2025 SRPC SAFETY ACTION PLAN

STRAFFORD
Regional Planning Commission

Contents

List of Figures

List of Tables

Acknowledgements

This Plan was created by the Strafford Regional Planning Commission (SRPC) 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) planning grant under the FY 2022 grant program[1].

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

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Vision Zero Resolution

WHEREAS the Strafford Regional Planning Commission (SRPC) values the ~~quality of the~~ lives of its residents and visitors; and

WHEREAS everyone should be able to travel safely ~~across~~ on roadways in the region for jobs, recreation, education, and other daily activities; and

WHEREAS traffic crashes cause significant pain and suffering for the community, both economically and socially, evidenced by medical expenses, lost productivity, emotional trauma, and the devastating loss of loved ones; and

WHEREAS no one should lose their life or suffer serious injury while traveling, regardless of their mode of travel, whether they are walking, biking, rolling, driving, or using public transit; and

WHEREAS safe and efficient travel on roadways is crucial to the region's economic development and overall quality of life; and

WHEREAS during the five-year period between 2018 and 2022, there were 1,951 crashes resulting in injuries on roadways in SRPC, including 220 resulting in serious injuries and 65 resulting in death, indicating a significant risk to users; and

WHEREAS crashes resulting in death and severe injuries are preventable through the adoption of a safe system approach, implementation of proven safety countermeasures, targeted enforcement, education campaigns, and consistent road user behavior changes; and

WHEREAS pedestrians and cyclists are disproportionately represented in crashes due to their vulnerability and exposure, often exacerbated by inadequate infrastructure and safety measures; and

Commented [CL1]: This makes it sound like there is a disproportionate number of bike/ped crashes. Maybe reword to just focus on their higher levels of vulnerability and exposure?

WHEREAS the SRPC ~~acknowledges~~ cites safety as a priority in the region in the SRPC Regional Master Plan;[2] and

WHEREAS traditionally underserved sociodemographic populations, including low-income communities and people of color, often face higher risks and barriers to safe mobility, necessitating an equitable approach to roadway safety; and

WHEREAS the SRPC has developed a Safety Action Plan that identifies systemic safety issues and specific actions to improve roadway safety, emphasizing the need for targeted interventions and investments; and

WHEREAS the Safety Action Plan identifies specific funding sources to pursue, such as federal and state grants, many of which require a formal commitment to an eventual goal of zero deaths to qualify for funding; and

2 https://strafford.org/uploads/documents/plans/rpc/regionalplan_localsolutions_2015.pdf

WHEREAS reaching zero deaths requires the support of the entire community, including business owners, residents, students, visitors, and other stakeholders; and

WHEREAS achieving zero deaths also requires buy-in from each individual jurisdiction within the region, including regional and local public agencies, to ensure a coordinated and consistent approach to safety; and

WHEREAS the state's Strategic Highway Safety Plan aims for zero deaths and serious injuries on New Hampshire roadways by 2050, with an interim target of reducing the current annual rate by 50% by 2035; and

WHEREAS the federal transportation strategy advocates for a Safe System Approach and by committing to an eventual goal of zero deaths, the MPO will be aligning with the federal strategy, making systemic and proactive interventions to create safer roadways for all users; and

NOW, THEREFORE, BE IT RESOLVED that the SRPC hereby builds on the September 2022 commitment to the goal of significantly reducing traffic fatalities and serious injuries within the region with ambitious targets set for 2035. These targets include a 75% reduction in fatalities and a 50% decrease in serious injuries. Furthermore, the Commission aims for a complete elimination of fatalities and serious injuries among non-motorized road users. This resolution reflects our commitment to prioritizing safety, advancing equitable mobility, and fostering a collaborative community effort to save lives and enhance the quality of life for all.

