disadvantage both nationally and statewide.

This methodology provides comprehensive insights into the interplay of various factors contributing to transportation disadvantage. It offers flexibility in qualifying tracts as disadvantaged and assesses cumulative impacts—combined environmental, social, or economic effects that can be more significant collectively than individually. By focusing on cumulative impacts, the DOT can pinpoint communities facing the highest combined burdens, enabling more targeted and beneficial funding for projects in those areas.

RPC Disadvantaged Communities

A disadvantaged community is a population that experiences higher levels of economic, social, and environmental hardships compared to other communities. These communities often face multiple, overlapping barriers that limit their opportunities and quality of life.

The RPC region has a total population of 196,100 and the total population living in disadvantaged Census Tracts is 2,700 which is about 2%. Transportation Access is ranked in the 75th percentile nationally. Communities with higher scores may experience longer commute times and difficulty traveling where they want to go via cars, walking and transit. Long commute times and limited access to personal vehicles or transit can create significant barriers to employment and resources. Ages 65 and older rank 68th percentile nationally for social vulnerability which is relatively compared to other indicators. This is an important consideration when assessing socioeconomic vulnerability, as older populations frequently face access barriers to healthcare and other essential services.

Vision, Mission, & Goal

Vision

By employing a comprehensive and systematic approach, we will utilize data-driven methods to identify and implement effective countermeasures aimed at reducing crashes in the RPC region.

Mission

Encourage and maintain cooperation among private and public stakeholders in implementing the 4 E's strategies—education, enforcement, engineering, and emergency response—to cultivate a safety culture where even one death on RPC region roadways is unacceptable.

Goal

Reduce the number of fatalities and serious injuries by 50% by 2035, working toward 0 by 2050.

Safety Action Plan Approach

The RPC implemented the following FHWA Local Road Safety Plan (LRSP) process to develop the Safety Action Plan. This approach is a FHWA Proven Safety Countermeasure. Establish Partners and Process

During this phase of the planning process, the RPC identified additional stakeholders, such as the RPC TAC committee and focus group members, to inform the plan. The leadership team simultaneously pinpointed further data and research topics and developed a vision statement to articulate the local safety culture and desired outcomes for the plan.



Figure 2. Infographic showing the Local Road Safety Plan (LRSP) process (FHWA)

Analyze Safety Data and Input

Data on reported crashes were analyzed to identify "hot spots" for historic traffic crashes and to determine risk factors leading to serious injury and fatal crashes. Local and regional plans and policies were reviewed to understand the decision-making tools influencing roadway safety projects. Community input was gathered to incorporate the lived experiences of residents, workers, and travelers in the region and surrounding areas.

Determine Safety Problems and Emphasis Areas

The results of data analysis and community input were summarized to identify specific safety issues and to establish prioritized safety countermeasure recommendations based on road classification. The analysis of crash types and emphasis areas revealed patterns and behaviors that can be addressed through a comprehensive approach, incorporating engineering, enforcement, education, and emergency response.

Identify Strategies and Projects

Strategies were formulated by linking the emphasis areas, according to the development context, with the elements and principles of the Safe Systems approach. Proven safety countermeasures for engineering and infrastructure formed the primary set of strategies, following procedures like the Road Safety Assessment method. Additional strategies, including education, enforcement, and data collection, were also considered. Specific actions were identified for each strategy to create an implementation framework. Action items were prioritized for execution in Priority Focus Areas and along the High Injury Network. This plan will be used to refine strategies and develop specific projects, timelines, and cost estimates.

Implement Plan

The RPC region and its partners will seek various funding sources for implementation. The actions outlined in this plan are strategically aligned for potential funding through the NHDOT Highway Safety Improvement Program (HSIP), federal discretionary grants such as the Safe Streets for All program, and other state and federal funding sources. Implementing these projects will require ongoing coordination with partners, including NHDOT, Rockingham County, and nearby communities.

Evaluate and Update Plan

This plan incorporates performance metrics to monitor ongoing and continuous implementation efforts. These metrics are centered on reducing or eliminating serious injuries and fatalities from roadway crashes. They rely on traditional data sources such as reported crashes, supplemented by gathering additional data such as near misses and insights from the experiences of the region residents. Updating this plan every five years is essential to align with the latest NH New Hampshire Strategic Highway Safety Plan (SHSP)², new federal and state funding opportunities, and evolving traffic safety issues and priorities.

Outreach Efforts

The Rockingham Planning Commission's Roadway Safety Action Plan utilized a comprehensive strategy to gather public input. This approach involved the creation of a dedicated project webpage, conducting an online survey and interactive input map, and organizing a sequence of meetings with the project Steering Committee, the Technical Advisory Committee, key stakeholders, as well as two public meetings—one located in West Rockingham and another within walking distance from the downtown area.

The collective feedback from these meetings were essential in guiding the project team's development of a series of programs and recommendations aimed at improving local roadway safety. The contributions

² 2022-2026 New Hampshire Strategic Highway Safety Plan: <https://www.dot.nh.gov/sites/g/files/ehbemt811/files/inline-documents/strategic-highway-safety-plan-2022-2026.pdf>

from the general public—expressed through public meetings and the online input map—were critical in capturing a detailed understanding of the community needs. This engagement was especially valuable from individuals with disabilities, parents of young children, and those lacking access to private motor vehicles, as these groups are often underrepresented in public involvement processes yet offer unique insights into roadway safety.

Focus Group Meetings

Focus groups play an essential role in enhancing outreach efforts by offering several key advantages. For this initiative, three focus-group meetings were conducted to gather input from critical stakeholders. These meetings were intentionally kept small to facilitate detailed discussions and idea-sharing. Participants included members of the bicycle and motorcycle communities, as well as a group focused exclusively on Portsmouth.

The primary objectives of the meetings were to review the Safety Action Plan approach and examine the findings from the crash data analysis. Attendees discussed their top safety concerns and perspectives. The feedback obtained from these meetings was integrated with the results from the Public Survey.

Public Survey

A critical engagement tool used for the Keene Roadway Safety Action Plan included an online survey. The survey featured 16 questions that asked participants to help the project team better understand residents' and visitors' experiences when walking, driving, bicycling, or using a mobility device within the four Metropolitan Planning Organizations (MPOs) in New Hampshire. The survey was made available to community members on June 7, 2024, and was open until July 16, 2024.

Respondents were asked to provide information on their demographics, their typical modes of transportation, and how safe they feel while using different modes of transportation. The survey also included questions about their top road safety concerns related to driver behavior and road conditions, as well as space for respondents to suggest potential safety improvements and share specific safety concerns. A full list of the questions and summary of the answers is available in Appendix A.

In addition to the questions, respondents had the option to add markers to an interactive map to highlight locations within the MPOs where they feel unsafe using any mode of transportation and ideas where they would like to see safety improvements. Suggestions for potential improvements included enhancing public transportation, road maintenance and condition, pedestrian-friendly infrastructure, expanding bike lanes, addressing traffic congestion, better signage and pavement markings, or other infrastructure ideas provided by respondents. A total of 1007 individuals completed the online survey, with just over 1,700 markers expressing safety concerns and/or ideas for improvements, as shown in Figures 3-6.

Of the 1,729 individual markers placed:

- 809 (47%) related to motor vehicle safety concerns
- 425 (25%) for pedestrian safety
- 334 (19%) for bicycle safety
- 161 (9%) were in the other safety improvement category

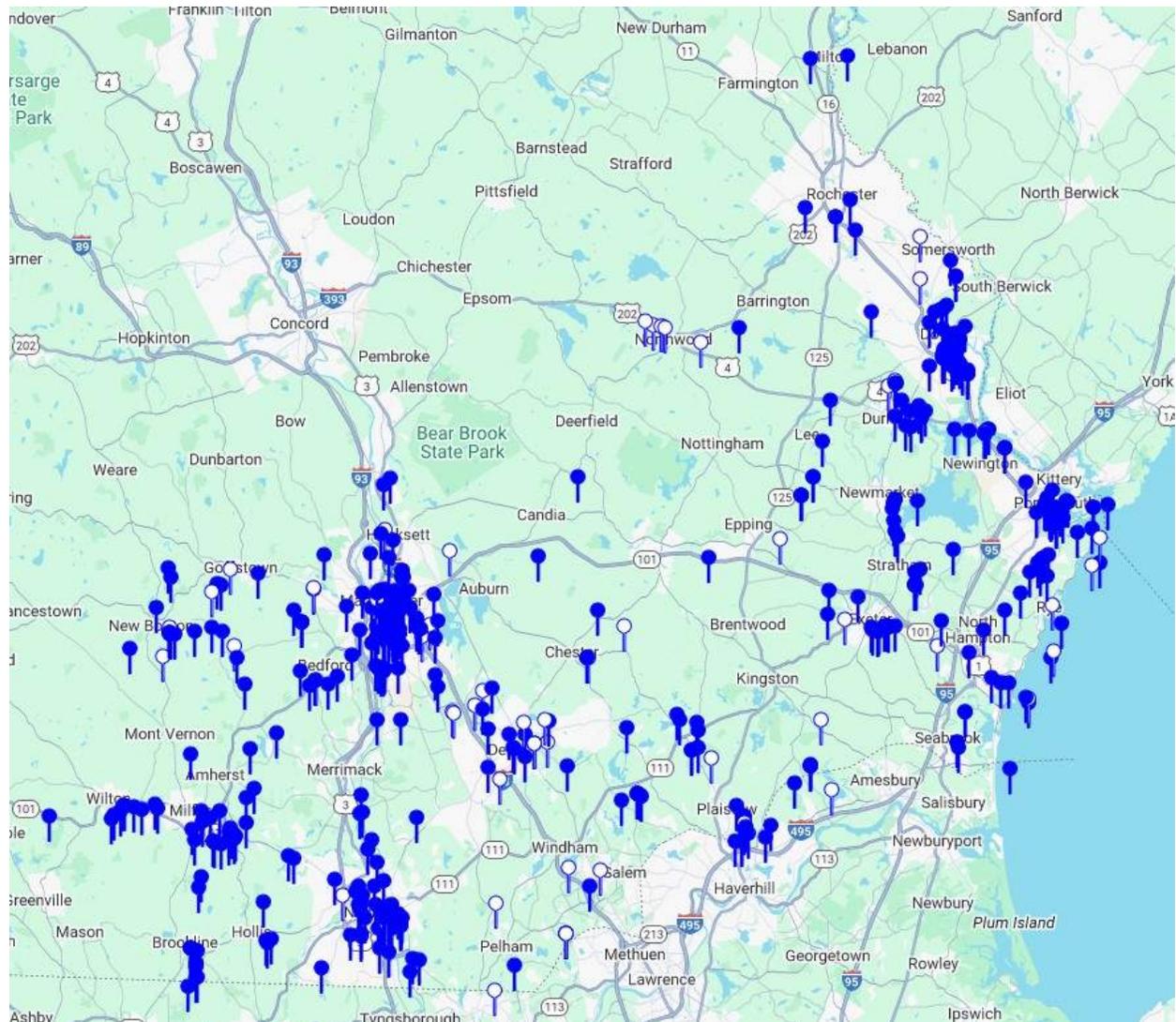


Figure 3: Map of Motor Vehicle Safety Improvement Requests from Survey

Some key takeaways from the motor vehicle input include:

- **Dangerous Intersections:** Many intersections are considered dangerous due to poor visibility, high speeds, and confusing layouts.
- **Speeding Issues:** Speeding is a common concern across various roads. Respondents suggest reducing speed limits and implementing traffic calming measures such as speed bumps and better signage.
- **Traffic Signal Improvements:** There are calls for better traffic signal synchronization and the addition of new traffic signals at busy intersections to improve traffic flow and safety.
- **Roundabouts:** Several respondents suggest the implementation or improvement of roundabouts to enhance safety and reduce congestion.

- **Signage Improvements:** Better signage is needed to guide drivers, especially at confusing intersections and traffic circles. Improved signage can help reduce accidents and improve traffic flow.
- **Visibility Issues:** Poor visibility due to overgrown vegetation, parked cars, and inadequate lighting is a common concern. Respondents suggest trimming vegetation, improving lighting, and removing parking spaces near intersections to enhance sightlines.
- **Road Maintenance:** Many roads are in poor condition and need maintenance, including repaving and fixing drainage issues.
- **Enforcement of Traffic Laws:** There is a need for better enforcement of traffic laws, including speeding, yielding to pedestrians, and obeying traffic signals. Increased police presence and the use of traffic cameras are suggested to deter violations.

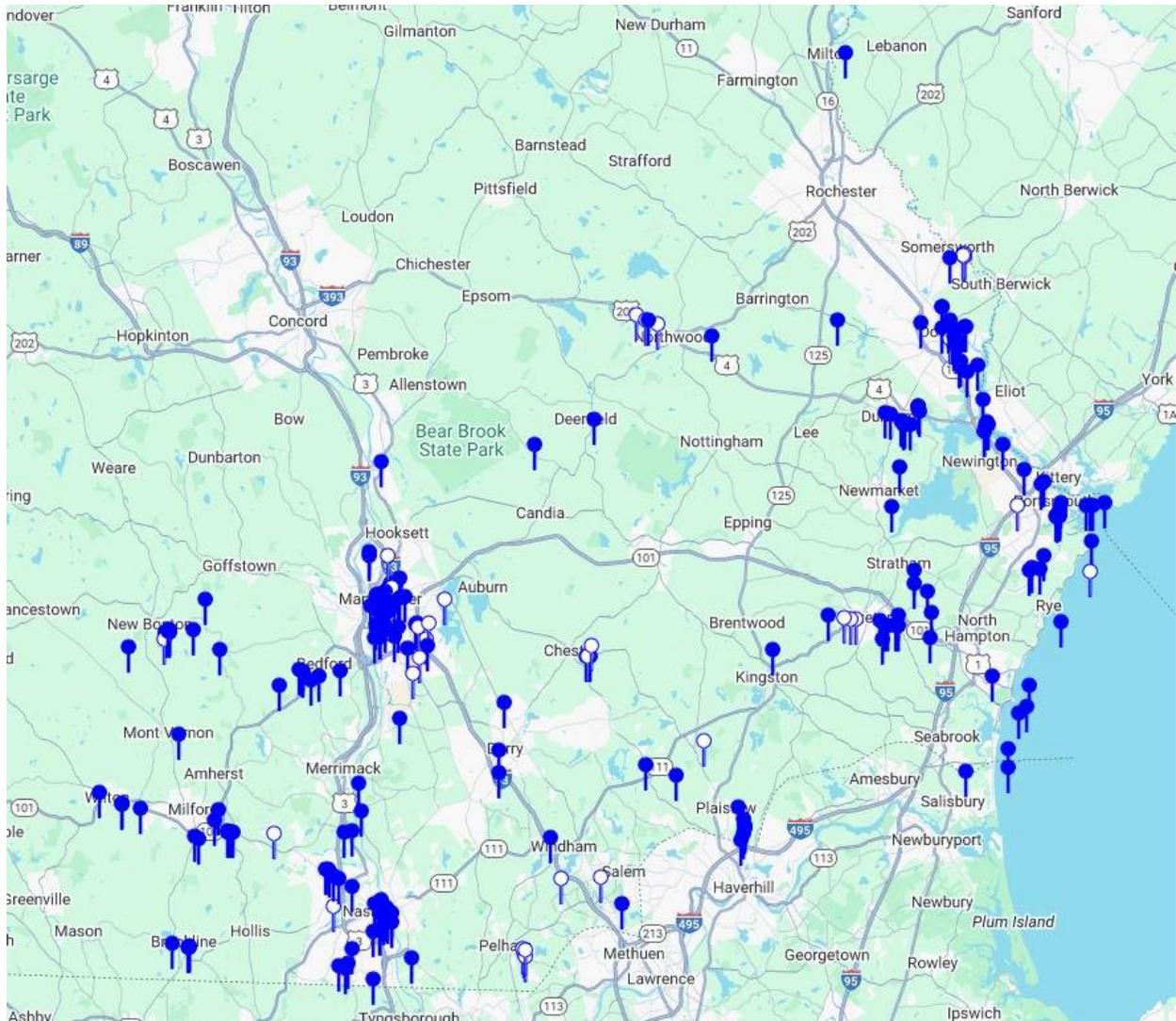


Figure 4: Map of Pedestrian Safety Improvement Requests from Survey

Some key takeaways from the pedestrian input include:

- **Need for More Crosswalks:** There is a significant demand for additional crosswalks in various areas to enhance pedestrian safety.
- **Improved Sidewalks, Winter Maintenance, and Accessibility Enhancements:** Respondents emphasized the need for better-maintained sidewalks, including addressing gaps, repairing existing pathways, and ensuring ADA compliance. Furthermore, maintaining clear sidewalks during winter is crucial for pedestrian safety, as many become impassable due to snow and ice. Additionally, enhancing accessibility for individuals with disabilities which includes installing curb ramps and ensuring sidewalks are navigable for wheelchairs.
- **Better Lighting:** Improved lighting at intersections and along sidewalks is a common request to ensure pedestrian visibility and safety, especially at night.

- **Traffic Calming Measures:** There are calls for implementing traffic calming measures such as speed bumps, narrower roads, and better signage to slow down vehicles in pedestrian-heavy areas.
- **Pedestrian Signals and Signage:** Enhanced pedestrian signals, including countdown timers and flashing signs, are needed to make crossing streets safer for pedestrians.
- **Addressing Dangerous Intersections:** Specific intersections have been identified as particularly dangerous for pedestrians, requiring immediate attention and redesign.
- **Enforcement of Traffic Laws:** Better enforcement of existing traffic laws, such as no-turn-on-red rules and yielding to pedestrians at crosswalks, is necessary to improve pedestrian safety.

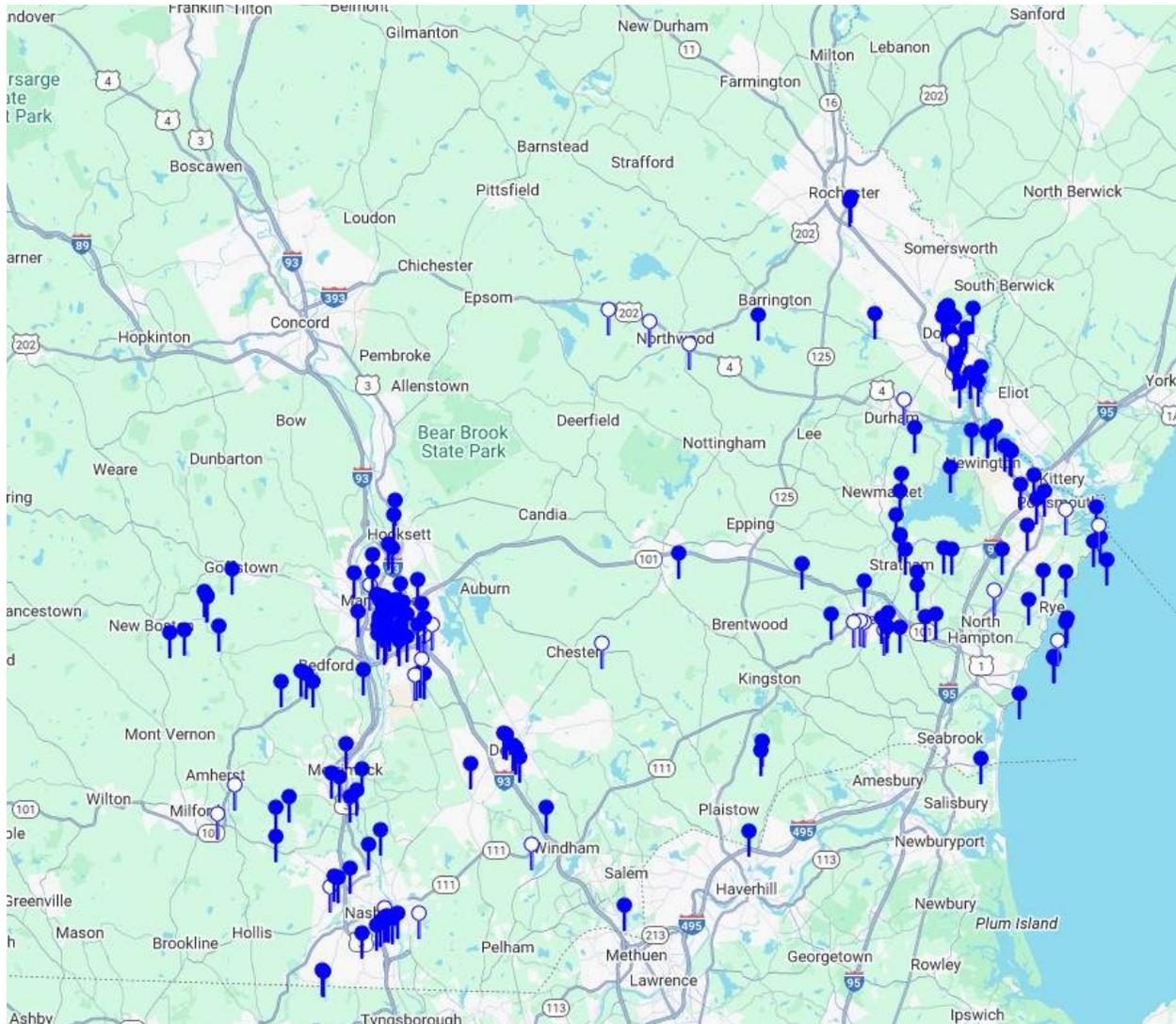


Figure 5: Map of Bicycle Safety Improvement Requests from Survey

Some key takeaways from the bicycle input include:

- **Need for Protected Bike Lanes:** Many respondents emphasized the need for physically separated bike lanes to ensure cyclist safety, as painted lines alone are not sufficient.
- **Improvement of Existing Infrastructure and Integration with Public Transport:** There were multiple calls for the enhancement and extension of existing bike lanes and trails, ensuring continuous routes in cities like Manchester and Nashua. Additionally, respondents emphasized the need for better integration of bike lanes with public transport routes to facilitate seamless multi-modal transportation.
- **Traffic Calming Measures:** Several comments suggested implementing traffic calming measures, such as reducing speed limits and adding rumble strips, to make roads safer for cyclists.