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 Strafford Regional Planning Commission (SRPC) 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 SRPC 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

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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 SNHPC 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 and municipalities served by the SRPC. 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 focused on significantly improving transportation safety with ambitious targets set for 2035. These targets include a 75% reduction in fatalities and a 50% decrease in serious injuries. Furthermore, the Commission aims for a complete elimination of fatalities and serious injuries among non-motorized road users. By employing a comprehensive and systematic approach, the SRPC aims to utilize data-driven methods to identify and implement effective countermeasures aimed at reducing crashes in the SRPC region.

Introduction

New Hampshire's Regional Planning Commissions (RPCs) were established by state law in 1969 as advisory bodies, voluntarily formed by member communities. The Strafford Regional Planning Commission (SRPC) serves as one of nine RPCs in the state, providing technical planning assistance, fostering regional collaboration, and conducting research in key areas such as transportation, land use, water resources, housing, economic development, and emergency management. The RPC is governed by a Board of Commissioners, composed of representatives appointed by the Planning Boards and Boards of Selectmen or City Councils of its member communities.

SRPC's planning area includes Barrington, Dover, Farmington, Lee, Madbury, Middleton, Milton, Durham, New Durham, Newmarket, Nottingham, Rochester, Rollinsford, Somersworth, Strafford, Northwood, Brookfield, and Wakefield. The region has a total population of 154,500. All roadways excluding interstates in this region total approximately 1,900 miles. SRPC serves 18 municipalities across Strafford, Rockingham, and Carroll counties.

The Commission is dedicated to enhancing transportation safety with the goal of The Commission is focused on significantly improving transportation safety with ambitious targets set for 2035. These targets include a 75% reduction in fatalities and a 50% decrease in serious injuries. Furthermore, the Commission aims for a complete elimination of fatalities and serious injuries among non-motorized road users.

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 2025-2050 Metropolitan Transportation Plan, The Strafford MPO is dedicated to reducing crashes, improving non-motorized user safety, addressing high-risk locations, and advocating for policy changes, all while collaborating on infrastructure improvements and leveraging technology to work towards zero road fatalities.

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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.

The Strafford Regional Planning Commission is dedicated to eliminating fatalities and serious injuries on the roadway network. However, progress on improving transportation safety in the region has been limited, and people of all ages and abilities continue to be killed and seriously injured in roadway crashes.~~However, people of all ages and abilities from the region have been killed in roadway crashes. Every life matters, and The SRPC 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 14,956. The analysis emphasizes the need for targeted interventions in areas like distracted and impaired driving, intersection safety, and protection for vulnerable road users such as pedestrians, bicyclists, and motorcyclists. The data also highlights the higher crash rates among older and teenage drivers, underlining the importance of tailored safety programs

for these groups. Overall, these findings aim to guide strategic actions to enhance road safety and reduce the frequency and severity of traffic crashes 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 and the elimination of crashes that result in death and serious injuries should be prioritized.
- Humans make mistakes and the transportation system should be designed and operated to accommodate certain types and levels of human mistakes and avoid death and serious injuries when a crash occurs.
- Humans are vulnerable and the transportation system should be designed and operated in a manner that accommodates physical human vulnerabilities.
- Safety is proactive and tools are available to help prevent crashes rather than reacting only when they occur.
- Redundancy is crucial and risk can be reduced by strengthening the system so that when one part fails other parts still protect people.
- Responsibility is shared and all stakeholders are vital to preventing fatalities and serious injuries.

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

- Safe Speeds – promote safer speeds in all roadway environments through context appropriate design, education, and enforcement.
- Safe Roads – design roadways to mitigate human mistakes and encourage safer behaviors.
- Safe People – encourage responsible driving and behavior by people who use the roadways.
- Post-Crash Care – Expedite access to post-crash emergency medical care and ensure a safe working environment for emergency responders.
- Safe Vehicles – Expand availability of vehicle systems and features that help prevent crashes and minimize the impacts of crashes on occupants and non-occupants.