- **Education and Enforcement:** Respondents highlighted the need for better education and enforcement of traffic laws for both motorists and cyclists to improve safety and compliance.
- **Visibility and Signage:** Improved signage to alert drivers to the presence of cyclists and to indicate shared roadways was a common suggestion.
- **Addressing Specific Dangerous Areas:** Many respondents pointed out specific areas that are particularly dangerous for cyclists and need immediate attention, such as busy intersections, roundabouts, and roads with high-speed traffic.
- **Community Engagement and Support:** Encouraging community support and engagement in promoting cycling as a safe and viable mode of transportation was seen as important.

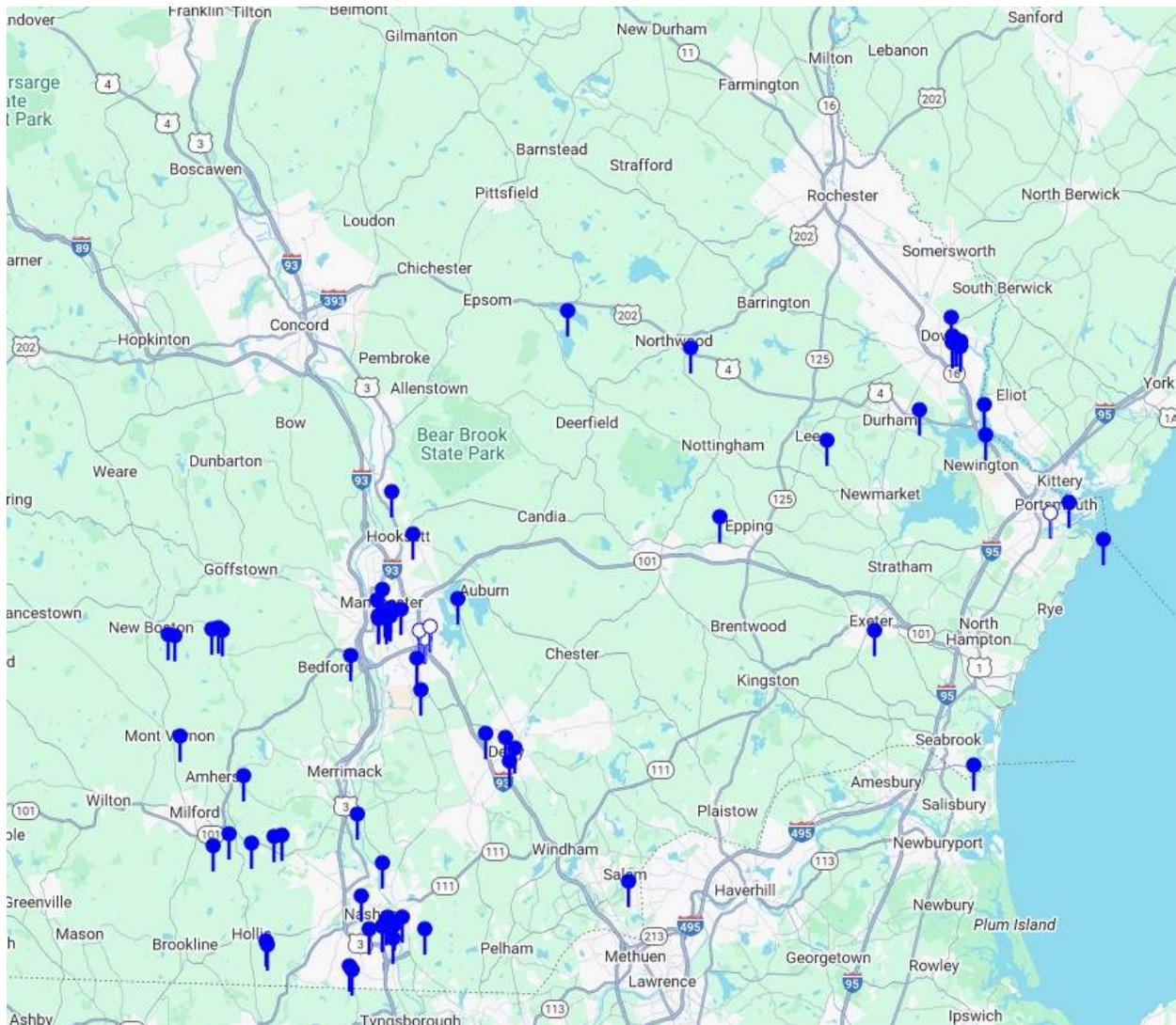


Figure 6: Map of Other Safety Improvement Requests from Survey

Some key takeaways from the other safety input include:

- **Street Lighting:** The need for better street lighting at key intersections and along routes is highlighted to improve visibility and safety for drivers, pedestrians, and cyclists.
- **Secure Bike Parking:** As bike infrastructure expands, there is a call for secure bike racks to reduce the risk of bike theft and encourage more people to cycle.
- **Crosswalk Signage:** There is a demand for improved crosswalk signage and other safety measures in high-traffic areas to prevent accidents and near misses.
- **Public Transit Expansion:** There is a strong call for expanding public transit services, including more frequent buses, longer operating hours, and better connectivity between towns to reduce car dependency and improve pedestrian safety.

- **Traffic Signal Adjustments:** Suggestions include reconfiguring traffic signals during peak hours and implementing adaptive signal timing to improve traffic flow and reduce congestion.
- **Speed Control:** There is a need for better speed enforcement and traffic calming measures, such as speed bumps and stop signs, to ensure safer roads for pedestrians and cyclists.

Public Webpage

For the Roadway Safety Action Plans, a web page was developed and hosted on the Strafford Regional Planning Commission's website to provide comprehensive information about the Roadway Safety Action Plans. This page includes an overview of the Roadway Safety Action Plans and background on the funding source—USDOT's SS4A program. Graphs were included displaying data on fatal and serious injury crashes over the past five years for each of the four MPOs, based on information from the New Hampshire Department of Transportation. Additionally, the page features details regarding stakeholder and committee meetings. To help community members understand the plan's goals, the web page explains the Safe System Approach to transportation safety and its alignment with New Hampshire's SHSP.

Existing Efforts

2022-2026 New Hampshire Strategic Highway Safety Plan

The New Hampshire Strategic Highway Safety Plan (SHSP) is an integral component of the State's Highway Safety Improvement Program (HSIP). This Federal-aid program utilizes funds to implement strategies and countermeasures aimed at reducing fatalities and serious injuries on all public roads. Each State receives HSIP funding and develops a report for how the money will be used on infrastructure related projects that align with the SHSP's Critical Emphasis Areas (CEAs).

The RPC Safety Action plan follows a similar data-driven and multidisciplinary process to the SHSP development. In both plans, safety is the top focus, and both have emphasis areas outlining the key crash types and risk, listing specific strategies for addressing the safety problems. Both approaches use the Safe System approach. Through this comprehensive approach, New Hampshire aims to create a safer, more sustainable transportation environment that protects all road users and supports the state's vision of zero traffic-related fatalities and serious injuries.

Critical Emphasis Areas (CEAs)³



Intersections – The junction of two or more roadways.



Roadway Departure – Crashes involving drivers drifting out of their lanes into opposing traffic or off the roadway.



Distracted Driving – Any non-driving activity that a person engages in while driving that causes inattentiveness or distracts them from the primary task of driving. Four main types of distraction are visual, manual, cognitive, and drowsiness.



Impaired Driving – Driving under the influence of alcohol and/or drugs.



Speed and Aggressive Driving – Speeding is driving above speed reasonable and proper for the roadway conditions.



Vehicle Occupant Protection – Vehicle occupant protection is the proper use of seat belts, child safety restraints, and other vehicle safety features that help to avoid or reduce the severity of injuries that might result from a crash.



Older Drivers – Crashes involving drivers aged 65 and older.



Teen Traffic Safety – Crashes involving drivers 18 and under.



Vulnerable Roadway Users (Motorized) – Crashes involving motorcyclists or other motorized vulnerable roadway users (i.e., scooters or Off-Highway Recreational Vehicles [OHRVs]).



Vulnerable Roadway Users (Non-Motorized) – Crashes involving pedestrians (including wheelchair users), bicyclists, and e-bikes.

³ New Hampshire 2022-2026 Strategic Highway Safety Plan

Local, Regional, and State Plans

Local, regional, and state transportation plans were reviewed for relevance to roadway safety and alignment with Safety Action plan goals and strategies. Plans reviewed included the following:

State Plan Summaries

2022-2026 New Hampshire Strategic Highway Safety Plan (SHSP)

The 2022-2026 New Hampshire Strategic Highway Safety Plan (SHSP) is an ambitious initiative aimed at achieving zero fatalities and serious injuries on state roadways. Focus areas include intersection safety, preventing roadway departures, and mitigating distracted and impaired driving through education and stricter enforcement. The plan also addresses speed management, vehicle occupant protection, and safety improvements for vulnerable road users like pedestrians, cyclists, and motorcyclists. Collaboration with local, regional, and national entities is essential, along with community involvement and stakeholder engagement. The SHSP emphasizes a data-driven, adaptable approach for deploying targeted safety interventions and enhancing regional safety efforts. It provides a valuable framework for regional safety action plans by advocating for prioritizing interventions in high-risk areas based on data analysis. The plan develops targeted strategies for each critical emphasis area, tailored to specific regional needs, ensuring continuous improvement through regular reviews and updates based on new data and feedback.

2022 New Hampshire Highway Safety Plan (HSP)

The New Hampshire Highway Safety Plan (HSP) is a detailed strategy aimed at enhancing the safety of all road users in the state. This plan builds on previous efforts and incorporates updated data and methodologies to address current safety challenges effectively. Developed by the New Hampshire Office of Highway Safety, the plan targets key issues such as speeding, impaired driving, and seatbelt usage, citing increases in speed-related fatalities and impaired driving incidents as critical areas of concern. To address these issues, the HSIP combines education, enforcement, and engineering solutions, including public awareness campaigns, stricter penalties, increased police presence, and roadway improvements. The plan relies on data-driven decision-making to allocate resources effectively, monitor the success of interventions, and make necessary adjustments. Collaboration with local, regional, and national organizations and community involvement is emphasized to align safety efforts and share best practices. Overall, the HSIP provides a thorough framework to improve road safety and foster a safer driving environment statewide.

2023 New Hampshire Bicycle and Pedestrian Plan

The 2023 New Hampshire Bicycle and Pedestrian Plan outlines a comprehensive strategy aimed at enhancing the safety and accessibility of active transportation across the state. Building on previous efforts, the plan integrates recommendations from the Strategic Highway Safety Plan (SHSP) and aims to make all modes of travel, including biking and walking, safer and more convenient for users of all ages and abilities. Key elements include addressing pedestrian fatalities, which accounted for 9% of total roadway fatalities between 2015-2019, enhancing infrastructure, and promoting policies such as Complete Streets in various communities. The plan also stresses the importance of developing a network of bike

facilities and addressing gaps in the sidewalk infrastructure to encourage more sustainable and healthy transportation options. Through these measures, the state aims to create a safer and more connected environment for pedestrians and cyclists.

2023 New Hampshire Vulnerable Road User Safety Assessment (VRUSA)

The 2023 New Hampshire Vulnerable Road User Safety Assessment (VRUSA) is a crucial initiative focused on enhancing the safety of pedestrians and bicyclists on the state's roads. This assessment is a critical part of New Hampshire's Highway Safety Improvement Program and primarily aims to reduce the rising number of fatal and serious crashes involving these vulnerable groups through data-driven analysis. Mandated by federal guidelines, the VRUSA identifies high-risk areas and proposes targeted strategies and interventions to address these risks. Key actions include improving road design, increasing public awareness, and fostering collaborations among various stakeholders, including local, regional, and national organizations. The assessment also emphasizes continuous improvement and adaptation based on ongoing data collection and feedback, ensuring that New Hampshire's roads become increasingly safer for non-motorists.

2024 New Hampshire Highway Safety Implementation Program (HSIP)

The 2024 New Hampshire Highway Safety Improvement Program (HSIP) is a targeted initiative mandated due to the state's failure to meet significant safety performance measures in 2021. It focuses on critical areas such as reducing fatalities and improving safety for all road users, especially vulnerable road users like pedestrians and bicyclists, through data-driven efforts. Developed by the New Hampshire Department of Transportation (NHDOT), the plan integrates strategies across education, enforcement, and engineering solutions to address key safety issues including speeding, impaired driving, and inadequate seatbelt usage. Emphasizing collaboration, the HSIP involves partnerships with local, regional, and national organizations to enhance safety measures and share best practices. This comprehensive approach ensures continuous improvement, guided by regular updates and feedback based on emerging data.

Local & Regional Plan Summaries

2015 Rockingham Planning Commission Regional Master Plan

The 2015 Rockingham Planning Commission (RPC) Regional Master Plan provides a comprehensive framework for the region's development, with a significant emphasis on transportation. The transportation section addresses several critical issues and challenges, such as aligning limited financial resources with the growing needs of the transportation network. The plan emphasizes the preservation, maintenance, and modernization of the existing transportation system, aiming to improve safety and operational efficiency. Key safety takeaways include the implementation of traffic calming measures, enhancement of road infrastructure, and development of pedestrian and bicycle pathways to improve safety for non-motorized users. The plan also integrates "Complete Streets" policies to ensure that streets are designed for safe use by all, regardless of age, ability, or mode of transportation. By following these strategies, the RPC aims to create a safer, more efficient, and sustainable transportation network, while promoting regional collaboration and long-term resilience.

2045 Long Range Transportation Plan

The 2045 Long-Range Transportation Plan (LRTP) developed by the Rockingham Planning Commission (RPC) is a federally mandated planning document that outlines significant transportation infrastructure improvements for the next 25 years. Covering the Metropolitan Planning Area, the LRTP addresses key areas including automotive, transit, bicycle, pedestrian, and freight transportation. The plan sets specific goals, strategies for achieving them, and performance metrics to monitor progress. Utilizing data-driven analysis and continuous public involvement, the LRTP prioritizes projects designed to enhance regional connectivity, safety, and sustainability. Compliance with federal regulations as per 23 CFR Part 450.324 ensures the plan integrates effectively with broader regional and national transportation strategies. By focusing on land use coordination, multimodal connectivity, and fiscal constraints, the plan aims to develop a comprehensive and resilient transportation network that addresses current conditions and anticipates future needs.

2023-2026 Rockingham Planning Commission Transportation Improvement Program (TIP)

The 2023-2026 Rockingham Planning Commission (RPC) Transportation Improvement Program (TIP) is a structured, multi-year initiative that presents a prioritized list of transportation projects slated for implementation within the Metropolitan Planning Organization (MPO) area over four Federal fiscal years (2023-2026). This TIP was officially adopted on February 8, 2023, and is developed collaboratively by the MPO, regional transit agencies, and the New Hampshire Department of Transportation (NHDOT). The TIP focuses on addressing regional transportation needs through projects aimed at enhancing connectivity, safety, and infrastructure for various transportation modes, including automotive, transit, bicycle, and pedestrian paths. It aligns with the broader Metropolitan Transportation Plan (MTP) and adheres to federal regulations, ensuring consistency and coordination with the Statewide Transportation Improvement Program (STIP). Regular amendments and updates are incorporated to reflect evolving priorities and regulatory compliance, supported by community and stakeholder engagement to maintain the program's responsiveness to the region's dynamic transportation challenges.

2022-2023 Unified Planning Work Program (UPWP)

The 2022-2023 Unified Planning Work Program (UPWP) of the Rockingham Metropolitan Planning Organization (MPO) outlines the planning priorities and tasks to be addressed within the two-year period, emphasizing a unified approach to transportation planning. Required under the 3Cs (Continuing, Cooperative, Comprehensive) metropolitan planning process, the UPWP ensures compliance with Metropolitan Planning Rules. The document specifies the sources and amount of available funding to achieve these objectives, providing a comprehensive overview of all activities to be undertaken by the MPO, prioritizing projects, and ensuring the development of a safe, reliable, and sustainable transportation network. It integrates planning efforts across different levels of government and community stakeholders, thereby fostering regional collaboration and addressing both state and local transportation needs.

Data Analysis Background

This Safety Action Plan is driven by data analysis that identified when, where, and how crashes occurred in the Rockingham Planning Commission (RPC) region. Fatal, serious injury, minor injury, possible injury, and property damage only crashes were analyzed for the period of 2018-2022. Non-fatal crash data which is managed by the Department of Motor Vehicles' DMV VISION Crash Records Management System (CRMS) was distributed to the consultant for analysis. The data source for fatal crashes was the federally maintained Fatality Analysis Reporting System (FARS).

This action plan focuses on addressing crashes with the most severe injury outcomes. This includes fatal, serious, and minor injury crashes. The analysis for this plan includes a focus on the 2022-2026 New Hampshire Strategic Highway Safety Plan emphasis areas. This alignment helps the RPC to focus roadway safety improvement efforts on locations, policies, and programs that have the greatest chance in moving towards zero fatalities and serious injuries by 2050.

General Trends

During the 5-year period from 2018 to 2022, there were 65 fatal crashes, 282 crashes resulting in serious injury, and 2,270 minor injury crashes in the Rockingham Planning Commission region. **Error! Reference source not found.** shows the trend of fatal, serious, and minor injury crashes.

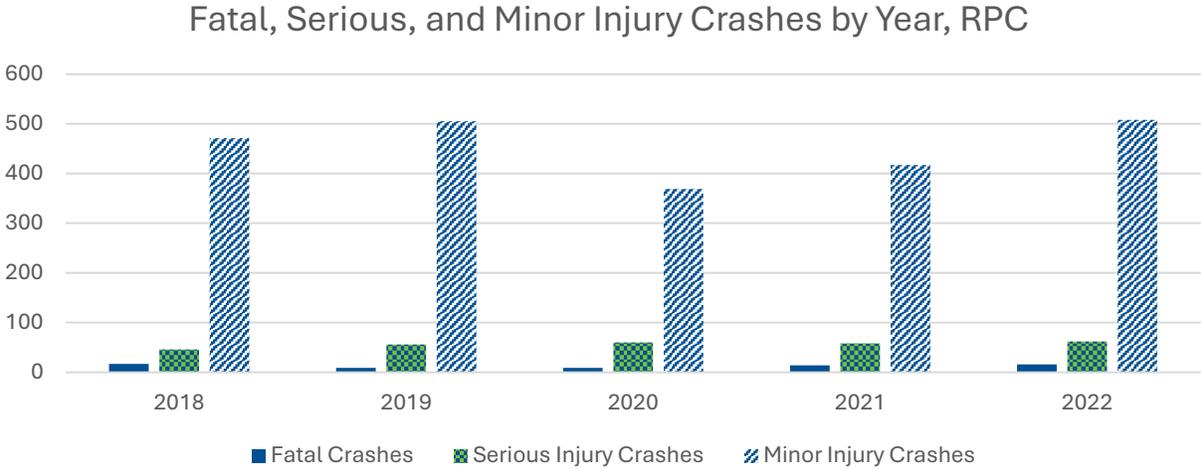
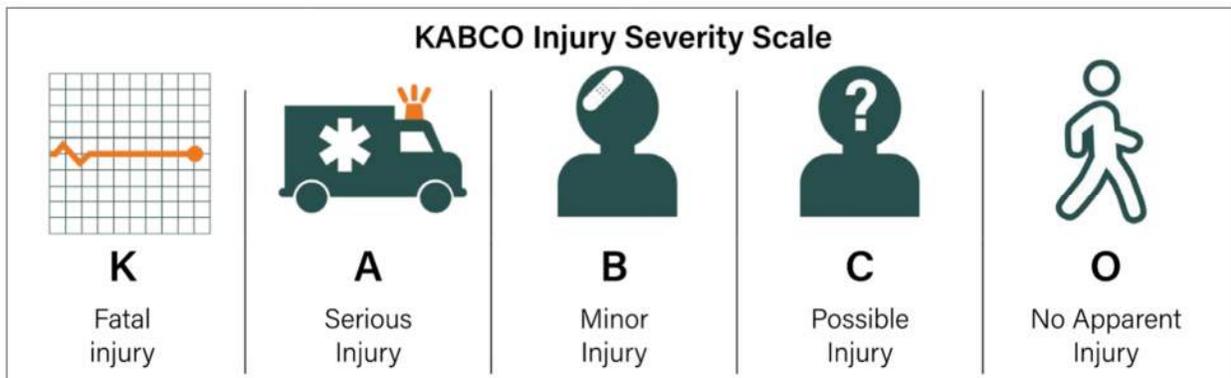


Figure 7: Fatal, Serious, and Minor Injury Crashes by Year, RPC

Table 1: Crash Totals by Severity shows the total number of crashes across levels of severity – fatal, serious injury, minor injury, possible injury, and property damage only⁴. Total crashes reached a low in 2020, during the widespread COVID-19 related restrictions. However, the decrease in total crashes did not decrease the number of serious injuries. In fact, the second highest total for serious injury crashes was recorded in 2020. A potential reason is that as traffic volume decreases, more open roads allow drivers to drive faster, leading to more severe injury outcomes. Over the 5-year period between 2018 and 2022, the overall percentage of crashes that resulted in a fatal, serious, or minor injury⁵ increased each year. In 2018, 11% of crashes resulted in fatality, serious injury, or minor injury, but by 2022, the proportion increased to 13.3%.

Crash Severity	2018	2019	2020	2021	2022	Row Total
Fatal	17	9	9	14	16	65
Serious Injury	46	56	60	58	62	282
Minor Injury	471	505	369	417	508	2,270
Possible Injury	192	218	191	168	187	956
Property Damage Only	4,135	4,312	3,036	3,425	3,624	18,532
Column Total	4,861	5,100	3,665	4,082	4,397	22,105

Table 1: Crash Totals by Severity



⁴ Victims who suffer a serious or minor injury experience broken bones, severe or medium bleeding, unconsciousness, and dislocations. Possible injury involves minimum bleeding, scrapes, and/or bruises. Source KABCO Injury Classification Scale and Definitions – FHWA ([chrome-extension://efaidnbmninnbpcjpcglclefindmkaj/https://highways.dot.gov/media/20141](https://highways.dot.gov/media/20141)).

⁵ The KABCO scale is a functional measure of the injury severity for any person involved in the crash. K-Fatal Injury, A-Suspected Serious Injury, B-Suspected Minor Injury, C-Possible Injury, and O-No Apparent Injury

Emphasis Area Analysis

Table 2: Crash Severity by Emphasis Area shows the total crashes recorded during the 5-year period for each New Hampshire SHSP emphasis area. SHSP emphasis areas are listed as rows and broken down by injury severity as columns. Please note that the columns do not add up to the 'Total' shown in the column header. Crashes can involve multiple emphasis areas at once – for example, a crash involving a distracted driver who is speeding and driving while impaired would involve three emphasis areas.