Figure 1. Safe Systems Approach Wheel (FHWA)

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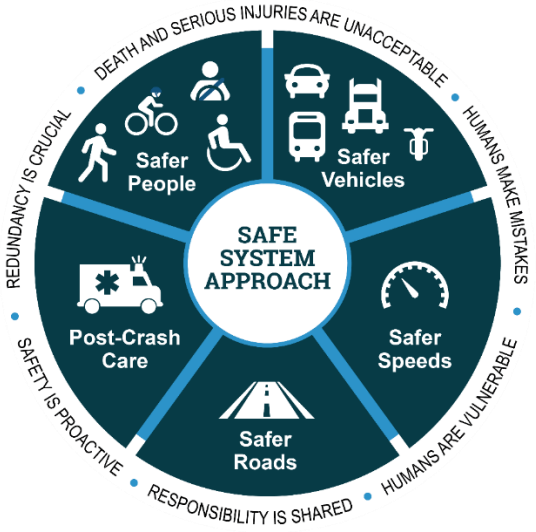
DEATH AND SERIOUS INJURIES ARE UNACCEPTABLE
HUMANS MAKE MISTAKES
HUMANS ARE VULNERABLE
RESPONSIBILITY IS SHARED
SAFETY IS PROACTIVE
REDUNDANCY IS CRUCIAL
SAFE SYSTEM APPROACH
Safer People
Safer Vehicles
Safer Speeds
Safer Roads
Post-Crash Care

~~Equity~~Safety for All

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.

The Justice40 Initiative and ETC Explorer

The now-rescinded Justice40 Initiative was launched by the Biden-Harris Administration in 2021 to confront and rectify decades of underinvestment in disadvantaged communities by channeling resources to those most affected by climate change, pollution, and environmental hazards. To help guide resources to these disadvantaged communities, the Equitable Transportation Community (ETC) Explorer had been developed as part of the Justice40 Initiative to evaluate Census Tracts nationally in the following metrics: Transportation Insecurity, Health Vulnerability, Environmental Burden, Social Vulnerability, and Climate and Disaster Risk Burden. The ETC Explorer was utilized as part of the equity assessment of this Plan to identify the disadvantaged communities within the SNHPC region.

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 was 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, communities facing the highest combined burdens can be identified, thereby enabling more targeted and beneficial funding for projects in those areas.

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SRPC 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 SRPC region has a total population of 154,500 and the total population living in disadvantaged Census Tracts is 15,700 which is about 11%. Transportation Access is ranked in the 71st 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. Impaired Surface Water ranks in the 69th percentile nationally for environmental burden which is relatively high compared to other indicators. An impaired body of water is one that does not meet water quality standards for designated uses, such as fishing or swimming, as set by the state or tribe with jurisdiction over the water. High levels of water pollution can result from a variety of sources, including industry, agriculture, and urban runoff.

Vision, Mission, & Goal

Vision

Our vision represents the collective ideals of our communities. It is the aspirational goal which we seek to achieve, and it shapes what we do. The vision answers the question "what should the Strafford Region be 20-30 years ~~from today~~" and is similar to ones that guide municipal master plans. SRPC's vision was adopted January 2015 as part of SRPC's regional plan, Local Solutions for the Strafford Region.

The Strafford region's transportation network is safe, reliable, and affordable; it connects people to affordable housing, livable-wage jobs, and educational opportunities regardless of their age, income, or where they live. Transportation infrastructure is well-maintained and resilient, frequent fixed-route transit serves a diverse workforce, demand-response transit enables people to lead active lives regardless of age or disability, inter-regional bus and rail links the region to neighboring economies, freight moves efficiently through a variety of modes, town centers are the epicenter for a growing network of pedestrian and bicycle routes.

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 SRPC region.

Mission

SRPC's mission is to ensure that the region is responsive to the needs of its residents through cooperation with the federal and state agencies and its member municipalities, through the implementation of its policies and plans, and through the provision of local planning assistance. These actions foster sustainable development and improve the quality of life in the region. Sustainable development balances economic progress with environmental protection and community well-being.