The three emphasis areas with the most crashes in the RPC were:

- Older Drivers (4,514 crashes)
- Distracted Driving (4,341 crashes)
- Occupant Protection (2,387 crashes).

The 'Percent of Emphasis Area Resulting in KAB' column in Table 2: Crash Severity by Emphasis Area shows the percent of total crashes for each emphasis area that resulted in a fatal (K), serious (A), or minor (B) injury. The three leading emphasis areas with the highest occurrence of fatal, serious, and minor injuries are Vulnerable Motorized Users – Motorcycles/Mopeds (60%), Vulnerable Non-Motorized Users – Bikes/Pedestrians (57%), and Speed and Aggressive Driving (28%).

Table 2: Crash Severity by Emphasis Area

SHSP Emphasis Area Crashes	Fatal (K) n=65	Serious Injury (A) n=282	Minor Injury (B) n =2,270	Possible Injury (C) n = 956	Property Damage Only (O) n = 18,532	Percent of Emphasis Area Resulting in KAB	Percent of Total KAB	Row Total
Intersections	14	7	126	62	862	14%	6%	1,071
Roadway Departure	38	54	298	115	1,401	20%	15%	1,906
Distracted Driving	4	44	527	217	3,549	13%	22%	4,341
Impaired Driving	18	50	196	58	752	25%	10%	1,074
Speed and Aggressive Driving	26	17	81	12	300	28%	5%	436
Occupant Protection	37	68	386	138	1,758	21%	19%	2,387
Older Drivers (65+)	20	64	531	217	3,682	14%	24%	4,514

Teen Drivers (18 and Younger)	5	11	224	82	1,743	12%	9%	2,065
Vulnerable Motorized Users – Motorcycles and Mopeds	16	77	240	48	176	60%	13%	557
Vulnerable Non-Motorized Users – Ped/Bikes	8	11	91	16	67	57%	4%	193

The three emphasis areas that accounted for the greatest proportion of the 65 fatal crashes during the 5-year period were Roadway Departure (38 crashes, 58%), Speed and Aggressive Driving (26 crashes, 40%), and Occupant Protection (37 crashes, 57%). Figure 8: Crash Severity by Emphasis Area shows the crash severity outcomes for these three emphasis areas. The large disparity in fatal crashes versus non-fatal crashes indicates a disproportionate number of fatal crashes for these emphasis areas. For instance, Speed and Aggressive Driving was a factor in only 1% of non-fatal Roadway Departure crashes, but 47% of fatal ones. Similarly, improper Occupant Protection was a factor in 12% of non-fatal Roadway Departure crashes, but 47% of fatal ones. This high level of overlap can be addressed through countermeasure strategies identified in this plan. Countermeasure strategies that address these emphasis areas can help make significant progress in reaching the target of a 50% reduction in fatal crashes by 2035 and 0 fatal crashes by 2050.

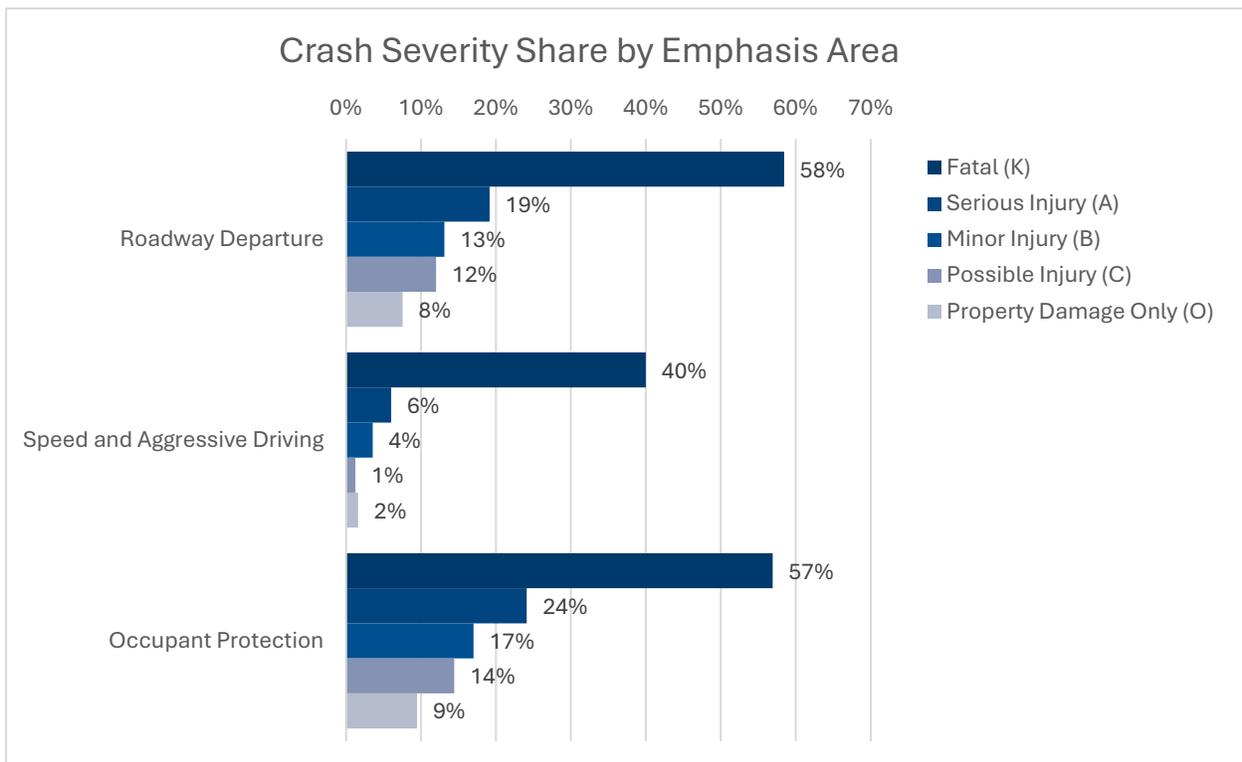


Figure 8: Crash Severity by Emphasis Area

Error! Reference source not found. shows the remaining 7 emphasis areas. Teen Drivers are evenly distributed across all crash severities, indicating that crashes related to Teen Drivers are not

overrepresented or underrepresented in any severity. Older Drivers are slightly overrepresented in fatal crashes but are otherwise evenly distributed across non-fatal severities. Crashes involving bicyclists and pedestrians (Vulnerable Non-Motorized Users) are overrepresented in fatal crashes, accounting for 12% of fatal crashes, but 4% of serious and minor injury crashes. Vulnerable Motorized Users – Motorcycles/Mopeds are overrepresented in fatal and serious injury crashes, while Distracted Driving is underrepresented in those crash severities. Gathering accurate data on Distracted Driving is difficult, and it is thus believed to be underreported.

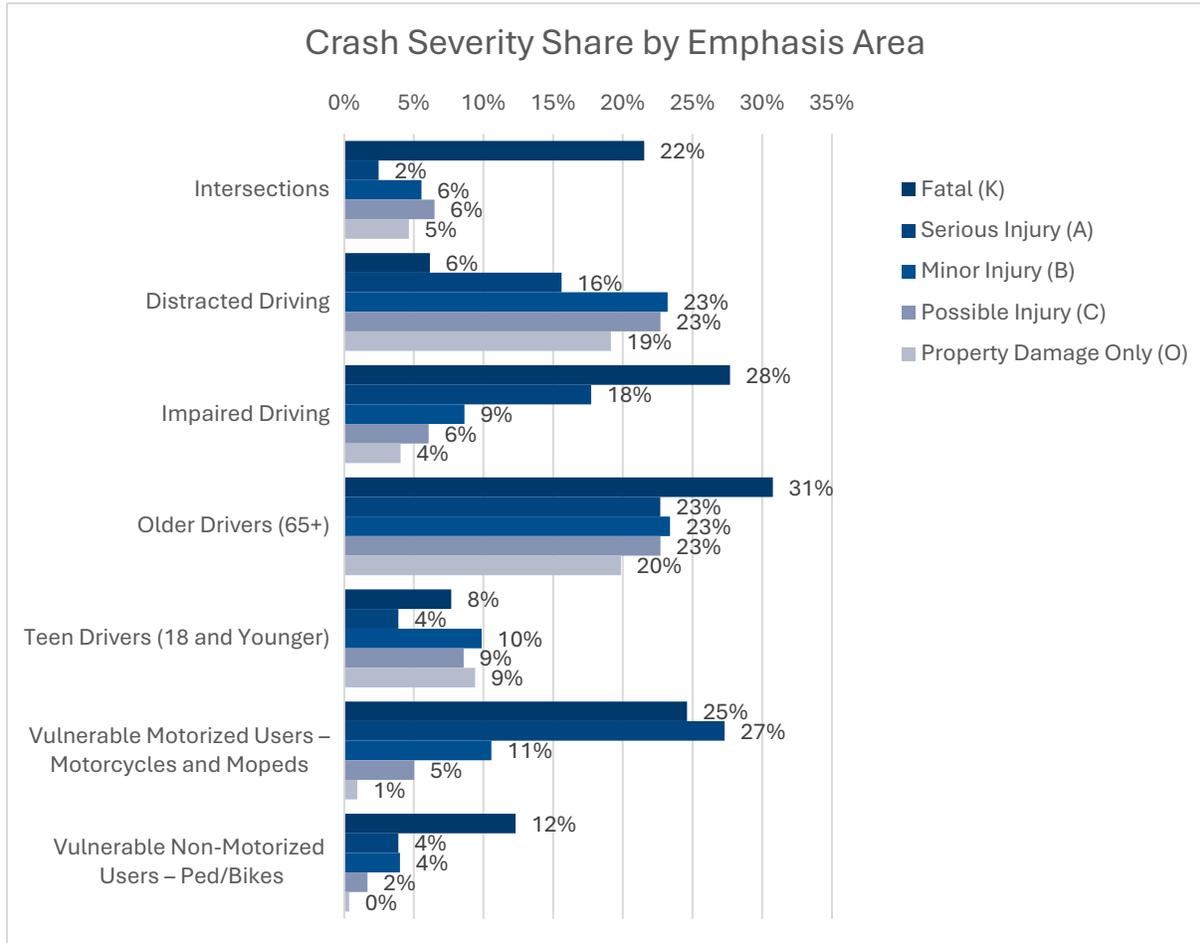


Figure 9: Crash Severity Share by Emphasis Area

Emphasis Area Highlights

The following section provides highlights of crash factors for the following five emphasis areas; Roadway Departure, Occupant Protection, Speed and Aggressive Driving, Vulnerable Motorized Users – Motorcycles and Mopeds, and Vulnerable Non-Motorized Users – Bicycles and Pedestrians.

Roadway Departure

- 38 (58%) of the 65 fatal crashes during the 5-year period involved a Roadway Departure.
- Approximately 20% of all Roadway Departure crashes resulted in a fatal, serious, or minor injury.

- There were a total of 1,906 crashes involving a Roadway Departure during the 5-year period.
- Of the 38 fatal Roadway Departure Crashes, 18 (47%) also involved Speed and Aggressive Driving.
- 13 (34%) of the 38 Roadway Departure crashes occurred on a curved roadway.
- 22 (58%) of the 38 Roadway Departure crashes occurred in dark lighting conditions.

Occupant Protection

- 37 of the 65 fatal crashes (57%) during the 5-year period involved improper Occupant Protection. During the 5-year period, the average seat belt usage rate was 74% in New Hampshire, and 91% Nationwide⁶.
- Approximately 21% of all Occupant Protection crashes resulted in a fatal, serious, or minor injury.
- There were a total of 2,387 crashes involving improper Occupant Protection during the 5-year period.
- 11 (30%) of the 37 fatal Occupant Protection crashes involved Impaired Driving.
- The rate of unbelted occupants is higher in the early morning hours (12:00 AM through 5:00 AM).

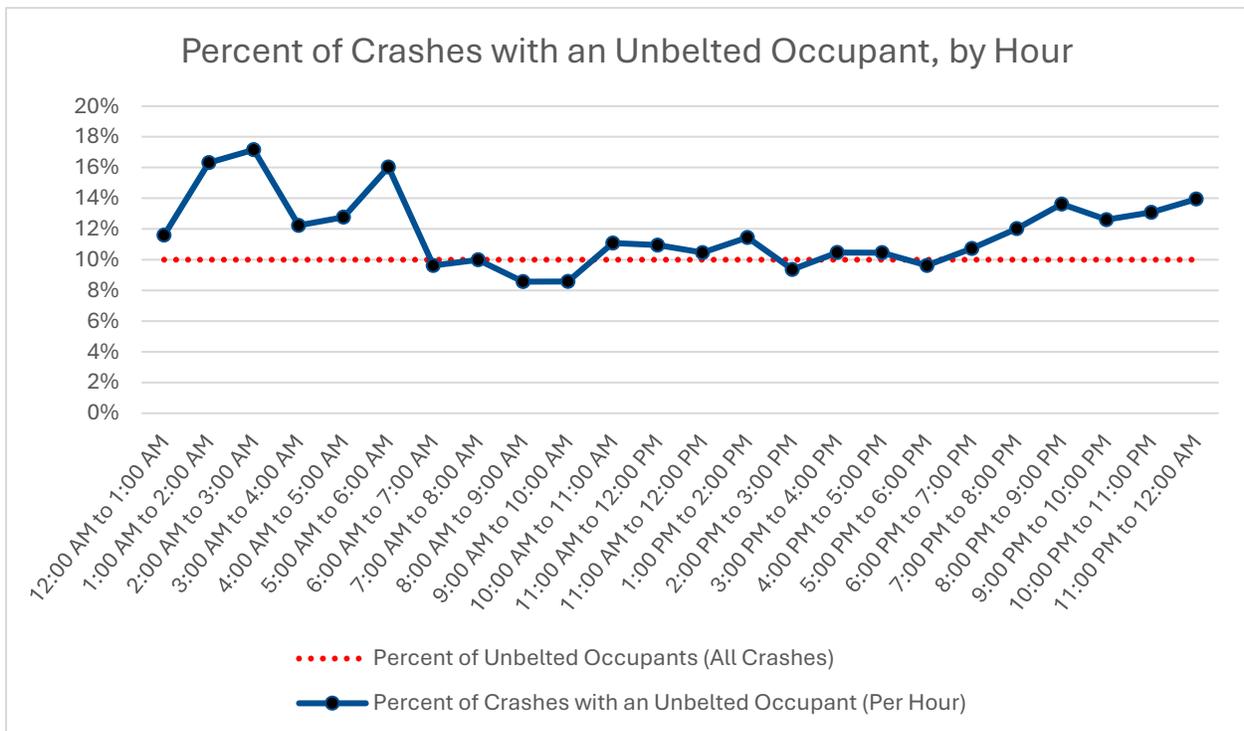


Figure 10: Percent of Crashes with an Unbelted Occupant, By Hour

Speed and Aggressive Driving

- 26 (40%) of the 65 fatal crashes during the 5-year period involved Speed and Aggressive Driving.
- 28% of Speed and Aggressive Driving Crashes resulted in a fatal, serious, or minor injury.
- There were 436 crashes involving Speed and Aggressive Driving during the 5-year period.
- 12 (46%) of the 26 fatal Speed and Aggressive Driving crashes also involved Impaired Driving.

⁶Seat Belt Use in 2022 – NHTSA (<https://crashstats.nhtsa.dot.gov/Api/Public/Publication/813487>)

- 62% of fatal crashes involving Speed and Aggressive Driving occurred in dark lighting conditions. Lower traffic volumes in the late evening and early morning hours allow for drivers to reach higher speeds, which leads to more severe injury outcomes in crashes.

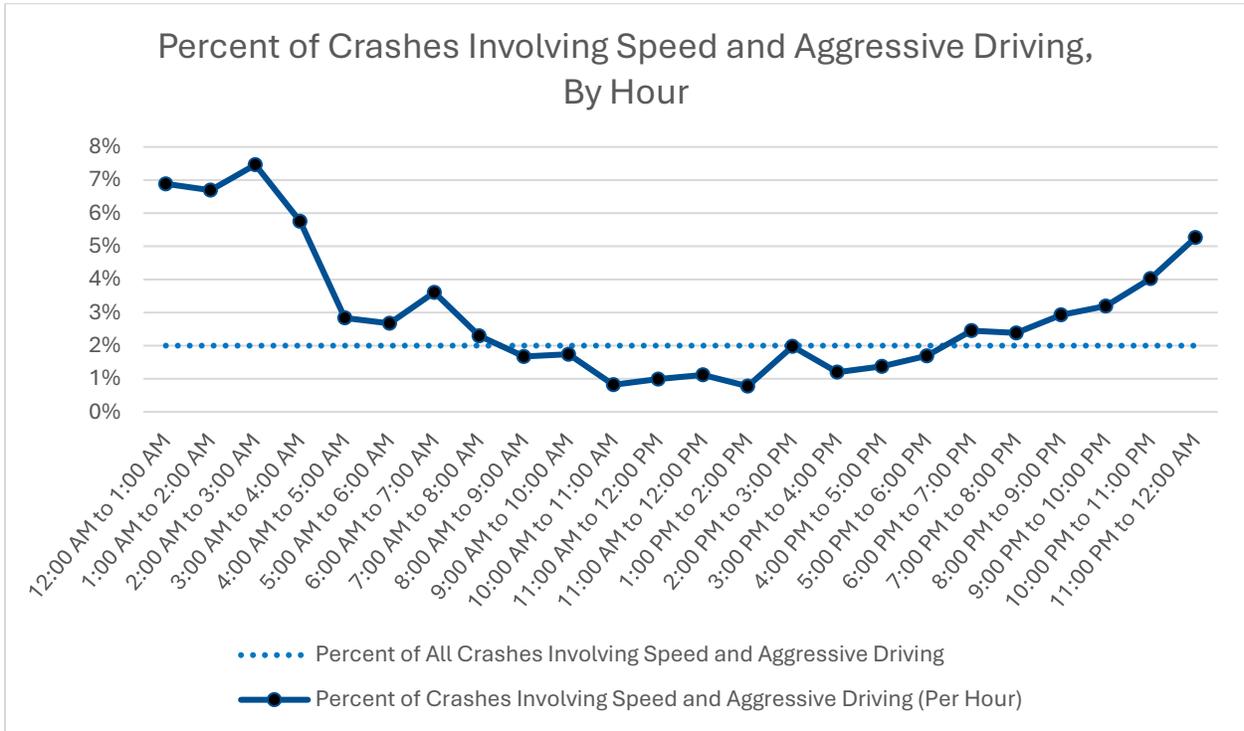


Figure 11: Percent of Crashes Involving Speed and Aggressive Driving, By Hour

Vulnerable Motorized Users – Motorcycle and Mopeds

- 16 (25%) of the 65 fatal crashes involved a Vulnerable Motorized User during the 5-year period.
- Approximately 60% of all Vulnerable Motorized User crashes resulted in a fatal, serious, or minor injury. This is the highest rate of all emphasis areas.
- There were a total of 557 crashes involving a Vulnerable Motorized User during the 5-year period.
- 9 (56%) of the 16 fatal crashes involved riders not wearing a helmet. 17% of serious, and minor injury crashes involved no helmet usage.
- 8 (50%) of the 16 fatal Vulnerable Motorized User crashes also involved Speed and Aggressive Driving by the operator.
- 8 of the 16 (50%) fatal Vulnerable Motorized User crashes occurred on a Local Road or Street.

Vulnerable Non-Motorized Users – Pedestrians and Bicycles

- 8 (12%) of the 65 fatal crashes involved a Vulnerable Non-Motorized User during the 5-year period.
- Approximately 57% of all Vulnerable Non-Motorized User crashes resulted in a fatal, serious, or minor injury.
- There were a total of 193 crashes involving a Vulnerable Non-Motorized User during the 5-year period.
- The 8 fatal crashes occurred on three different road classifications – Minor Arterial (4), Principal Arterial (2), and Local Road or Street (2).

- 171 (89%) of the 193 Vulnerable Non-Motorized User crashes occurred in a non-intersection location. This includes 6 of the 8 fatal crashes, and 10 of the 11 serious injury crashes.
- Approximately 16% of fatal, serious, and minor injury Vulnerable Non-Motorized User crashes involved an older driver, 5% involved a teen driver, and 15% involved a distracted driver.

Crossmatrix Analysis

When a crash occurs, there can be multiple factors that caused the crash. When analyzing crashes to identify trends in emphasis area involvement, we acknowledge the same possibility – there can be an older driver, who is not wearing their seatbelt, and hits a pedestrian. Stated another way, a single crash can involve multiple emphasis areas. Table 3 below shows the overlap between emphasis areas in crashes that resulted in a fatal, serious, or minor injury – the percentages listed are in reference to the emphasis area in the column header. For example, 25% of Impaired Driving crashes also involved a Roadway Departure.

The highest overlap in Table 3 is observed at the intersection of Impaired Driving and Occupant Protection. Approximately 32% of Impaired Driving crashes also involved improper Occupant Protection (unbelted passengers). This overlap indicates that multiple risk-taking behaviors are often factors in a crash. Enhanced enforcement of Impaired Driving, increased outreach in schools, and media campaigns can target the overlap of these risk-taking behaviors. The second highest overlap in Impaired Driving crashes are Roadway Departures, with 25% of Impaired Driving crashes involving a Roadway Departure.

Strategies for addressing Teen Driver safety should emphasize the dangers of distracted driving. While teen drivers were involved in approximately 9% of fatal, serious, and minor injury crashes, 28% of those crashes involved distracted driving. Distracted driving is believed to be underreported in non-fatal crashes, and therefore the level of involvement may be even higher.

Approximately 22% of people in the RPC are aged 65 or older, however, it is unknown what percent of older people have a driver's license. In the RPC, 24% of fatal, serious, and minor injury crashes involved people aged 65 or older. Older drivers were involved in 31% of fatal, serious, and minor injury intersection crashes during the 5-year period, which is the highest percent overlap for the Older Driver emphasis area. While the aging process affects everyone differently, intersection design should meet the needs of older drivers, which may include installing high-visibility signal backplates, high-visibility signage, and the distribution of educational materials which advise the public on new design elements.

It's also important to note the disparities that are present in the chart. For example, only 8% of Motorcycle and Moped crashes involved Speeding, however, approximately 21% of Speeding involved crashes involved a motorcycle or moped. This suggests that while speeding is not a prevalent problem for all motorcycle or moped involved crashes, speeding crashes that involved a motorcycle or moped operators disproportionately result in a fatal, serious, or minor injury due to their vulnerability and lack of protection. This disparity highlights the point that safety improvements that target a specific problem -- for example road diets to reduce speeding -- can provide an outsized benefit to other goals, like reducing the severity of Motorcycle and Moped crashes.

Percent of 2018-2022 RPC region crashes resulting in fatal, serious, and minor injury crashes (KAB)	<i>Intersections</i>	<i>Roadway Departure</i>	<i>Distracted Driving</i>	<i>Impaired Driving</i>	<i>Speeding</i>	<i>Occupant Protection</i>	<i>Older Drivers (65+)</i>	<i>Teen Drivers (18 and Younger)</i>	<i>Motorcycles and Mopeds</i>	<i>Bikes and Pedestrians</i>
<i>Intersections</i>	-	2%	6%	3%	6%	5%	7%	8%	5%	11%
<i>Roadway Departure</i>	4%	-	13%	25%	20%	22%	10%	9%	12%	2%
<i>Distracted Driving</i>	23%	19%	-	12%	3%	23%	20%	28%	13%	15%
<i>Impaired Driving</i>	5%	17%	6%	-	26%	17%	5%	3%	8%	10%
<i>Speeding</i>	5%	6%	1%	12%	-	7%	2%	7%	8%	1%
<i>Occupant Protection</i>	16%	28%	20%	32%	27%	-	17%	17%	13%	8%
<i>Older Drivers (65+)</i>	31%	16%	21%	11%	10%	22%	-	12%	17%	16%
<i>Teen Drivers (18 and Younger)</i>	14%	5%	11%	3%	14%	8%	5%	-	5%	5%
<i>Motorcycles and Mopeds</i>	10%	10%	7%	10%	21%	9%	9%	7%	-	2%
<i>Bikes and Pedestrians</i>	8%	1%	3%	4%	1%	2%	3%	2%	1%	-
Total	6%	15%	22%	10%	5%	19%	24%	9%	13%	4%

Table 3: Fatal (K), Serious (A), and Minor Injury (B) Crashes Crossmatrix Analysis

Systemic Analysis

The systemic analysis for this plan used crash trees to identify multiple factors that are at play in each crash. While the crossmatrix exclusively analyzes emphasis area involvement in crashes, the systemic crash tree analysis incorporates several other data fields that are of interest. For example, road classification, weather conditions, lighting conditions, road curvature, and crash types. The Systemic Analysis is distinguished from the High Injury Network analysis by its inclusion of crashes on all road classifications. The High Injury Network excludes crashes on limited access roadways, such as interstates and freeways. Crash data used to develop the crash trees was retrieved from two different sources, the FARS database for fatal crashes and New Hampshire Statewide crash dataset for all other injury crashes. The FARS database and New Hampshire Statewide crash dataset do not contain the same data categories and information for each crash, therefore it is not possible to create crash trees containing both fatal and injury crashes.

Crash Tree: Speeding Involved Crashes

The crash tree below shows a breakdown of fatal crashes that involved speeding during the 2018-2022 period in Rockingham. The crash tree also includes roadway classification and urban vs rural designation. Of the 26 fatal crashes that involved speeding during the five-year period, 12 (46%) occurred on a Local Road or Street. This finding provides an opportunity for focused speeding enforcement on Local Roads and Streets and may indicate that roadway design on Local Roads and Streets is too welcoming to speeding drivers.

Speeding Involved Fatal Crashes RPC, 2018-2022

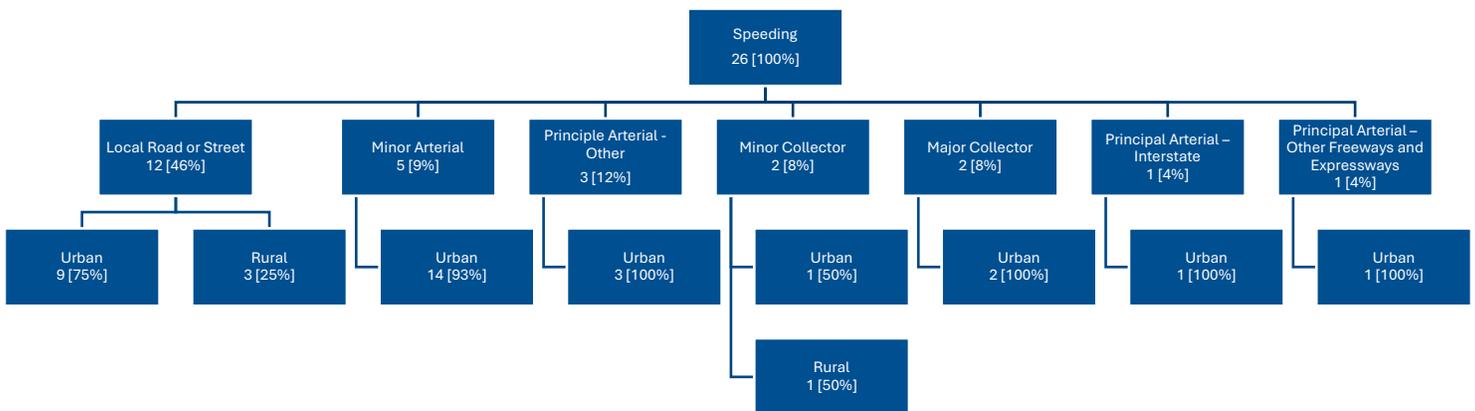


Figure 12: Speeding Involved Fatal Crashes Crash Tree

The crash tree below shows a breakdown of suspected serious injury crashes that involved speeding during the 2018-2022 period in Rockingham. The crash tree also includes roadway classification and urban vs rural

designation. Of the 17 suspected serious injury crashes that involved speeding during the five-year period, 11 (65%) occurred on a Friday, Saturday or Sunday during a non-peak hour. This finding provides an opportunity for focused speeding enforcement at the end of the week and weekends during off peak hour times.

Speeding Involved Suspected Serious Injury Crashes RPC, 2018-2022

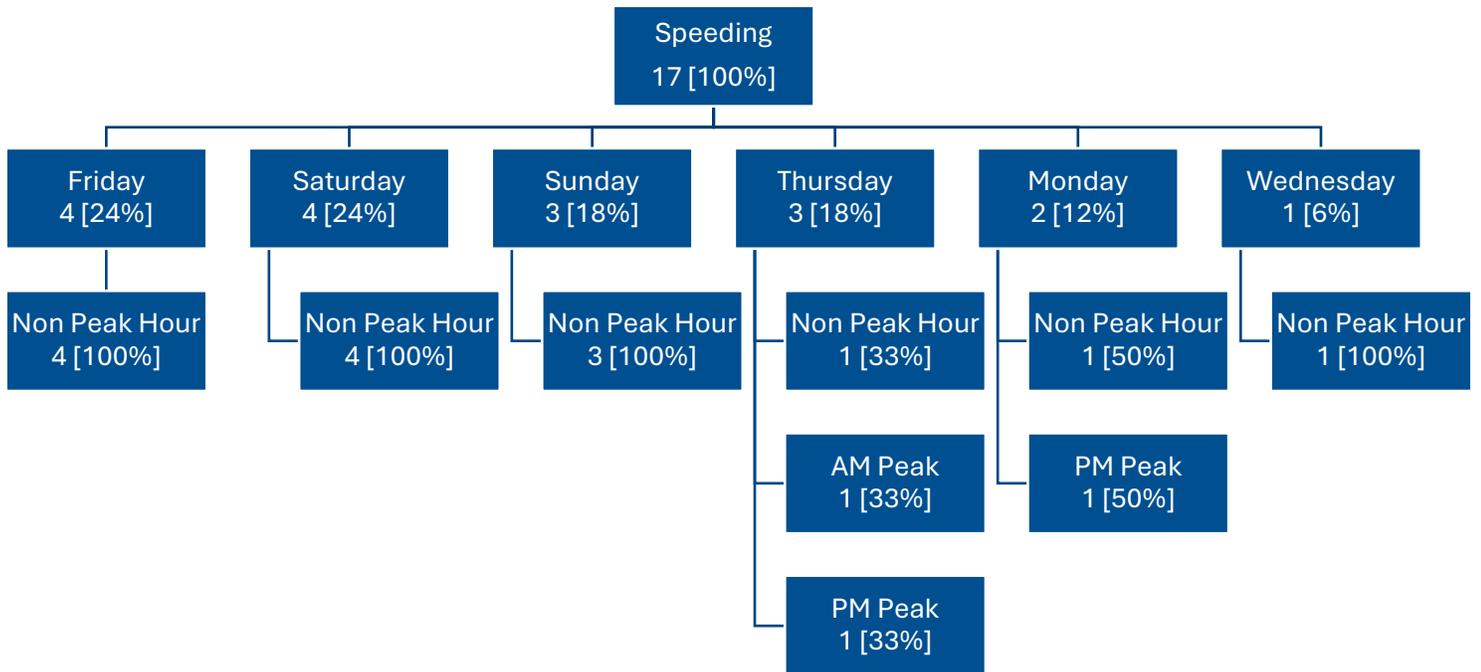


Figure 13: Speeding Involved Suspected Serious Injury Crashes Crash Tree

Crash Tree: Pedestrian Involved Crashes

When analyzing the location of pedestrian involved fatal crashes, the systemic analysis indicated that five of the six crashes occurred away from an intersection, and five of the six occurred during the nighttime. Improving lighting along corridors where pedestrians are common, and introducing mid-block crossings with Pedestrian Refuge Islands where there are long stretches between crosswalks is recommended to encourage the use of safe crossings for pedestrians. Other pedestrian safety infrastructure includes Rectangular Rapid Flashing Beacons (RRFBs) and Pedestrian Hybrid Beacons (PHBs).

Fatal Pedestrian Crashes RPC, 2018-2022

Serious Injury Pedestrian Crashes RPC, 2018-2022

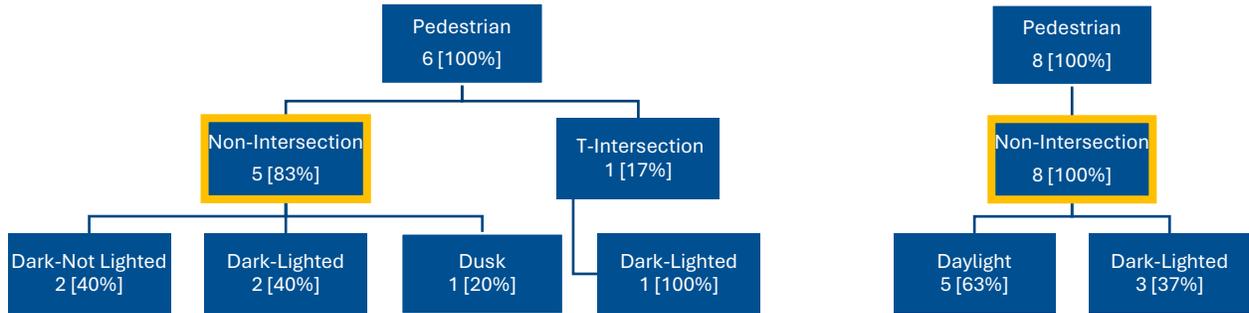


Figure 14: Pedestrian Crashes Crash Trees



Figure 15: Crosswalk Visibility Enhancements (Source: FHWA)



Figure 16: Pedestrian Hybrid Beacon (PHB) (Source: FHWA)

Crash Tree: Location of Fatal Crashes

The following crash tree shows breakdown of fatal crashes, based on whether or not they occurred at an intersection. Most fatal crashes (78%) occurred away from an intersection. Intersections are a natural conflict point since they are the convergence of road users traveling in different directions. Furthermore, 33 of the 51 non-intersection crashes (65%) did not involve a collision with a motor vehicle. Crash types for those 33 crashes include fixed object crashes (23), rollover crashes (2), pedestrian (5) or bicycle involved crashes (1), falling or jumping from a vehicle (1), and striking a railway car (1). This finding directs focus to other road design factors, like roadway curvature, pedestrian safety at non-intersection locations, and presence of fixed objects at non-intersection locations.

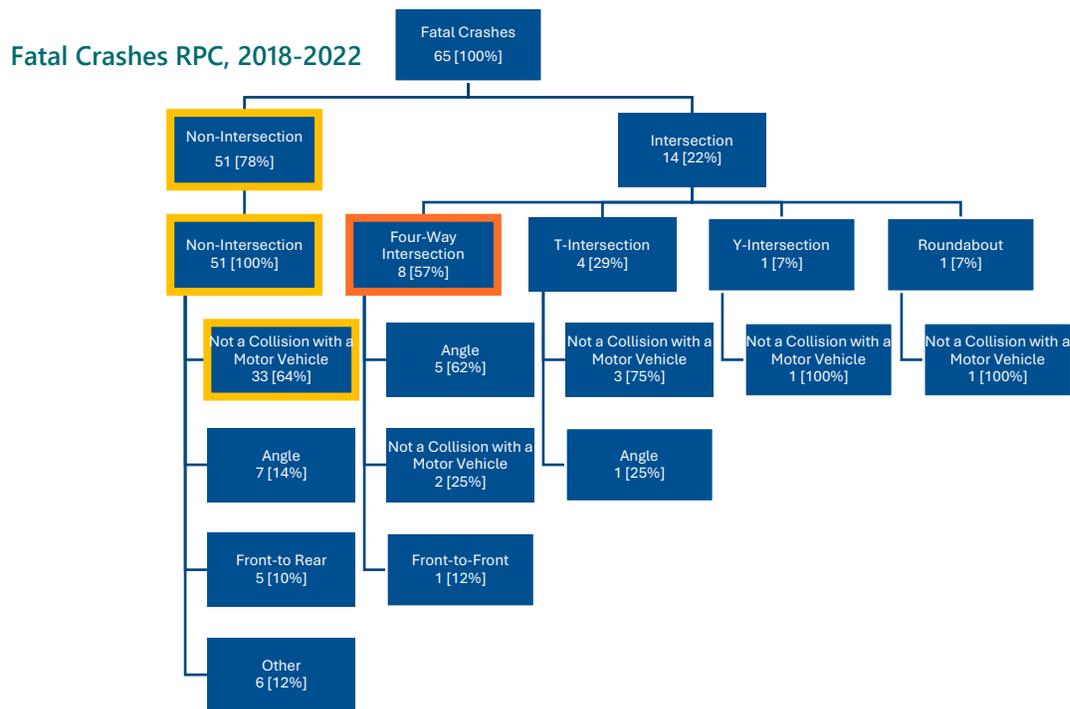


Figure 17: Fatal Crashes Crash Tree

Building on Figure 17: Fatal Crashes Crash Tree, which categorizes fatal crashes by their occurrence at intersections, we developed a crash tree to further break down these crashes by rural and urban environments. The majority of fatal crashes (86%) occurred in urban settings. Of the 65 fatalities, nine (14%) took place in rural areas, and eight of these nine rural fatalities (89%) occurred away from intersections. Additionally, six of those eight non-intersection rural crashes (74%) did not involve another motor vehicle.

In urban settings, 43 out of 56 fatal crashes (77%) happened away from intersections. Among these 43 crashes, 27 (64%) did not involve another motor vehicle. The crash tree demonstrates that fatalities in both rural and urban areas predominantly occur away from intersections and do not involve another vehicle.

These findings support the previous crash tree's conclusions, highlighting the need for countermeasures focused on other road design factors, such as roadway curvature, pedestrian safety at non-intersection locations, and the presence of fixed objects at non-intersection locations.

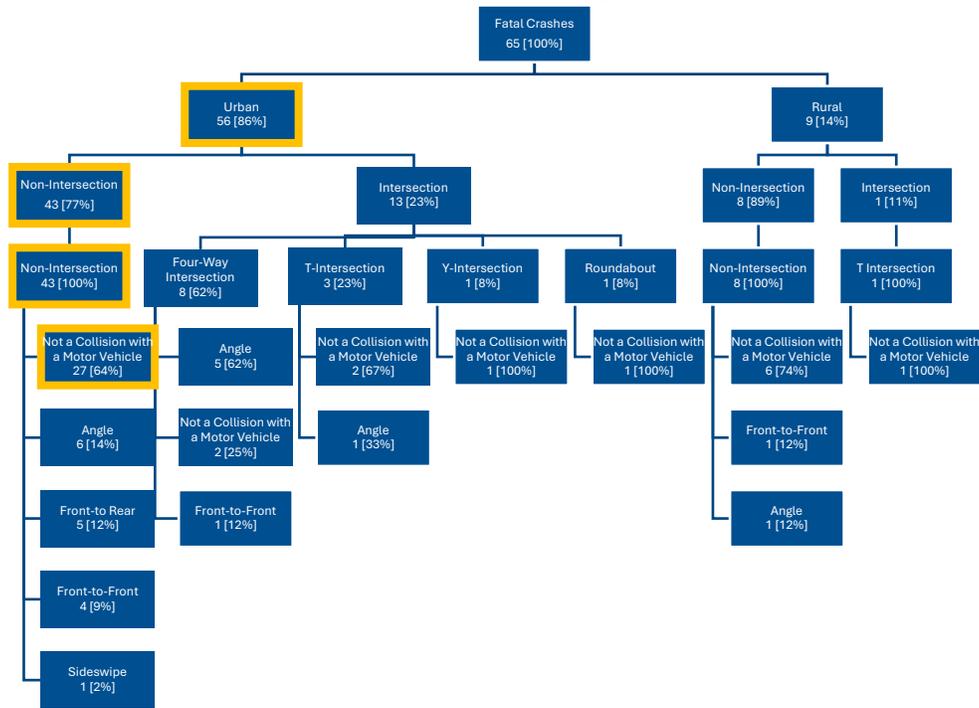


Figure 18: Fatal Crashes Crash Tree (Urban/Rural Split)

Equity Analysis

The U.S. Department of Transportation identifies census tracts that face a cumulative burden as a result of underinvestment in transportation, across five measures: Transportation Insecurity, Climate and Disaster Risk Burden, Environmental Burden, Health Vulnerability, and Social Vulnerability⁷. Census tracts are considered “Transportation Disadvantaged” if the overall index score for a given tract is in the 65th percentile (or higher) when compared to all other U.S. census tracts. Data from the USDOT Equitable Transportation Community (ETC) explorer were analyzed to identify tracts in Rockingham that were considered Transportation Disadvantaged on a nationwide level.

There is one census tract in the RPC that is “Transportation Disadvantaged”, tract 1071 in Portsmouth. This census tract faces a high environmental burden, and high social vulnerability (Table 4). Some of the factors that determine environmental burden are, toxic release sites proximity, percent of housing stock built before 1980 and impaired surface water. Factors that determine social vulnerability include, percent of population aged 65 and older, limited English proficiency, housing cost burden, and unemployment rate. The RPC as a region, however, scores above the 65th percentile in transportation insecurity, indicating that the region faces transportation insecurity. Tract 1071 is not considered transportation insecure.

Table 4: USDOT Transportation Disadvantaged Index Summary, RPC

Census Tract	Climate & Disaster Risk Burden	Environmental Burden	Health Vulnerability	Social Vulnerability	Transportation Insecurity
Tract 1071	58	89	40	73	56
Average for RPC	22	47	25	23	75

⁷ **Transportation Insecurity** – occurs when people are unable to get to where they need to go to meet the needs of their daily life regularly, reliably, and safely.

Environmental Burden – includes variables measuring factors such as pollution, hazardous facility exposure, water pollution, and the built environment.

Social Vulnerability – a measure of employment, educational attainment, poverty, housing tenure, access to broadband, and housing cost burden.

Health Vulnerability – assesses the increased frequency of health conditions that may result from exposure to air, noise, and water pollution, as well as lifestyle factors such as poor walkability, car dependency, and long commute times.

Climate and Disaster Risk Burden – reflects sea level rise, changes in precipitation, extreme weather, and heat which pose risks to the transportation system.

For more information, please visit the USDOT Equitable Transportation Community (ETC) Explorer – Understanding the Data - <https://experience.arcgis.com/experience/0920984aa80a4362b8778d779b090723/page/Understanding-the-Data/>

Hot Spot Maps

During the 5-year period, there were 525 total crashes (2%) that occurred in a Transportation Disadvantaged census tract in the RPC. Of those 525 crashes, 68 (13%) resulted in a fatal, serious, or minor injury. **Error! Reference source not found.** shows the “hot spots” where there are relatively large concentrations of fatal, serious, and minor injury crashes (in orange) and “cold spots” (in blue) where lower relative concentrations exist. Census tracts that are considered “Transportation Disadvantaged” are shaded gray in **Error! Reference source not found.**. The highest concentrations of fatal, serious, and minor injury crashes during the 5-year period were in Portsmouth and Salem. Other areas of high concentration were in Seabrook, Epping, Greenland, Plaistow, and Hampton.