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 SRPC region roadways is unacceptable.

Goal

SRPC's targets are based on a "vision zero" goal—the only acceptable number of fatalities and serious injuries is zero. The targets are calculated toward achieving specific long-term goals:

- A 75% reduction in fatalities by 2035,
- A 50% reduction in serious injuries by 2035, and
- A 100% reduction in non-motorized fatalities and serious injuries by 2035

Safety Action Plan Approach

SRPC implemented the following FHWA Local Road Safety Plan (LRSP) process to develop the Safety Action Plan. This approach is a FHWA Proven Safety Countermeasure. This process entails the following steps:

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

1. Establish Partners and Process

During this phase of the planning process, the SRPC identified additional stakeholders and voices essential to informing the plan. Leaders in this effort included members of the TAC Committee and focus group members. The leadership team pinpointed further data and topics for research, and they developed a vision statement to articulate the local safety culture and the desired outcomes for the plan.

2. 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.

3. Determine Safety Problems and Emphasis Areas (EAs)

The results of data analysis and community input were summarized to outline specific safety issues and priority locations for further review. Crash types and EAs highlighted patterns and behaviors that can be addressed through a comprehensive approach, incorporating engineering, enforcement, education, and emergency response.

4. Identify Strategies and Projects

Strategies were formulated by linking the EAs, 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~~ Audit (RSA) 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 (HIN). This plan will be used to refine strategies and develop specific projects, timelines, and cost estimates.

5. Implement the Plan

~~The SRPC 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 (SS4A), and other state and federal funding sources. Implementing these projects will require ongoing coordination ~~with partners, including NHDOT, Strafford County, Rockingham County, Carroll County and nearby communities~~between the MPO, NHDOT, and member municipalities.

6. Evaluate and Update the 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)[3], new federal and state funding opportunities, and evolving traffic safety issues and priorities.

[3] 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

Outreach Efforts

~~The Strafford Regional Planning Commission (SRPC) values the input of residents, workers, and community members. Multidisciplinary stakeholder groups convened at various stages of development to guide and review the Safety Action Plan for the region.~~ SRPC used several methods of outreach to involve the public in the development of the Safety Action Plan. In addition to an online survey and interactive input map, SRPC also organized a sequence of meetings with the project's Steering Committee, the MPO Transportation Technical Advisory Committee (TAC), and focus group meetings with key stakeholders. Focus groups for the plan included bicyclists, motorcyclists, and social service professionals who serve people disproportionately impacted by crash injuries and fatalities, such as older adults.

SRPC's 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's Steering Committee, the TAC, and focus group meetings with key stakeholders.

The collective feedback from these meetings guided the project team's development of a series of recommendations aimed at improving local roadway safety. The contributions from the general public, primarily expressed through the online survey, were critical in capturing a detailed understanding of local experiences and priorities. This engagement was especially valuable as it facilitated input from individuals with disabilities, parents of young children, and those lacking access to private motor vehicles. These groups are often underrepresented in public involvement processes, but offer unique perspectives on roadway safety.

Focus Group and TAC Meetings

Focus groups play an essential role in enhancing outreach efforts by offering several key advantages. For this initiative, two online focus-group sessions held on 1/7/25 and 1/8/25 were conducted to gather input from vulnerable road users, including bicyclists and motorcyclists, respectively.