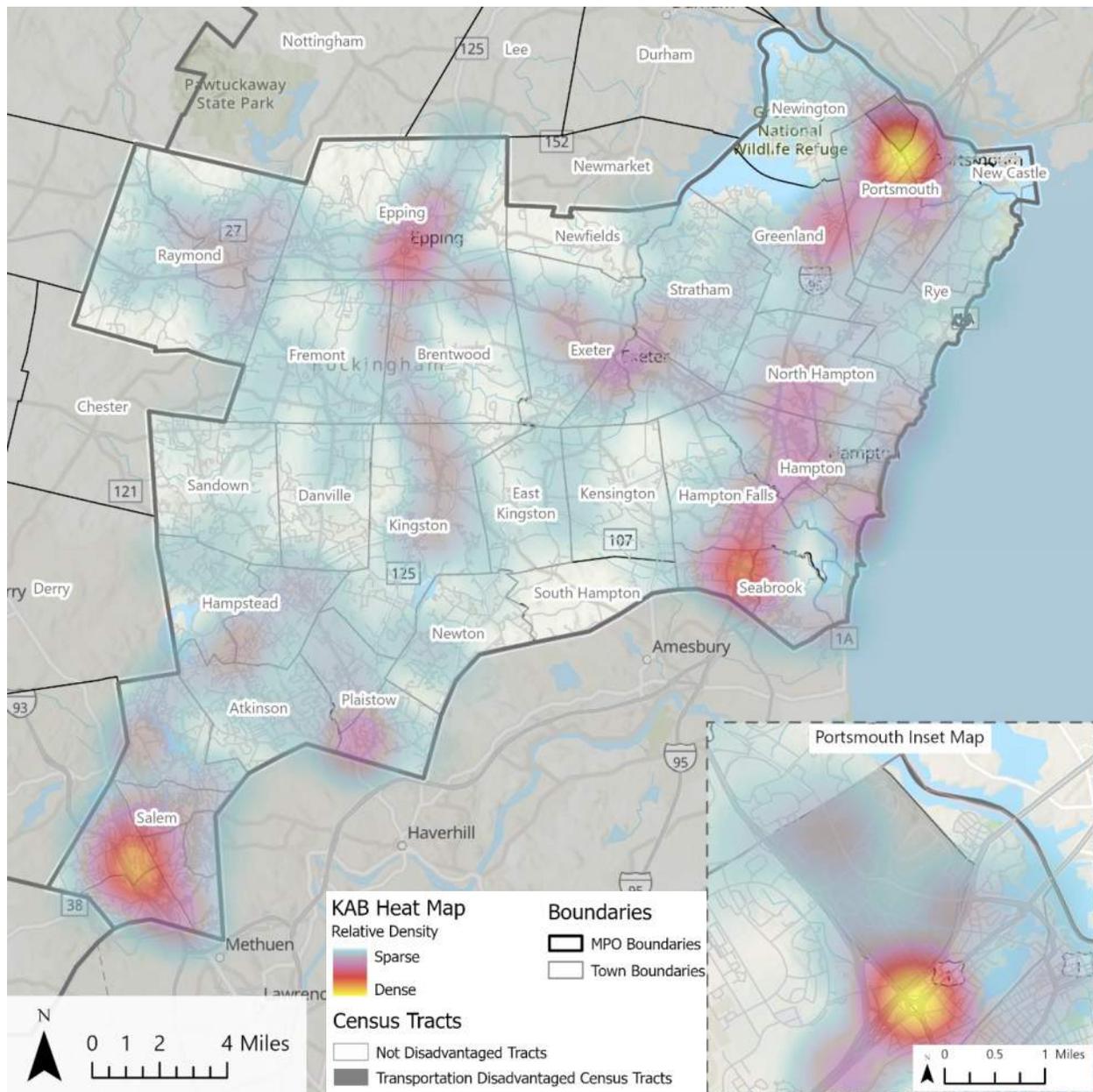


Figure 19: Fatal, Serious, and Minor Injury Hot Spots

High Injury Network

The following map shows the High Injury Network (HIN) corridors for the RPC region. The High Injury Network analysis identifies a small subset of roads in the RPC where a high proportion of fatal, serious, and minor injury crashes occur. The analysis identifies which road each fatal, serious, or minor injury crash occurred on, and attributes each crash to a specific segment of roadway if it is within 100 feet of the roadway. Crashes with geographic (XY) coordinates that are greater than 100 feet from a road, and crashes occurring on limited access highways (ex: interstates) were excluded from this analysis. Crashes on limited access roads were excluded to focus improvement recommendations on roads which are maintained by local governments. Each roadway segment must be at least a half mile in length and have at least six fatal, serious, or minor severity crashes to qualify for the analysis. Crashes are multiplied by the crash cost values shown in table 5 and divided by the length of the roadway segment. Segments are then ranked from 1 to 50 based on the highest to lowest crash cost scores.

Table 5: Crash Costs for New Hampshire (Source: Crash Costs for Highway Safety Analysis, FHWA)

Crash Severity	Crash Cost
Fatal or Serious Injury	\$1,328,148
Minor Injury	\$111,200

The HIN accounts for 35% of eligible crashes, and only 7% of the road network.

There were a total of 2,322 fatal, serious, and minor injury crashes over the 5-year period in the RPC region. On the 50 corridors included in analysis, there were 811 fatal, serious, and minor injury crashes. In total, the High Injury Network makes up only 7% of the road network in the RPC region. The 47 miles of Principal Arterial roads (such as NH 101, 125, 111, etc.) on the HIN make up 70% of all Principal Arterial roads in RPC. The 38 miles of Minor Arterial (such as Ocean Boulevard, Market Street, NH 33) make up 46% of all Minor Arterial roads. Combined, Principal Arterial and Minor Arterials are the road class for 66% of HIN crashes. The rows in Table 6: HIN Summary by Road Classification are organized by road classification hierarchy, where Interstates typically carry high volumes of traffic at high speeds, and local roads typically carry lower volumes at the lowest speeds.

Table 6: HIN Summary by Road Classification

Road Classifications	Total Eligible Crashes	Total Miles	HIN Crashes	% HIN Crashes	HIN Miles	% HIN Miles
Interstate ⁸	210	64	0	0%	0	0%
Principal Arterial - Other Freeways and Expressways	251	79	0	0%	0	0%
Principal Arterial - Other	428	68	385	40%	47	31%
Minor Arterial	398	82	234	37%	38	44%
Major Collector	391	206	127	15%	29	22%
Local	535	1,199	59	8%	14	4%
No Functional System ⁹	75	245	0	0%	0	0%
Grand Total	2,322	1,975	811	100%	129	100%

The ETC explorer indicates that there is only one census tract in Rockingham Planning Commission that is Transportation Disadvantaged. shows that three High Injury Network (HIN) corridors run through census tract 1071. Safety Countermeasure improvement prioritization should be given to census tracts that are disadvantaged.

⁸ Note that many roads classified as Interstate were excluded from this analysis since they are considered limited access highways.

⁹ Roads with no functional classification either lack classification identifying data or are private roadways.

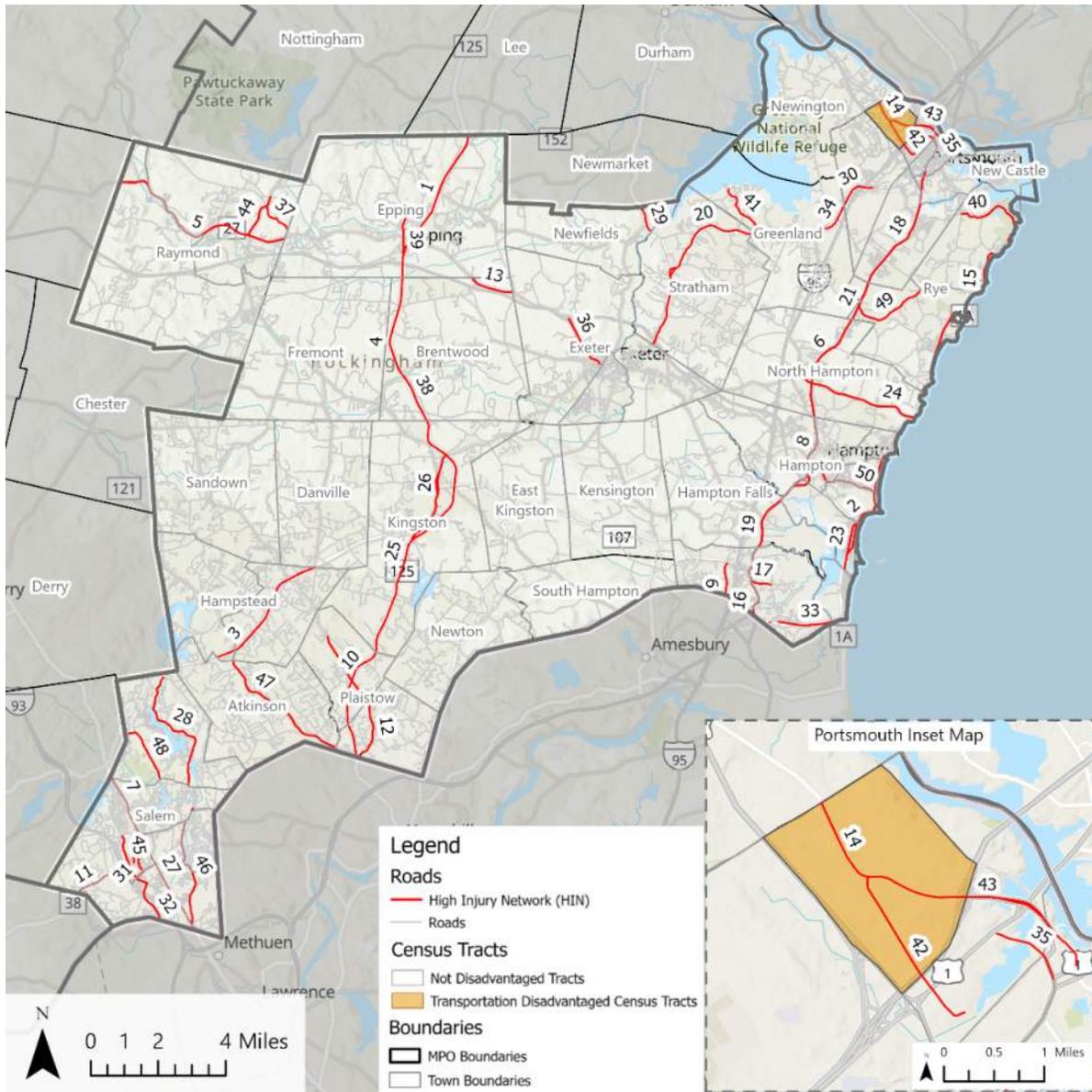


Figure 20: High Injury Network and Disadvantaged Census Tracts

Census Data Overrepresentation Analysis

Additional analysis compared Transportation Disadvantaged census tracts with census tracts for key underserved populations. These census tracts show areas where there are higher populations than the rest of the RPC region for the following demographic groups:

- Black, Indigenous, and People of Color (BIPOC) populations
- Persons with a disability
- Persons aged 65 and older
- Persons in poverty
- Zero vehicle households
- Households with limited English proficiency

This analysis identifies overrepresented populations on a region wide scale, helping to provide the basis for certain safety countermeasure recommendations. For example, areas where poverty rates are higher would benefit from countermeasures that emphasize safety for alternative, less expensive modes of transportation like transit, walking, and bicycling. Areas with Limited English Proficiency should provide educational materials and conduct transportation safety outreach in languages other than English. Census tracts with high rates of disabled persons should conduct public outreach to identify the needs of the community and employ appropriate safety countermeasures.

BIPOC Populations

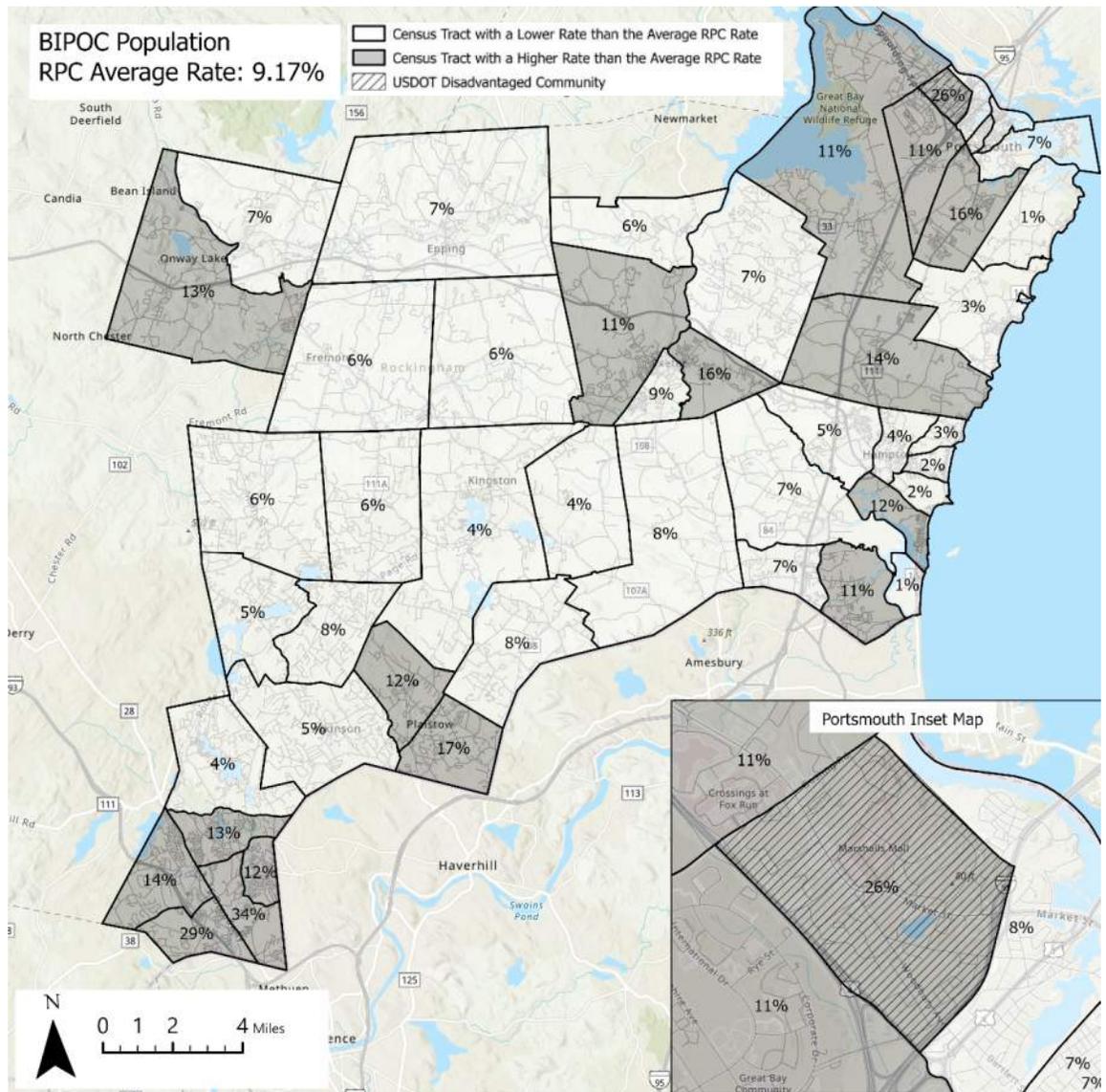


Figure 21: BIPOC Populations by Census Tract

The region wide average for people who identify as Black, Indigenous, or a person of color is approximately 9%. There are several census tracts throughout the region where BIPOC account for 25% to 33% of the census tract population. Approximately 29% of people in tract 1003.02 and 34% of people in tract 1004.01 (both in Salem) identify as Black, Indigenous, or a person of color. Approximately 26% of people in tract 1071 (Portsmouth), which is a Transportation Disadvantaged tract, identify as Black, Indigenous, or a person of color.

Persons Aged 65 and Older

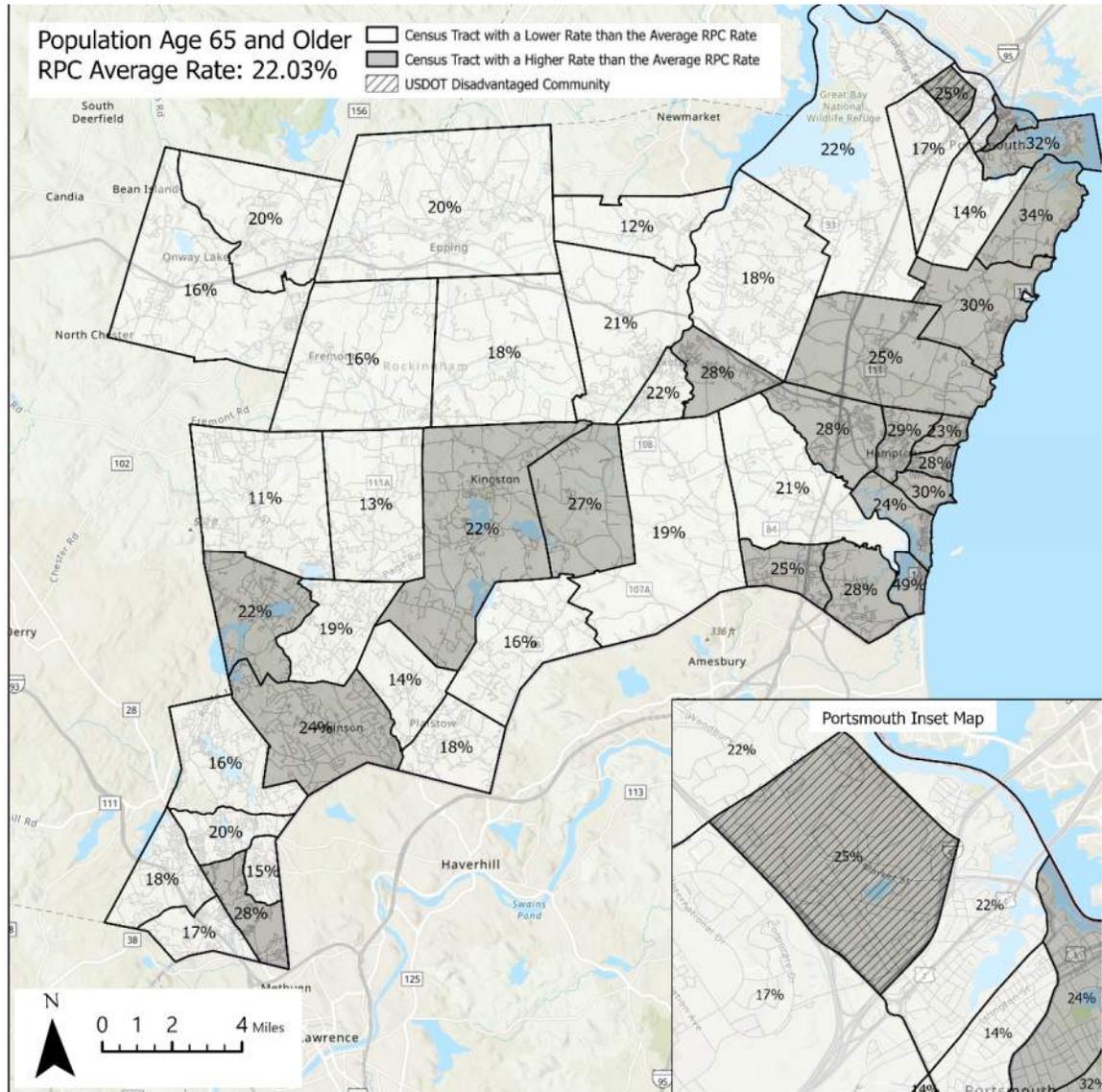


Figure 24: Persons Aged 65 and Older by Census Tract

Approximately 22% of people are aged 65 and older in the Rockingham Planning Commission region. Tract 630.04 in Seabrook has the highest percent of residents aged 65 and older. Many of the census tracts with higher rates of people aged 65 and older are on coastal census tracts. As we age, we can become more susceptible to injury, reaction time can become slower, and safe driving abilities can be reduced. It’s important to note that, while everyone ages, aging does not affect everyone’s abilities in the same ways. When considering safety improvement countermeasures, RPC may offer older driver education programs and consider how the needs of older drivers differ from other driver groups in the region.

Figure 25 shows all crashes involving an older driver, that resulted in a fatal, serious, or minor injury. These crashes are overlaid on census tracts with a higher-than-average rate of residents who are aged 65 or older (as also shown in Figure 24). Census tract labels are not shown to

prioritize the clarity of the crash data. Approximately 40% of older driver crashes resulting in a fatal, serious, or minor injury occurred in a shaded census tract, compared to 39% of fatal, serious, and minor injury crashes involving all age groups.

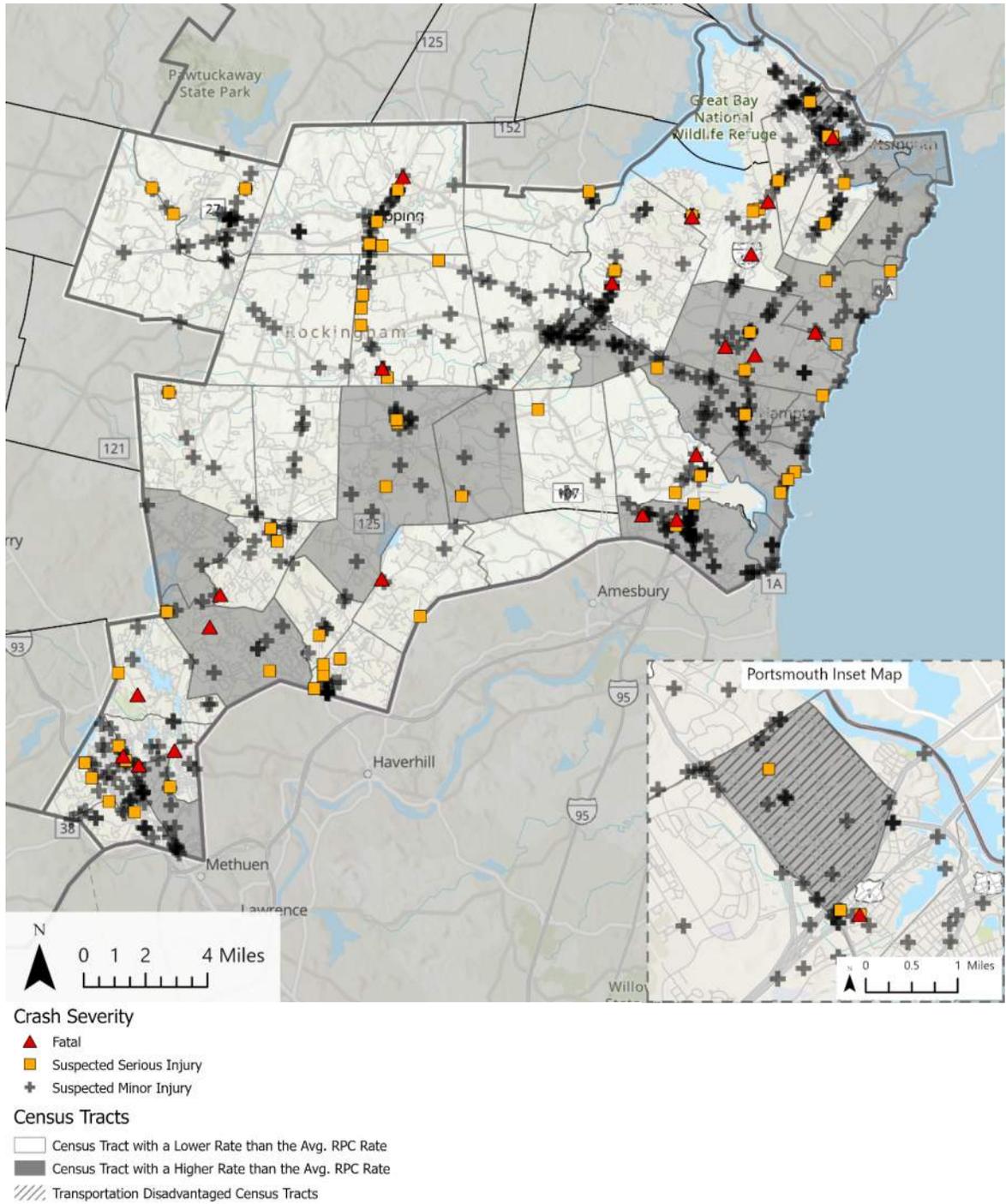


Figure 25: Older Driver Crashes Overlaid on Tracts with a Higher-than-Average Rate of Persons Aged 65 or Older, RPC

Persons in Poverty

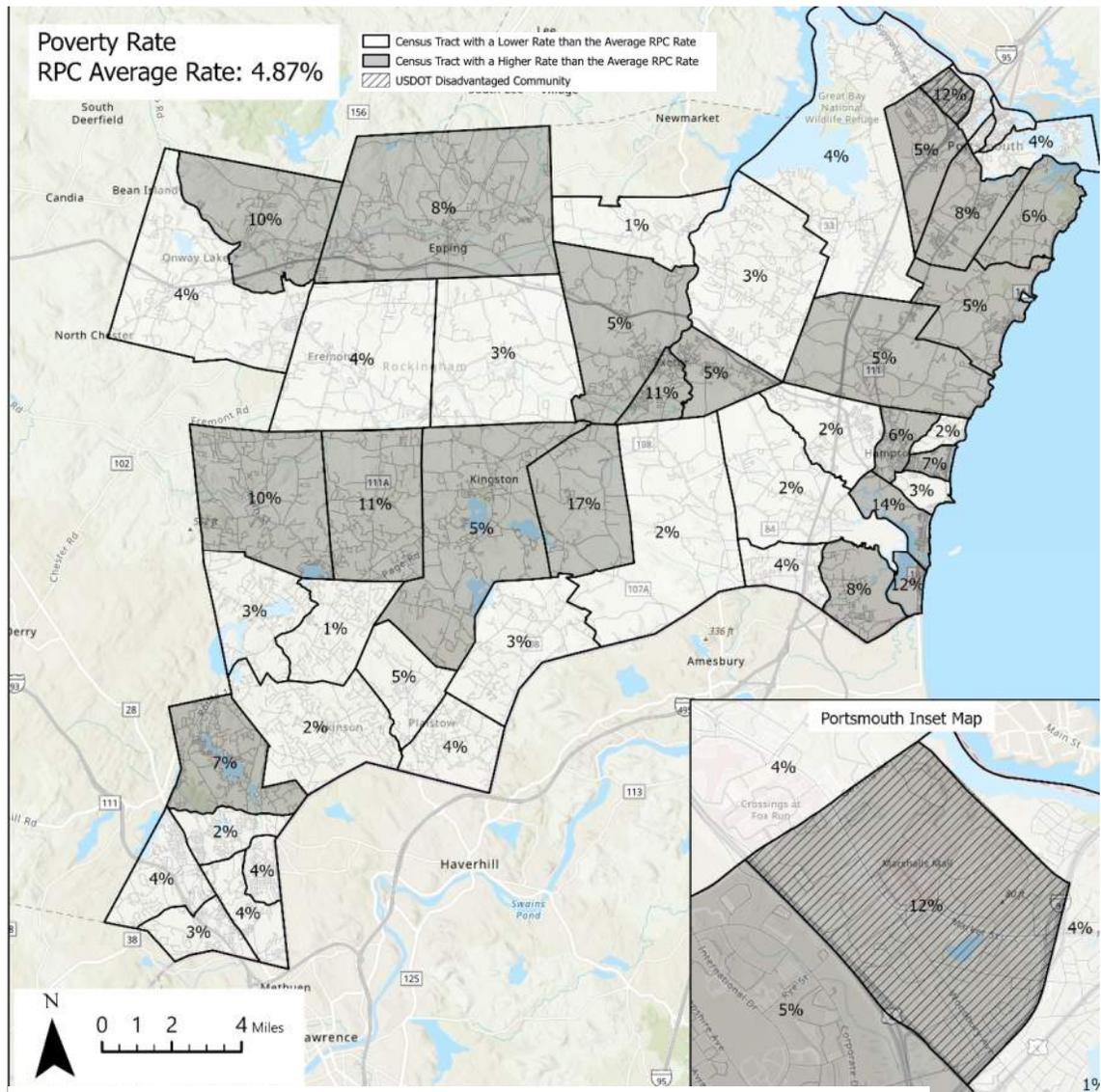


Figure 26: Persons in Poverty by Census Tract

The region wide poverty rate is approximately 5%. The four census tracts with the highest poverty rates are tract 620 (17%, East Kingston), tract 650.08 (14%, Hampton), and tracts 1071 (12%, Portsmouth) and 630.04 (12%, Hampton). Countermeasure recommendations in census tracts with higher rates of poverty should be selected with the consideration that households in poverty are more likely to use transportation modes other than cars for some or all of their trips. Countermeasures should emphasize providing safety for pedestrians, bicyclists, and transit users.

During the 5-year period, approximately 47% of all fatal, serious, and minor injury crashes occurred in census tracts where the poverty rate was higher than the RPC region average – in comparison, 45% of possible injury and property damage only crashes occurred in these census tracts, indicating a slight overrepresentation of higher injury outcomes. Approximately 46% of bicycle and pedestrian crashes with a fatal, serious, or minor injury also occurred in census tracts where the poverty rate was higher than the RPC region average.

Zero Vehicle Households

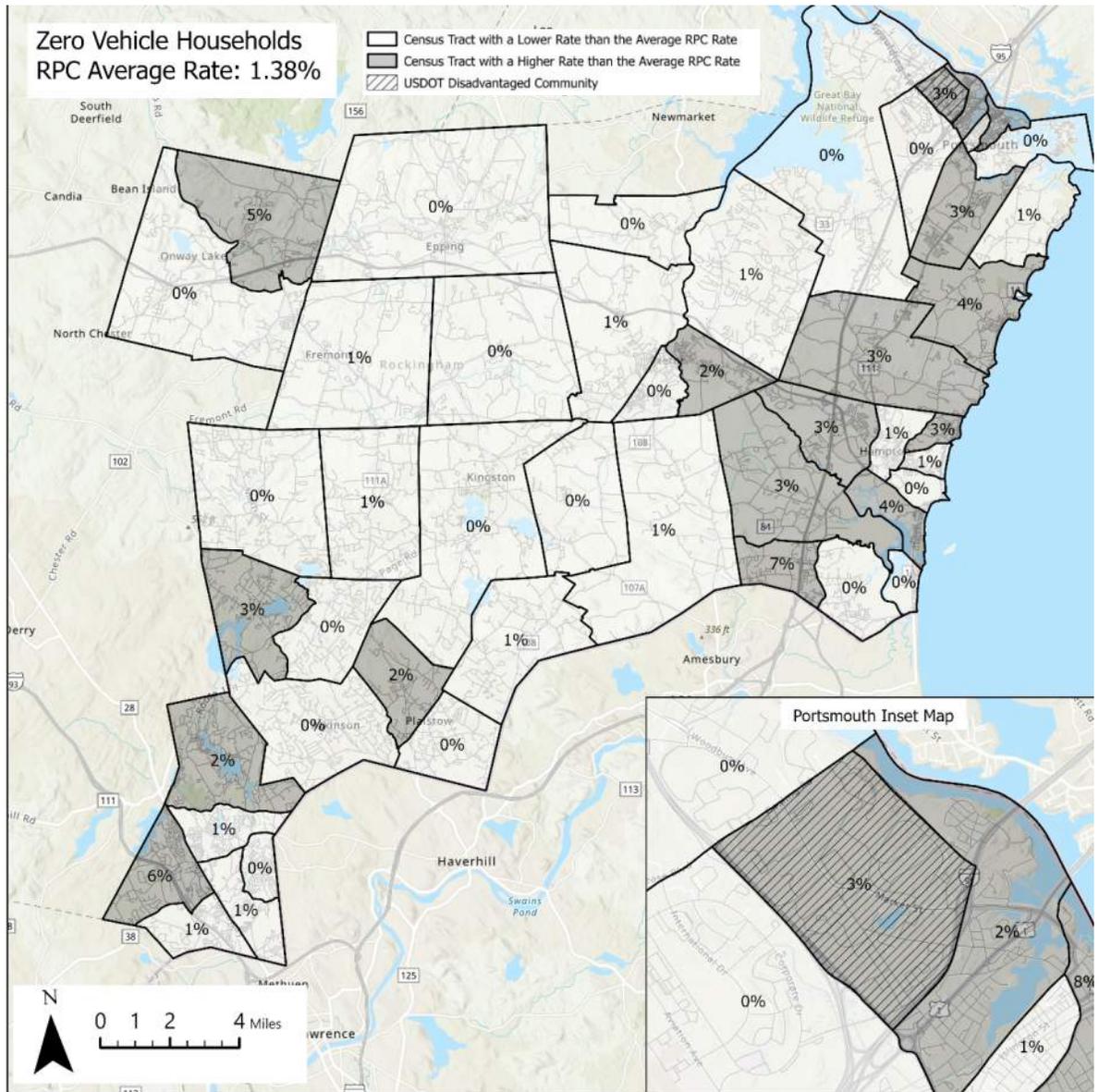


Figure 27: Zero Vehicle Households by Census Tract

Zero vehicle households are households that do not have access to at least one vehicle. The rate of zero vehicle households in RPC is approximately 1%. The rate of zero vehicle households is highest in tracts 630.01 (7%, Seabrook), 1003.01 (6%, Salem), and 550.02 (5%, Raymond). During the 5-year period, approximately 35% of all crashes occurred in a census tract where a higher-than-average amount of households do not have access to at least one vehicle. Bicycle and

pedestrian crashes resulting in a fatal, serious, or minor injury were slightly overrepresented in these census tracts, accounting for 36% of such crashes (Figure 28).

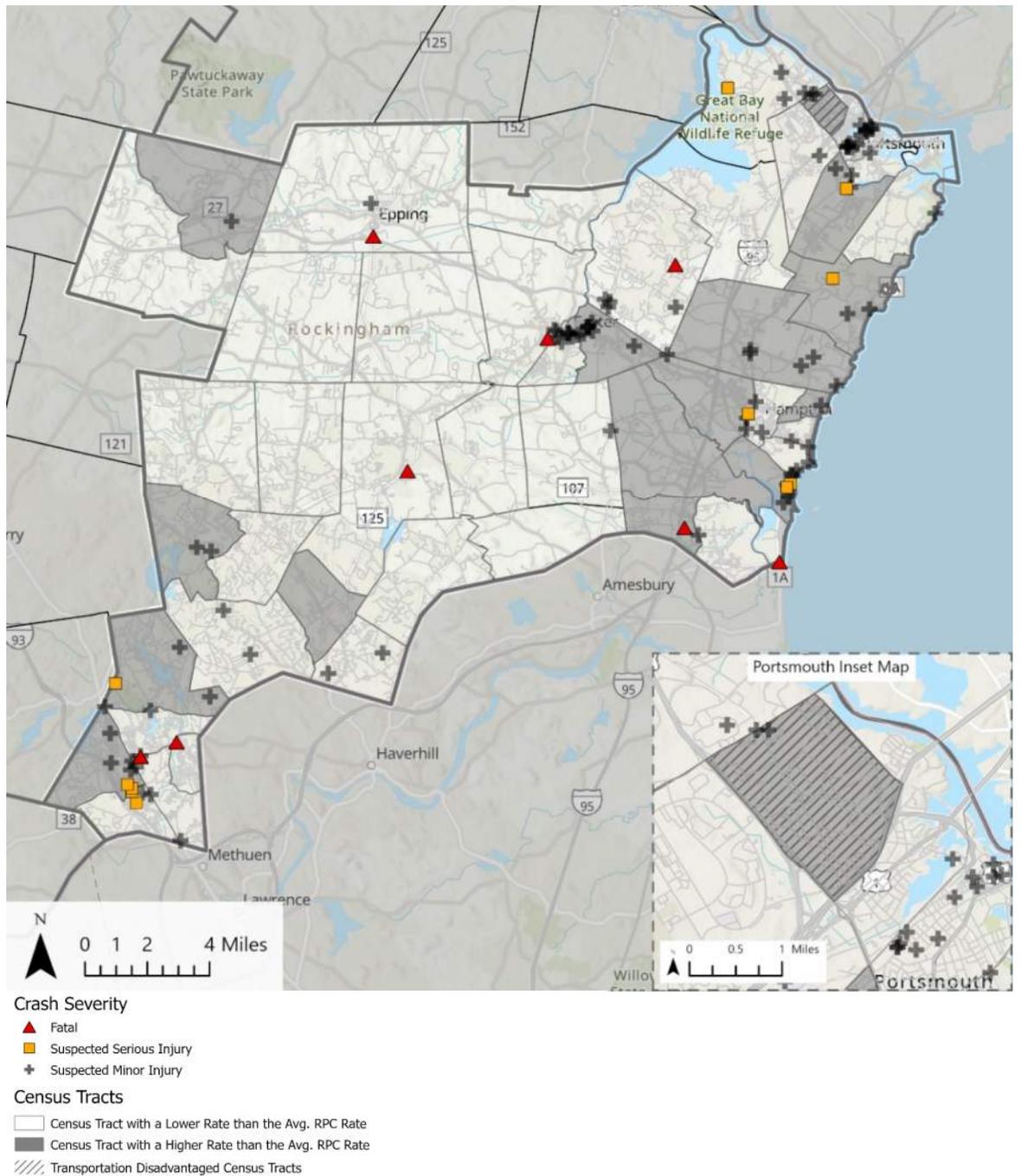


Figure 28: Bicycle and Pedestrian Crashes Overlaid on Higher-than-Average Rate of Zero Vehicle Households, RPC

Prioritization of Safety Countermeasure Improvements

Installing safety countermeasures on every road in the RPC is cost prohibitive. Thus, this chapter prioritizes road classifications and emphasis area crash types, that analysis has shown contribute to the greatest share of fatal, serious, and minor injury crashes.

Prioritization by Road Classification

The following section provides safety countermeasure recommendations that are prioritized by road classification, in the following order:

1. Arterial roads (principal and minor)
2. Collector roads
3. Local roads

Roadway classifications are prioritized based on how frequently that classification was found on the High Injury Network (HIN). During the 2018-2022 period, 40% (385) of fatal, serious, and minor injury crashes that occurred on the HIN were on Principal Arterial roads, and 37% (234) were on Minor Arterial roads. Approximately 15% occurred on Collector roads, and 8% occurred on Local roads. Limited access roads -- which include interstates, freeways, and expressways -- were excluded from the high injury network analysis and are excluded from this prioritization. The order in which the road classifications are presented also follows road hierarchy principles -- arterial roads typically carry the highest volume of traffic and provide access to commercial activity centers while being disconnected from dwellings. Collector roads and local roads each carry lower traffic volumes, and are less connected to commercial activity, and provide more direct access to neighborhoods.

Each road classification is presented with two example corridors from the HIN that are representative of corridors with the same classification. Examples of infrastructure focused countermeasure recommendations are then provided. These countermeasure recommendations are not exhaustive. Please see section Strategy Tables for a complete list of actions that may be taken to reduce fatal, serious, and minor injuries.

Arterial Roads

Street Name:	HIN Rank	City	From Street	To Street
Calef Highway	1	Epping	Brentwood Border	Lee Hill Road

Road Classification: Principal Arterial

Context: Low Density Commercial

Countermeasure Recommendations:

- Road diet
- Center/edge line rumble strips
- Systemic stop-controlled improvements
- Lane narrowing/striping edge lines
- Speed feedback signs
- Access management

Street Name:	HIN Rank	City	From Street	To Street
Calef Highway	1	Epping	Brentwood Border	Lee Hill Road

Road Classification: Minor Arterial

Context: Two-lane undivided to four-lane divided scenic commercial, recreational, and residential street with high pedestrian traffic.

Countermeasure Recommendations:

- Lane narrowing/striping edge lines
- Speed feedback signs
- Rectangular Rapid Flashing Beacons (RRFBs)
- Pedestrian Hybrid Beacons (PHBs)
- Bicycle lanes
- Crosswalk visibility enhancements
- Road diets
- Improve lighting along roadways
- Install/repair sidewalks where necessary

Street Name:	HIN Rank	City	From Street	To Street
Route 111	3	Hampstead		

Road Classification: Principal Arterial

Context: Rural/Two-Lane Arterial

Countermeasure Recommendations:

- Center/edge line rumble strips
- Enhanced delineation for horizontal curves
- Clear zone management
- Systemic stop-controlled improvements
- Lane narrowing/striping edge lines
- Speed feedback signs

Collector Roads

Street Name:	HIN Rank	City	From Street	To Street
Route 27	5	Raymond	Dudley Road	Prescott Road

Road Classification: Collector Road

Context: Regional collector ranging from two lane rural design with shoulders to two lane small town commercial activity.

Countermeasure Recommendations:

- Enhanced delineation for horizontal curves
- Center/edge line rumble strips
- Clear zone maintenance
- Improve lighting along roadways
- Speed feedback signs
- Transverse rumble strips where speeds drop in towns

Street Name:	HIN Rank	City	From Street	To Street
Route 286	33	Seabrook	Washington Street	Ocean Boulevard

Road Classification: Two Lane Collector Road

Context: Low-density residential connector with passing zones

Countermeasure Recommendations:

- Center/edge line rumble strips
- Clear zone maintenance
- Systemic stop-controlled improvements
- Lane narrowing/striping edge lines
- Speed feedback signs
- Access management

Street Name:	HIN Rank	City	From Street	To Street
Atlantic Ave	24	North Hampton	Hobbs Road	Ocean Boulevard

Road Classification: Two Lane Collector Road

Context: Suburban Residential

Countermeasure Recommendations:

- Enhanced delineation for horizontal curves
- Clear zone management
- Systemic stop-controlled improvements
- Improve lighting along roadways
- Speed feedback signs
- Center/edge line rumble strips

Local Roads

Street Name:	HIN Rank	City	From Street	To Street
Batchelder	9	Seabrook	Dexter Drive	Route 107

Road Classification: Local Road

Context: Low density industrial, medium density residential

Countermeasure Recommendations:

- Center/edge line rumble strips
- Clear zone management
- Systemic stop-controlled improvements
- Lane narrowing/striping edge lines
- Speed Feedback Signs
- Widen paved shoulders
- Enhanced delineation for horizontal curves

Street Name:	HIN Rank	City	From Street	To Street
Railroad Ave	17	Seabrook	Lafayette Road	Centennial Street

Road Classification: Local Road

Context: Low density residential

Countermeasure Recommendations:

- Appropriate speed limits for all users
- Improve lighting along roadways
- Enhanced delineation for horizontal curves
- Clear zone management
- Speed feedback signs
- Centerline/edge line rumble strips

Prioritization by Emphasis Area

The following section prioritizes safety countermeasure recommendations based on emphasis area involvement. The chosen emphasis areas were overrepresented in fatal, serious, and minor injury outcomes. Prioritization based on road classification versus emphasis area involvement can be seen as two sides of a coin. While prioritizing roads based on road classification is a proactive systemic approach which focuses on entire corridors, analyzing crash outcomes for emphasis area involvement is more of a reactive approach. Prioritizing safety countermeasures which address emphasis areas which are overrepresented in fatal, serious, and minor injuries will result in the greatest reductions in more severe injury outcomes.



Roadway departure



Speeding and aggressive driving



Occupant protection (seat belt usage)



Impaired driving



Vulnerable motorized users (motorcycles and mopeds)



Vulnerable non-motorized users (pedestrians and bicyclists)

Countermeasure	Context	Emphasis Area Addressed
Enhanced delineation for horizontal curves	All contexts	 
Improve lighting along roadways	All contexts	  
Transverse rumble strips	Suburban, rural	 
Centerline and edge line rumble strips	Suburban, rural	
Clear zone management	Suburban, rural	
Appropriate speed limits for all users	All contexts	 
Road diets	All contexts	   
Speed feedback signs	All contexts	 
Widen/pave shoulders	Suburban, rural	
Install Safety EdgeSM treatment	Suburban, rural	
High Friction Surface Treatment	Suburban, rural	  
Speed humps/tables	Urban, suburban, low speed rural	

Countermeasure	Context	Emphasis Area Addressed
Adopt an adult seat belt law	All contexts	
Promote seat belt education campaigns	All contexts	
Adopt a motorcycle helmet law	All contexts	
Conduct high visibility enforcement	All contexts	  
Medians and Pedestrian Refuge Islands	Urban, suburban	
Leading Pedestrian Interval	Urban, suburban, rural	
Rectangular Rapid Flashing Beacons (RRFBs)	Urban, suburban	
Crosswalk Visibility Enhancements	Urban, suburban, rural	
Bike Lanes	Urban, suburban	

Strategy Tables

Emphasis Area: Intersections

Emphasis Area Objective: Reduce the frequency and severity of intersection crashes.

Success Metric: Reduce the number of intersection crashes by **XX** percent by **20XX**.



Table 7: Intersections

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 1.1: Systemic application of low-cost countermeasures at intersections										
1.1.1	Reduce left-turn conflicts by reconfiguring intersections with roundabouts, restricted crossing U-turns (RCUT), or median U-turns (MUT).	Cities and Local Agencies, NHDOT	Number of sites	All areas	Urban, Suburban	Safer Roads	HSIP, Federal Discretionary, Municipalities	CMF: 0.8	High	Medium
1.1.2	Improve intersection signage and lighting to improve intersection visibility.	Cities and Local Agencies, NHDOT	Number of sites	All areas	All areas	Safer Roads	NHDOT District, Municipalities	CMF: 0.881 (nighttime)	High	Medium
1.1.3	Add left-turn, right-turn, or center turn lanes at intersections where speeds are too high to turn safely to or from a roadway.	Cities and Local Agencies, NHDOT	Number of sites	All areas	All areas	Safer Roads	Federal Discretionary, Municipalities	CMF varies	Medium	Medium
1.1.4	Convert intersections at town gateways to roundabouts to slow speeds.	Cities and Local Agencies, NHDOT	Number of sites	All areas	All areas	Safer Roads	Federal Discretionary, Municipalities	CMF: 0.473	High	Long
1.1.5	Separate left turn lanes and implement protected left turn signal phases.	Cities and Local Agencies, NHDOT	Number of sites	All areas	All areas	Safer Roads	NHDOT District, Municipalities	CMF: 0.78	High	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
1.1.6	Implement systemic application of multiple low-cost countermeasures at stop-controlled intersections.	Cities and Local Agencies, NHDOT	Number of sites	All areas	All areas	Safer Roads	NHDOT District, Municipalities	CMF varies	High	Short
1.1.7	Install transverse rumble strips in advance of intersections. Ensure proper outreach has been conducted and coordinate with NHDOT where required.	Cities and Local Agencies, NHDOT	Number of sites	All areas	Rural	Safer Roads	NHDOT District, Municipalities	CMF: 0.903 (rural)	Low	Medium
1.1.8	Prohibit Right-Turn-On-Red and install accompanying signage at locations with high volume pedestrian conflicts.	Cities and Local Agencies, NHDOT	Number of sites	All areas	Urban, Suburban	Safer Roads	NHDOT District, Municipalities	CMF varies	Medium	Short
Strategy 1.2: Improve data collection and analysis practices that relate to intersection safety.										
1.2.1	Perform roadway safety audits on priority intersections or corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Counties, Cities and Local Agencies, NHDOT	Locations analyzed	All areas	All areas	Safe Speeds, Safe Roads, Safe Road Users, Safe Vehicles, Post Crash Care	HSIP, Federal Discretionary, Municipalities	N/A	High	Medium
1.2.2	Develop a process to inventory intersection data including traffic volumes, roadway attributes, and traffic asset data for use in traffic safety evaluations.	Counties, Local and State Police, Cities and Local Agencies	Locations analyzed	N/A	All areas	Safe Speeds, Safe Roads, Safe Road Users, Safe Vehicles, Post Crash Care	HSIP, NHDOT Bureau of Traffic	N/A	Low	Long
Strategy 1.3: Enhance enforcement activity to address intersection safety.										
1.3.1	Conduct highly publicized and visible enforcement of priority intersections.	State Police, Local Police	Number of hours	All road types	All areas	Safer Road Users	Municipal or State Police	N/A	Medium	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 1.4: Educate drivers on how to navigate new forms of traffic control (e.g., flashing yellow arrow, roundabouts) and train designers and planners on best practices.										
1.4.1	Partner with agencies to develop and market material (e.g., videos, flyers, online material, Public Service Announcements [PSAs]) through various channels, such as social media, town websites, newsletters, email, and chamber of commerce meetings.	Counties, Cities and Local Agencies	Number of clicks	All areas	All areas	Safer Road Users	HSIP, Municipal or State Police, Nonprofit Advocacy Groups	N/A	High	Short
1.4.2	Conduct training with road designers and planners on best practices to address intersection safety.	Counties, Cities and Local Agencies	Number of trainings	All areas	All areas	Safer Road Users	FHWA Technical Assistance	N/A	High	Short
1.4.3	Install signage at high-pedestrian volume locations where Right-Turns-on-Red are permissive alerting drivers to watch for pedestrians.	Cities and Local Agencies, NHDOT	Number of locations	All areas	Urban, Suburban	Safer Road Users	NHDOT District, Municipalities	N/A	High	Short

Emphasis Area: Roadway Departure

Emphasis Area Objective: Reduce the frequency and severity of roadway departure crashes.

Success Metric: Reduce the number of roadway departure crashes by XX percent by 20XX.



Table 8: Roadway Departure

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 2.1 Implement engineering countermeasures to reduce roadway departure crashes.										
2.1.1	Install centerline, shoulder, or edge line rumble strips. Ensure appropriate outreach has been conducted.	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	HSIP, Municipalities	CMF: 0.8 (rural)	Medium	Short
2.1.2	Widen and/or pave shoulders in areas where there is a specific safety need to provide drivers with a recovery area and to increase physical space between drivers and people walking & biking in the shoulder.	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	HSIP, Municipalities	CMF dependent on shoulder width	Medium	Long
2.1.3	Install Safety EdgeSM when resurfacing roadways.	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	HSIP, Municipalities	Not in CMF Clearinghouse	High	Long
2.1.4	Pre-treat road surface and improve road clearance during snow events.	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	Not in CMF Clearinghouse	High	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
2.1.5	Install or widen retroreflective pavement markings on center lines and edge lines.	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT Bureau of Traffic, Municipalities	CMF: 0.877 (rural)	High	Short
2.1.6	Provide enhanced curve delineation, such as chevrons and pavement markings in accordance with MUTCD criteria.	Cities and Local Agencies, NHDOT	Number of corridors	Curves on Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.725 (non-intersection)	Medium	Short
2.1.7	Use High Friction Surface Treatment (HFST) to increase traction through sharp curves prioritizing according to crash rate.	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.529	Medium	Long
2.1.8	Improve lighting along roadways.	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.68	Medium	Medium
2.1.9	Install median barriers along high-speed corridors with a history of front-to-front collisions	Cities and Local Agencies, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.57 (fatal crashes)	Medium	Medium
Strategy 2.2 Implement countermeasures and strategies that reduce the frequency or severity of work zone crashes.										
2.2.1	Ensure installation of proper sign package, pavement markings, and flagger operations per the Manual on Uniform Traffic Control Devices (MUTCD).	Cities and Local Agencies, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	Not in CMF Clearinghouse	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
2.2.2	Promote safety training efforts/programs for work zone personnel and Traffic Incident Management (TIM) responders.	Cities and Local Agencies, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads, Safe Road Users	NHDOT Safety Section, Municipalities, Trade Associations	N/A	Low	Medium
2.2.3	Implement variable speed limits at work zones.	Cities and Local Agencies, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	NHDOT Bureau of Traffic, Municipalities	CMF: 0.92 (urban); 0.684 (rural)	High	Short
2.2.4	Implement temporary pavement markings and pavement conditions during construction.	Cities and Local Agencies, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	Include in Project Scope of Work Where Applicable.	N/A	Medium	Short
2.2.5	Temporary transverse rumble strips.	Cities and Local Agencies, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	Include in Project Scope of Work Where Applicable.	CMF: 0.66 (urban and suburban)	High	Short

Strategy 2.3: Implement educational efforts to address roadway departure safety.

2.3.1	Education involving driving responsibly during winter weather on website/PSAs.	Cities and Local Agencies, Local and State Police	Number of hours	All areas	All areas	Safe Road Users	HSIP, Municipal or State Police, Nonprofit Advocacy Groups	N/A	Low	Ongoing
2.3.2	Use traffic simulator at education events.	Cities and Local Agencies	Number of events	All areas	All areas	Safe Road Users	Municipal or State Police	N/A	Low	Ongoing

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
2.3.4	Educate drivers about vehicle mechanical failures by promoting vehicle maintenance and upholding annual safety inspections	Cities and Local Agencies, Local and State Police	Number of hours	All areas	All areas	Safe Road Users, Safe Vehicles	NH DMV	N/A	Low	Ongoing
2.3.5	Conduct training on roadway departure crash engineering mitigation approaches.	Cities and Local Agencies, Local and State Police	Number of hours	All areas	All areas	Safe Road Users	FHWA Technical Assistance	N/A	Low	Short
Strategy 2.4: Enhance enforcement activity to address roadway departure safety.										
2.4.1	Increase the number of hours of impaired and speed-related driving enforcement.	State and Local Police	Number of hours	All road types	Rural, Suburban	Safer Road Users	Municipal or State Police	★★★★	High	Ongoing
2.4.2	Increase enforcement of excessive driving speed with an emphasis on winter weather driving.	State and Local Police	Number of hours	All areas	Rural, Suburban	Safer Road Users	Municipal or State Police	★★★★	High	Ongoing
Strategy 2.5: Improve data collection and analysis practices that relate to roadway departure safety.										
2.5.1	Train staff and others on data collection and analysis techniques to improve the quality of information available to explain the reasons for and results of crashes	Cities and Local Agencies, Local and State Police	Number of hours	All areas	All areas	Safer Road Users	FHWA, NHDOT, Regional and Municipal Agencies	N/A	Low	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
2.5.2	Continue to share data with safety partners to inform knowledge of prevailing issues, including UTVs/ATVs.	Cities and Local Agencies, Local and State Police	Number of partnerships	All areas	All areas	Safer Road Users, Safe Vehicles	FHWA, NHDOT, Regional and Municipal Agencies	N/A	High	Ongoing
2.5.3	Perform roadway safety audits on priority corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Cities and Local Agencies	Number of RSAs	All areas	All areas	Safe Speeds, Safe Roads, Safe Road Users, Safe Vehicles, Post Crash Care	HSIP	N/A	High	Medium

Emphasis Area: Distracted Driving

Emphasis Area Objective: Reduce the frequency and severity of distracted driving crashes.

Success Metric: Reduce the number of distract driving crashes by **XX** percent by **20XX**.



Table 9: Distracted Driving

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 3.1: Implement educational efforts to address distracted driving.										
3.1.1	Develop and implement a Distracted Driving Action Plan to advocate for attentive driving.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS	N/A	Medium	Long
3.1.2	Encourage awareness programs addressing distracted driving. Conduct at least one annual public service announcement by OHS about distracted driving. Reach out to schools to encourage youth to be advocates for attentive driving. Involve the Injury Prevention Center to find ways to involve and partner with schools. Conduct an annual AAA campaign with PSAs that focus on impairment and distraction. Work with the public information officer at the OHS to develop specific messages for different demographics.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	Medium	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
3.1.3	Create a coalition against distracted driving. The coalition's goal will be to support legislation, and further education efforts. Identify additional members for the distracted driving task force. Identify additional types of organizations/agencies for inclusion on the task force. Conduct at least six meetings annually for the distracted driving task force. Involve more community organizations.	Counties, County Police, Cities and Local Agencies	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	High	Medium

Strategy 3.2: Enhance enforcement activity to address distracted driving.

3.2.1	Target periods of enforcement with local/State collaboration (e.g., AM and PM times).	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHDOS OHS, Municipal or State Police	★★★★	High	Ongoing
3.2.2	Work with legislature and courts to maintain or strengthen distracted driving legislation through education and advocacy. Place topic on Traffic Safety Commission agenda annually. Continue to advocate for maintaining current law. Review current penalties related to hands-free law and identify potential adjustments.	Counties, County Police, Cities and Local Agencies	Number of hours	All areas	All areas	Safe Road Users	NHDOS OHS, Municipal or State Police	N/A	High	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
3.2.3	Identify opportunities involving vehicle-to-infrastructure technology which help to provide drivers information on current status of surrounding infrastructure. Advocate for continued improvement in-vehicle electronics and safety systems to reduce the distraction they may present to the driver.	Counties, Cities and Local Agencies	Number of partnerships	All areas	All areas	Safe Vehicles	This seems to be a national-level issue.	N/A	Low	Long
Strategy 3.3: Improve data collection and analysis practices that relate to distracted driving.										
3.3.1	Work with law enforcement agencies to develop procedures to better identify any role played by driver distraction and consistently record that information on crash reports, regardless of whether that distraction is a citable offense	State, County, and Local Police	Changes to data collection processes	All areas	All areas	Safe Road Users	NHDMV, Municipal or State Police	N/A	High	Medium
3.3.2	Research tools for law enforcement to determine if a motorist was using an electronic device.	State, County, and Local Police	List of potential tools and selection of preferred tool.	All areas	All areas	Safe Road Users	Municipal or State Police	N/A	High	Medium

Emphasis Area: Impaired Driving

Emphasis Area Objective: Reduce the frequency and severity of impaired driving crashes.

Success Metric: Reduce the number of impaired driving crashes by **XX** percent by **20XX**.



Table 10: Impaired Driving

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 4.1: Implement educational efforts to address impaired driving.										
4.1.1	Conduct Advanced Roadside Impaired Driving Enforcement (ARIDE) training to train law enforcement officers to observe, identify, and articulate the signs of impairment.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS	N/A	Medium	Long
4.1.2	Consult with Drug Recognition Experts on best practices to address impaired driving.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police	N/A	Low	Long
4.1.3	Conduct STOP DWI Program to coordinate local efforts that address impaired driving.	State, County, and Local Police	Number of program events	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police	N/A	Medium	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
4.1.4	Encourage collaboration between local, county, and State police to proactively address the dangers of impaired driving. Engage community-based organizations to reach at-risk populations starting with one community and expand to additional communities. Identify top-five at-risk communities in the State and focus activities at these locations.	State, County, and Local Police	Number of CBOs engaged	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	High	Medium
4.1.5	Promote programs that educate the public about the risk and consequences of impaired driving. Post on the OHS' social media sites for the annual Drive Sober or Get Pulled Over Campaign. Host press conferences for the public for the Drive Sober or Get Pulled Over Campaign. Create flyers summarizing risks of impaired driving and distribute to DMV locations and high schools.	State, County, and Local Police, Local Agencies	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	Low	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 4.2: Enhance enforcement activity to address impaired driving.										
4.2.1	Conduct Publicized sobriety checkpoints. Note that the police must follow a protocol that includes judicial authorization for the checkpoint and an advance public notice. Work with Police Departments to explore the possibility of distributing personal breathalyzers to higher-risk groups.	State, County, and Local Police	Number of locations	All areas	All areas	Safe Speeds, Safe Roads, Safe Road Users, Safe Vehicles, Post Crash Care	NHTSA, NHDOS OHS, Municipal or State Police	★★★★★	High	Short
4.2.2	Conduct High visibility saturation patrols. Coordinate across local jurisdictions.	State, County, and Local Police	Number of events	All areas	All areas	Safe Road Users	Municipal or State Police	★★★★	High	Short
4.2.3	Incorporate additional field sobriety testing, breathalyzer training, and DRE training into both the part-time and full-time police academies. Identify opportunities to incorporate breathalyzer and DRE training.	State, County, and Local Police	Number of trainings	All areas	All areas	Safe Road Users	NHDOS OHS	N/A	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
4.2.4	Continue targeted patrols and implement all-hours patrols using drug recognition experts (DREs). Engage community-based organizations to reach at-risk populations starting with one community and expand to additional communities. Identify top-five at-risk communities in the State and focus activities at these locations.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	Municipal or State Police	N/A	High	Short
4.2.5	Develop and promote public health initiatives in collaboration with law enforcement and healthcare providers to provide free or reduced-cost breathalyzers and rideshare or transit vouchers to individuals with substance use disorders, thereby reducing the incidence of impaired driving in at-risk populations.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	Municipal or State Police, Municipal Funds	N/A	Medium	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 4.3: Improve data collection and analysis practices that relate to impaired driving.										
4.3.1	Perform roadway safety audits on priority corridors to further identify roadway features as well as drinking establishment locations that combined with impaired driving that contribute to severe crashes and select the appropriate countermeasures.	Cities and Local Agencies	Number of RSAs	All areas	All areas	Safe Speeds, Safe Roads, Safe Road Users, Safe Vehicles, Post Crash Care	HSIP	N/A	High	Medium
4.3.2	Improve collection and use of impaired driving data for effective enforcement. Produce annual mapping that illustrates crash and citation locations related to Impaired Driving incidents.	Cities and Local Agencies, State and Local Police		All areas	All areas	Safer Road Users	NHDOS OHS, NHDOT Safety Section	N/A	High	Medium

Emphasis Area: Speed and Aggressive Driving

Emphasis Area Objective: Reduce the frequency and severity of speed and aggressive driving crashes.

Success Metric: Reduce the number of speed and aggressive driving crashes by XX percent by 20XX.



Table 11: Speed and Aggressive Driving

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 5.1: Implement engineering countermeasures to reduce speeding and speed-related crashes and implement roadway designs that are self-enforcing.										
5.1.1	Set appropriate speed limits based on the use of appropriate engineering practices.	Cities and Local Agencies	Number of roads	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT Bureau of Traffic, Municipalities	N/A	High	Medium
5.1.2	Expand the use of context-specific advisory speed signs to advise motorists where traveling at the posted speed is ill-advised.	Cities and Local Agencies	Number of locations	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT Bureau of Traffic, Municipalities	CMF: 0.87	High	Short
5.1.3	Introduce variable speed limits for high temporal speeding events.	Cities and Local Agencies	Number of sites	During morning and evening commutes on major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT Bureau of Traffic, Municipalities	CMF: 0.71 (urban)	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
5.1.4	Increase the use of Radar Speed Feedback Signs to notify drivers of their speeds.	Cities and Local Agencies	Number of sites	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds, Safe Road Users	NHDOT Bureau of Traffic, Municipalities	CMF: 0.95 (rural)	High	Short
5.1.5	Reduce lane widths through re-striping to encourage slower speeds.	Cities and Local Agencies	Number of sites	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT District, Municipalities	CMF dependent on width reduction	High	Short
5.1.6	Install transverse rumble strips to encourage lower speeds. Conduct appropriate outreach in advance of installation.	Cities and Local Agencies	Number of sites	All roads	All areas	Safe Roads, Safe Speeds	HSIP, Municipalities	CMF: 0.66 (urban and suburban)	Low	Medium
5.1.7	Install traffic calming countermeasures that provide vertical deflection (e.g., speed humps or raised crosswalks) and horizontal deflection (e.g., chicanes, center islands, or traffic circles) to lower speeds on local roadways.	Cities and Local Agencies	Number of sites	Local roadways	All areas	Safe Roads, Safe Speeds	HSIP, Municipalities	CMF Varies	Low	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 5.2: Implement educational efforts to address speed-related safety.										
5.2.1	Work with Judicial Outreach Liaisons to encourage judicial respect for and support of speeding citations. Develop a handout and presentation for Judicial Outreach Liaisons highlighting dramatic differences in survival rates for vulnerable users when hit by cars traveling at speeds at 20 mph vs. 30 mph vs. 40 mph. Work with Judicial Outreach Liaisons to explore transitioning to an income-based fine system.	Cities and Local Agencies	Number of distributions	All areas	All areas	Safe Road Users, Safe Speeds	Municipalities	N/A	High	Short
5.2.2	Educate the public of the dangers and consequences of speeding. Participate in campaigns like NHTSA's "Obey the Sign or Pay the Fine" and "Stop Speeding Before it Stops You". Illustrate the difference in travel speeds with respect to braking distance and crash survivability.	Cities and Local Agencies, State and Local Police	Number of hours	All areas	All areas	Safe Road Users, Safe Speeds	NHTSA, NHDOS OHS	N/A	Low	Medium
5.2.3	Engage Law Enforcement Liaison in coordinating initiatives that address speeding.	Cities and Local Agencies, State and Local Police	Number of hours	All areas	All areas	Safe Road Users, Safe Speeds	NHDOS OHS	N/A	High	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 5.3: Enhance enforcement activity to address speed-related safety.										
5.3.1	Coordinate with Enforcement Officers to prioritize enforcement of locations with a history of speed-related crashes.	Cities and Local Agencies, State and Local Police	Number of hours	All roads	All areas	Safer Road Users	Municipal or State Police	N/A	High	Short
5.3.2	Use Radar Speed Feedback Signs to notify drivers of reduced speed limits.	Cities and Local Agencies	Number of locations	All roads	All areas	Safe Roads, Safe Speeds, Safe Road Users	NHDOT Bureau of Traffic, Municipalities	CMF: 0.95	High	Short
5.3.3	Advocate for the legalization of automated safety cameras to address speed.	Cities and Local Agencies, State and Local Police	Number of locations	All roads	All areas	Safe Roads, Safe Speeds, Safe Road Users	Municipalities	N/A	High	Medium
Strategy 5.4: Improve data collection and analysis practices that relate to speed-related safety.										
5.4.1	Maintain a database of location of all speeding related tickets and crashes to find speeding corridors.	Cities and Local Agencies, State and Local Police	Conducted or not	All areas	All areas	Safe Speeds	NHDMV, Municipal or State Police	N/A	Medium	Medium
5.4.2	Incorporate the needs of all users when setting speed limits and use data to inform the selection of the speed limit.	Cities and Local Agencies, State and Local Police	Conducted or not	All areas	All areas	Safe Speeds	NHDOT Bureau of Traffic, Municipalities	N/A	High	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
5.4.3	Compile data related to driver speed. Consider publicly sharing using TomTom data.	Cities and Local Agencies, State and Local Police	Conducted or not	All areas	All areas	Safe Speeds	Municipalities	N/A	High	Medium

Emphasis Area: Vehicle Occupant Protection

Emphasis Area Objective: Reduce the frequency and severity of vehicle occupant protection compliance rates.

Success Metric: Reduce the number of crashes that cite a lack of vehicle occupant protection as a contributing factor by XX percent by 20XX.

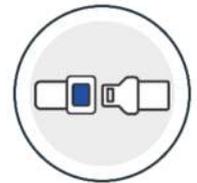


Table 12: Vehicle Occupant Protection

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 6.1: Strengthen seatbelt laws										
6.1.1	Advocate for the adoption of an adult seat belt law and a motorcycle helmet law.	Counties, Cities	Adoption of the law	All areas	All areas	Safer Road Users	Private Entities, Nonprofit Advocacy Groups	N/A	High	Ongoing
Strategy 6.2: Educate residents on seatbelt laws and the importance of using a seatbelt										
6.2.1	Work closely with New Hampshire’s Teen Driving Program to increase teen seat belt usage through education campaigns	Counties, Cities, School Districts	Number of campaigns	All areas	All areas	Safer Road Users	NHTSA, NHDOS OHS, Nonprofit Advocacy Groups	★★★	Low	Long
6.2.2	Support the enforcement of child restraint laws by conducting mobilization efforts.	Counties, County Police, Cities, Local Police	Number of events	All areas	All areas	Safer Road Users	NHDOS OHS, Municipal or State Police	★★★★★	Low	Long
6.2.3	Partner with corporate stakeholders and other available education resources to promote increased occupant protection	Counties, Cities, Major Employers	Number of partnerships	All areas	All areas	Safer Road Users	Private Entities, NHDOS OHS, Municipal or State Police	★★★	Low	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
6.2.4	Provide child restraint educational programs and information to parents, guardians, caregivers, and medical personnel (e.g., the New Hampshire Pediatric Society). Partner with schools and annually send a newsletter detailing education programs. Market through social media infant seat checks available at local police, fire, and EMS stations.	Counties, Cities, School Districts	Number of engagement events	All areas	All areas	Safer Road Users	NHTSA, NHDOS OHS, Nonprofit Advocacy Groups	N/A	Low	Long

Emphasis Area: Older Drivers

Emphasis Area Objective: Reduce the frequency and severity of crashes involving older drivers.

Success Metric: Reduce the number of crashes involving older drivers by **XX** percent by **20XX**.



Table 13: Older Drivers

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 7.1: Implement engineering countermeasures to reduce older road user crashes.										
7.1.1	Implement countermeasures from the FHWA Older Driver Highway Design Manual: Increase size and letter height of roadway signs, width of striping, and use retro-reflective signal back-plates; improved signage and acuity, clarity; senior center signage; advance signage.	Counties, Cities	Number of locations	All areas	All areas	Safer Roads, Safer Road Users	HSIP, Federal Discretionary, Municipalities	CMF varies	High	Short
7.1.2	Train staff on the use of the Older Driver Highway Design Manual reference.	Counties, Cities	Number of trainings	All areas	All areas	Safer Roads, Safer Speeds, Safer Road Users	FHWA Technical Assistance	N/A	High	Long
Strategy 7.2: Implement educational efforts to address older road user safety.										
7.2.1	Implement the CarFit program to promote continued safe driving and mobility among older drivers by focusing attention on safety, comfort, and fit.	Counties, Cities, Bureau of Adult & Aging Services (BAAS)	Locations analyzed	All areas	All areas	Safer Vehicles	NHTSA, NHDOS OHS, Nonprofit Advocacy Groups	N/A	Low	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
7.2.2	Work with the state to create a license renewal policy and a referral system to identify older drivers who should not be driving.	State, Counties, Bureau of Adult & Aging Services (BAAS)	Adoption of policy	All areas	All areas	Safer Road Users	NHDMV	★★	High	Medium
7.2.3	Conduct AARP Smart Driver program to help drivers over 55 refresh their driving skills.	Counties, Cities, Bureau of Adult & Aging Services (BAAS)	Number of programs	All areas	All areas	Safer Road Users	Nonprofit Advocacy Groups	★★★★	Medium	Medium
7.2.4	Conduct Coffee with Cops campaign to build relationships between road users and law enforcement.	Counties, Cities, County Police, Local Police, Bureau of Adult & Aging Services (BAAS)	Number of campaign events	All areas	All areas	Safer Road Users	Municipal or State Police	N/A	Low	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 7.3: Provide alternative means of transportation for older drivers so they do not need to be behind the wheel.										
7.3.1	Work with local agencies, transit and paratransit agencies to provide transportation assistance programs that assist seniors who cannot drive. Expand transit access in underserved communities.	Counties, Cities, Transportation Agencies	Programs offered	All areas	All areas	Safer Vehicles	Transit Agencies, NHDOT, Municipal	N/A	Medium	Medium

Emphasis Area: Teen Traffic Safety

Emphasis Area Objective: Reduce the frequency and severity of crashes involving teen drivers.

Success Metric: Reduce the number of crashes involving teen drivers by XX percent by 20XX.



Table 14: Teen Traffic Safety

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 8.1: Implement engineering countermeasures to reduce crashes involving young drivers.										
8.1.1	Improve lighting and visibility of signage.	Counties, Cities and Local Agencies	Number of lighting fixtures installed		All areas	Safe Roads	HSIP, SS4A	CMF varies	High	Medium
8.1.2	Upgrade appropriate existing signs and pavement markings (e.g., retroreflective signs, reflective strips on signposts, add flashing lights to existing signs).	Counties, Cities and Local Agencies	Number of upgrades		All areas	Safe Roads	HSIP, SS4A	CMF varies	High	Short
Strategy 8.2: Implement educational efforts to address younger road user safety.										
8.2.1	Implement awareness campaign to promote safe driving habits by young drivers, including staying alert, using a seat belt, driving at appropriate speeds, not driving distracted.	Counties, Cities and Local Agencies, County Police, Local Police	Number of	All areas	All areas	Safe Road Users	Municipalities, SS4A	N/A	Medium	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
8.2.2	Increase parental involvement in teen driving and training by maintaining a web-based parent toolbox for educational information and other links to resources. Include an emphasis on driving as a responsibility rather than simply a right.	Counties, Cities and Local Agencies	Number of clicks	All areas	All areas	Safe Road Users	Municipalities , SS4A	★★★	Medium	Short
8.2.3	Target educational outreach to novice teen drivers by continued educational outreach to high schools, peer to peer educational outreach materials, and educational material to include in drivers' education courses on vehicle maintenance and inspection for young drivers. Promote and encourage funding opportunities through State, local, and private entities for driver's education classes to allow greater access for all students. Advocate for defensive driving courses for young drivers.	Counties, Cities and Local Agencies, School Districts	Number of events, number of promotional materials given out	All areas	All areas	Safe Road Users	Municipalities , SS4A	N/A	Medium	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 8.3: Enhance enforcement activity to address younger road user safety.										
8.3.1	"Increase enforcement of driving laws. Advocate for the integration of speed-restriction technology in automobiles.	Counties, Cities and Local Agencies, County Police, Local Police	Number of hours	All areas	All areas	Safer Road Users	NH DMV	N/A	High	Medium
8.3.2	Enforce graduated licensing laws.	Counties, Cities and Local Agencies, County Police, Local Police	Number of hours	All areas	All areas	Safer Road Users	NH DMV	★★	High	Short
Strategy 8.4: Improve data collection and analysis practices that relate to younger road user safety.										
8.4.1	Evaluate age-related crashes to determine contributing factors in crashes involving young drivers.	Counties, Cities and Local Agencies	Adoption of practice	All areas	All areas	Safer Road Users	Municipalities, SS4A	N/A	High	Medium

Emphasis Area: Vulnerable Road Users Motorized: Motorcycles and Mopeds

Emphasis Area Objective: Reduce the frequency and severity of crashes involving motorized vulnerable road users.

Success Metric: Reduce the number of crashes involving motorized vulnerable road users by **XX** percent by **20XX**.



Table 15: Vulnerable Road Users Motorize: Motorcycles and Mopeds

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 9.1: Implement engineering countermeasures to reduce vulnerable user crashes.										
9.1.1	Install signing to make motorists aware of OHRVs in regions where OHRVs are prevalent, and particularly in those regions where they are permitted to operate on public roads. Partner with existing clubs where possible.	Counties, Cities and Local Agencies	Number of signs installed	All roads	Rural, Suburban	Safe Roads, Safe Road Users	HSIP, SS4A, NHDOT District, Municipalities	N/A	High	Short
Strategy 9.2: Implement internal and external educational efforts to address vulnerable user safety.										
9.2.1	Create a pamphlet of what has changed in laws over the last 20 years to be given to drivers when they renew their license. Potentially work with the state DMV to produce this pamphlet.	Counties, Cities and Local Agencies	Number distributed	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	★★	Low	Varies
9.2.2	Focus the messaging and outreach to motorcyclists aged 45 years and older, including rules of the road, impairment issues, and distraction.	Counties, Cities and Local Agencies	Number of hours	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	Medium	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
9.2.3	Encourage and incentivize defensive driving courses for new motorcycle drivers.	Counties, Cities and Local Agencies	Number of attendees	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	★★	Medium	Varies
9.2.4	Renew and refresh campaigns emphasizing benefits of helmet use. Advocate for the adoption of helmet requirement laws.	Counties, Cities and Local Agencies	Number of campaigns	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	High	Medium
9.2.5	Increase use of news media and social media to draw attention to training and safe motorcycle operation.	Counties, Cities and Local Agencies	Number of clicks	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	High	Long

Strategy 9.3: Improve data collection and analysis practices that relate to vulnerable user safety.

9.3.1	Perform roadway safety audits on priority corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Counties, Cities and Local Agencies	Number of RSAs	All areas	All areas	Safe Speeds, Safe Roads, Safe Road Users, Safe Vehicles, Post Crash Care	NHDOT District, Municipalities	N/A	High	Medium
9.3.2	Develop a process to inventory motorcycle and moped data including traffic volumes, roadway attributes, and traffic asset data for use in traffic safety evaluations.	Counties, Cities and Local Agencies	Adoption of new process	All areas	All areas	Safe Roads	NHDOT District, Municipalities	N/A	High	Medium

Emphasis Area: Vulnerable Road Users Non-Motorized: Pedestrians and Bicyclists

Emphasis Area Objective: Reduce the frequency and severity of crashes involving non-motorized vulnerable road users.

Success Metric: Reduce the number of crashes involving non-motorized vulnerable road users by **XX** percent by **20XX**.



Table 16: Vulnerable Road Users Non-Motorized: Pedestrians and Bicyclists

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 10.1: Implement engineering countermeasures to reduce vulnerable user crashes.										
10.1.1	Prioritize pedestrian and trail crossing improvement and installation projects. Improve road geometry (narrow lanes, reduce curb radii, provide refuge islands, bike lanes) and signs, signals, and pavement markings at pedestrian and trail crossing locations. Provide a comprehensive regional network of multi-use trails that is separated from traffic.	Cities and Local Agencies	Number of crossings installed each year	Locations with high pedestrian volumes	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Medium
10.1.2	Improve road geometry (narrow lanes, reduce curb radii, provide refuge islands, bike lanes) to improve pedestrian and bicyclist safety.	Cities and Local Agencies	Number of improvements implemented	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Dependent on improvements
10.1.3	Implement sidewalk, trails, and lighting infrastructure improvements.	Cities and Local Agencies	Number of improvements implemented	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Dependent on improvements

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.1.4	Install pedestrian hybrid beacons.	Cities and Local Agencies	Number of improvements implemented	Pedestrian crossings	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF: 0.883 (urban and suburban)	Medium	Medium
10.1.5	Institutionalize complete streets practices by adopting a complete streets policy and corresponding approach for all federally funded transportation projects.	Cities and Local Agencies	Number of improvements implemented	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Ongoing
10.1.6	Work with local jurisdictions to improve early and frequent coordination with municipal residents and staff to identify needed safety improvements and align them with upcoming Notice of Funding Opportunities.	Cities and Local Agencies	Amount of funding received	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	N/A	Low	Long

Strategy 10.2: Implement internal and external educational efforts to address vulnerable user safety.

10.2.1	Develop consistent pedestrian and bicyclist safety outreach materials such as print materials and messaging for social and other media types as well as schools. Re-establish a dedicated pool of funding for local Safe Routes to School planning efforts that connect neighborhoods to schools.	Cities and Local Agencies	Number of students walking and rolling to school	All areas	All areas	Safe Road Users	Safe Routes to School, Municipalities, Non-Profits	★★	Medium	Short
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Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.2.2	Create age-appropriate safety curriculum (pre-drivers ed), which would include vehicular passenger, pedestrian, and bicycle safety for middle and high-school students.	Cities and Local Agencies	Number of events	All areas	All areas	Safe Road Users	Safe Routes to School, Municipalities, Non-Profits	★★★	Low	Medium
10.2.3	Work with State police and local law enforcement to develop and implement in-service training for officers on bicycle and pedestrian laws and enforcement techniques.	Cities and Local Agencies, and State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	Medium	Medium
10.2.4	Create and disseminate educational materials to promote awareness of bicycles, pedestrians, and e-bikes. Partner with agencies to develop and air PSAs on the rights and responsibilities of non-motorized users and drivers in their interactions, including 3-foot law, 4-foot law, and 5-foot law as dependent on speed. Create education materials on the 3-foot rule, 4-foot rule, and 5-foot rule. Continue outreach to encourage the use of bicycle helmets.	Cities and Local Agencies	Number of hours	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	Low	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.2.5	Expand consideration of vulnerable roadway users' needs in infrastructure design and funding. Continue to provide staff training on current best practices for safe pedestrian and bicycle design in roadway infrastructure projects. Work with engineers and planners to use the LTS concept to design, construct, and maintain roadway infrastructure for vulnerable road users.	Cities and Local Agencies	Number of new considerations	All areas	All areas	Safe Road Users	Municipalities	N/A	High	Medium
Strategy 10.3: Improve data collection and analysis practices that relate to vulnerable user safety.										
10.3.1	Perform roadway safety audits on priority corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Cities and Local Agencies	Number of RSAs	All areas	All areas	Safe Speeds, Safe Roads, Safe Road Users, Safe Vehicles, Post Crash Care	NHDOT District, Municipalities	N/A	High	Medium
10.3.2	Develop a process to inventory pedestrian and bicyclist data including traffic volumes, roadway attributes, and traffic asset data for use in traffic safety evaluations.	Cities and Local Agencies, NHHS, NHDOT	Adoption of new process	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	High	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.3.3	Develop and implement a method (e.g., bicycle level of traffic stress) for using these data as criteria for Improving performance-based planning by incorporating bicycle level of traffic stress to reduce injury and fatality rates for non-motorized users. Provide access to level of traffic stress (LTS) results and access to Strava data and use the combination to close gaps in the network. Connect low LTS streets where Strava indicates that there's demand to do so.	Cities and Local Agencies	Adoption of new process	All areas	All areas	Safe Roads, Safe Road Users, Safe Speeds	NHDOT District, Municipalities	N/A	High	Medium
10.3.4	Use CRP funding to support regional and statewide ped/bike data collection efforts: integrating ped/bike with routine traffic volume counts, equipment purchase, acquisition of cell phone probe data.	Cities and Local Agencies	Number of projects	All areas	All areas	Safe Roads, Safe Road Users, Safe Speeds	Municipalities, CRP	Municipalities, CRP	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.3.5	Increase pedestrian and bicycle safety-focused coordination with State and local agencies on data collection, data sharing, and enforcement. Improve collection, use, and analysis of data needed for pedestrian and bicycle safety and programming. Develop an interagency effort to better document crash injuries among non-motorized road users combining crash reports with hospital patient data.	Cities and Local Agencies, NHDOT, NHDOS	Adoption of new process	All areas	All areas	Safe Road Users, Post-Crash Care	NHDOT District, Municipalities	N/A	High	Medium

Implementation Resources

This Safety Action Plan equips RPC with a solid foundation to initiate safety improvement strategies. Various funding opportunities are available depending on the specific actions planned. The MPO may seek state or federal funding to support additional planning efforts, implement safety infrastructure projects, or enhance multimodal transportation options. By identifying and understanding its safety needs through this plan, the MPO is well-positioned to pursue a range of specialized grant programs.

U.S. Department of Transportation Transit, Safety, and Highway Funds – Pedestrian and Bicycle Funding Opportunities

This detailed table includes potential eligibility for pedestrian and bicycle activities and projects under U.S. DOT surface transportation and funding programs.

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.pdf?u=092922

New Hampshire Highway Safety Improvement Program (HSIP)

This is the core Federal-aid program with the purpose of achieving significant reductions in traffic fatalities and serious injuries. This includes infrastructure-related projects, selected and justified by proven data-driven approaches. The program currently has \$9,000,000 available annually and the Project Selection Process is a data-driven process that consists of three steps starting with an eligibility determination, then prioritization of selected projects, and finally optimization of the prioritized list of eligible projects within the annual budget. This is done in conjunction with the HSIP committee consisting of NHDOT staff, FHWA staff, MPO, RPC and a Local agency representative.

<https://www.dot.nh.gov/about-nh-dot/divisions-bureaus-districts/highway-design/highway-safety-improvement-program-hsip>

Safe Streets and Roads for All (SS4A) Grant Program

This is a five-year grant program that funds regional, local, and tribal initiatives through grants to prevent roadway deaths and serious injuries. After completing Planning projects applicants can pursue Demonstration and Implementation projects.

<https://www.transportation.gov/grants/SS4A>

Transportation Alternatives Program

The goal of the federally funded Transportation Alternatives Program (TAP) is to provide choices for non-motorized users that are safe, reliable, and convenient. TAP grants often help fund off-road bike and pedestrian

facilities. TAP grants are currently awarded on a four-year cycle, provide up to 80% of project funding and require a local match.

<https://www.dot.nh.gov/projects-plans-and-programs/programs/transportation-alternatives-program>

Active Transportation Infrastructure Investment Program (ATIIP)

The Active Transportation Investment Program (ATIIP) is a new competitive grant program created by Section 11529 of the Bipartisan Infrastructure Law enacted as the Infrastructure Investment and Jobs Act (Pub.L.117-58) to construct projects to provide safe and connected active transportation facilities in active transportation networks or active transportation spines.

FHWA will award Planning and Design grants for eligible applicants to develop plans for active transportation networks and active transportation spines. Projects seeking Planning and Design grants must have planning and design costs of at least \$100,000 to be eligible.

FHWA will award Construction grants to eligible applicants to construct projects to provide safe and connected active transportation facilities in an active transportation network or active transportation spine. Projects seeking Construction grants must have total costs of at least \$15 million to be eligible.

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/

Recreational Trails Program

Recreational Trails Program (RTP) is a competitive grant program that offers funding for quality public trail projects throughout New Hampshire. Limited grants are available for motorized, non-motorized and diversified trails. Eligible projects include maintenance and restoration of existing trails, purchase and lease of trail construction and maintenance equipment, construction of new trails, development and rehabilitation of trailside and trailhead facilities and trail linkages. RTP funds come from the Federal Highway Trust Fund and the program in New Hampshire is administered by the Bureau of Trails under the NH Department of Natural & Cultural Resources.

<https://www.nhstateparks.org/find-parks-trails/find-trails-maps-clubs/grants/recreational-trails-program>

Congestion Mitigation & Air Quality (CMAQ)

CMAQ is a Federal program, administered by the NHDOT Bureau of Planning and Community Assistance, that specifically provides financial assistance for air quality improvement and congestion mitigation projects. Project may include transit investments, and infrastructure improvements that improve traffic flow. They also fund transportation-focused bicycle and pedestrian improvements that will result in a reduction in single-occupant vehicle travel. CMAQ grants are currently awarded on a four-year cycle, provide up to 80% of project funding and require a local match.

<https://www.dot.nh.gov/projects-plans-and-programs/programs/congestion-mitigation-and-air-quality-cmaq-program>

Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program

RAISE is a federally funded grant program that focuses on critical transportation projects, such as roads, rail, transit, and ports, with significant local or regional impacts. It emphasizes improving infrastructure in historically underserved communities, enhancing safety, economic strength, and environmental sustainability. The program is part of President Biden's Bipartisan Infrastructure Law, which has increased funding to address underinvestment in infrastructure and create economic opportunities across the U.S. State and local governments, tribal governments, transit agencies, and port authorities can apply for these grants.

<https://www.transportation.gov/RAISEgrants>

Safe Routes to School

This initiative aims to make it safer and easier for students to walk and bike to school. Established in 2005, it focuses on improving infrastructure, such as sidewalks, crosswalks, and bike lanes, and promoting safety education and community engagement. The program seeks to reduce traffic congestion, enhance student safety, and encourage physical activity, contributing to healthier communities. It involves collaboration between schools, local governments, and community organizations to create a supportive environment for students and families.

https://www.fhwa.dot.gov/environment/safe_routes_to_school/

Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program

The Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program is a federally funded initiative established under the Bipartisan Infrastructure Law. It provides \$100 million annually from 2022 to 2026 to fund demonstration projects that utilize advanced smart community technologies to improve transportation efficiency and safety. The program is divided into two stages: Stage 1 focuses on planning and prototyping, while Stage 2 supports the implementation of successful projects. Eligible public sector agencies, including state and local governments, can apply for these grants to address real-world transportation challenges through innovative technology solutions.

<https://www.transportation.gov/grants/SMART>

Coordination and Evaluation

In addition to securing funding, successfully implementing a safety action plan by an MPO requires close coordination among various stakeholders, including local governments, transit agencies, law enforcement, public health officials, and community organizations, to ensure broad input and backing. Moving the plan from planning to implementation is essential to reduce fatalities and serious injuries in the region. This section provides a process to guide implementation of the plan and evaluate success.

It is crucial to maintain active communication channels through regular meetings, workshops, and updates to align goals and strategies among all parties. Additionally, develop educational programs to inform stakeholders about safety best practices and emphasize the importance of incorporating safety into transportation planning.

Data Collection and Evaluation

Assessment of the plan will encompass both process and outcome evaluations. Process evaluation will entail examining each action in the plan to determine if progress has been achieved. Outcome evaluation will focus on assessing the impact of the activities. For certain projects, such as those specific to particular sites, it is relatively simple to gauge the safety impact by comparing pre-construction and post-construction crash statistics. In other cases, multiple activities may collectively influence changes in crash frequency. For instance, a reduction in impaired driving crashes might result from a combination of educational and enforcement initiatives. Due to the interconnected nature of various safety activities in the region, fatalities and injuries will be used as the benchmark for annual progress in each emphasis area. The RPC will utilize crash data gathered by regional police departments and managed by the NHDOT for outcome evaluations. Additionally, changes in traffic volumes, crash severity, and crash characteristics will offer valuable insights into the effectiveness of safety countermeasures. The RPC will build upon the foundational analysis of the initial plan and enhance it with new data. For evaluating process outcomes, the RPC will collect information on metrics such as activities conducted, projects completed, and people engaged. An annual report summarizing the process and outcomes of the various strategies and actions will be produced, aligning with the annual compilation of crash data.

Public Reporting

The Regional Safety Plan Committee (RSPC) should be established to support the plan's goals and implementation process. This internal committee, comprising members from within the MPO area, can offer valuable advice and assistance for the action items outlined in the safety action plan. If an RSPC cannot be assembled, dedicating a portion of the Transportation Advisory Committee (TAC) meetings to discussing the safety action plan can serve as an effective alternative. This includes reviewing crash statistics, assessing the implementation status of actions, recommending the re-prioritization of safety priorities, and identifying potential funding opportunities to support the implementation of strategies and actions. Additionally, the committee will coordinate with NHDOT to ensure alignment with the State's safety priorities. Feedback from the committee will be incorporated into the annual progress report.

Public Education and Awareness

The RPC will keep the public informed about the plan's implementation via public meetings organized by the RSPC and through regular updates on the plan's website, where the report will also be posted. Periodic messages will be shared on RPC's website and social media channels to remind the public about roadway safety and to announce notable upcoming events or projects. Additionally, RPC may conduct surveys periodically to gauge public awareness of the plan's implementation and to gather feedback on emerging roadway safety issues.

Integration with the Plan

The RPC acknowledges that some strategies in the plan may require several years for full implementation, and the benefits, such as a reduction in fatal and serious injury crashes, may not be immediately apparent. The plan is considered a living document and will undergo continuous review. Similar to the New Hampshire SHSP, a comprehensive update is expected to be completed every five years, or as deemed necessary by the RPC. However, updates to individual strategies and actions may occur more frequently to reflect ongoing progress and any new policies that influence implementation. The RPC will take the lead in updating the plan, with support from various stakeholders. Feedback from public reporting and engagement activities will be integrated into these updates.

Contact

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