Additionally, in the late summer and fall of 2024, Colin Lentz, ~~Senior~~ Principal Transportation Planner at Strafford Regional Planning Commission (SRPC), conducted outreach calls and meetings for the Safe Streets and Roads for All (SS4A) planning process – primarily with community partners working in public health, law enforcement, and disability rights advocacy. These conversations were also part of SRPC's broader commitment to building long-term relationships with currently and traditionally underserved community members. Overarching themes that emerged from these discussions, regarding transportation safety for people walking, bicycling and using mobility devices:

- Safe transportation is a key social determinant of health. If you live in New Hampshire but can't drive, or have a hard time affording transportation, your options for taking care of basic health and quality of life are very limited.
- Reducing driving speeds at critical locations (such as downtowns and commercial corridors) is critical for reducing crashes that result in fatalities and serious injuries. This is epically true for improving safety for vulnerable road users such as pedestrians and cyclists.
- In addition to safe infrastructure, it is essential to implement and enforce policies and laws regarding aggressive, distracted, and impaired driving. This includes additional support for local law enforcement and the judicial process.

These insights were further enriched by a meeting held with the SRPC Technical Advisory Committee (TAC) on September 8, 2024.

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 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 included 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.

Public Survey

A critical engagement tool used for the Roadway Safety Action Plan included an online survey. The survey featured questions that asked participants to help the project team better understand the public's experiences when walking, driving, bicycling, or using a mobility device within the four Metropolitan Planning Organization (MPO) regions in New Hampshire. The survey was published and advertised on June 7, 2024, and was open until July 16, 2024. The survey gathered just over 1,000 responses.

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 each MPO region where they feel unsafe using specific modes of transportation and ideas where they would like to see safety improvements. Suggestions for potential improvements included road maintenance and condition, pedestrian-friendly infrastructure, expanding bike lanes, addressing traffic congestion, enhancing public transportation, 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 in all MPO regions:

- 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

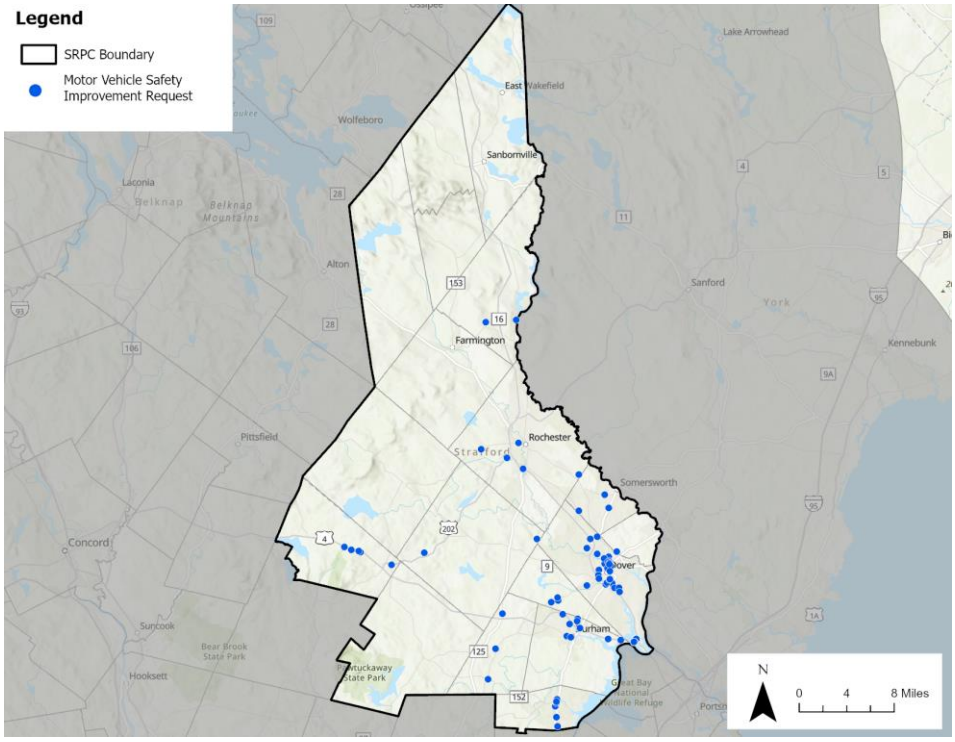

Figure 3: Map of Motor Vehicle Safety Improvement Requests from the Survey

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 suggested 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.

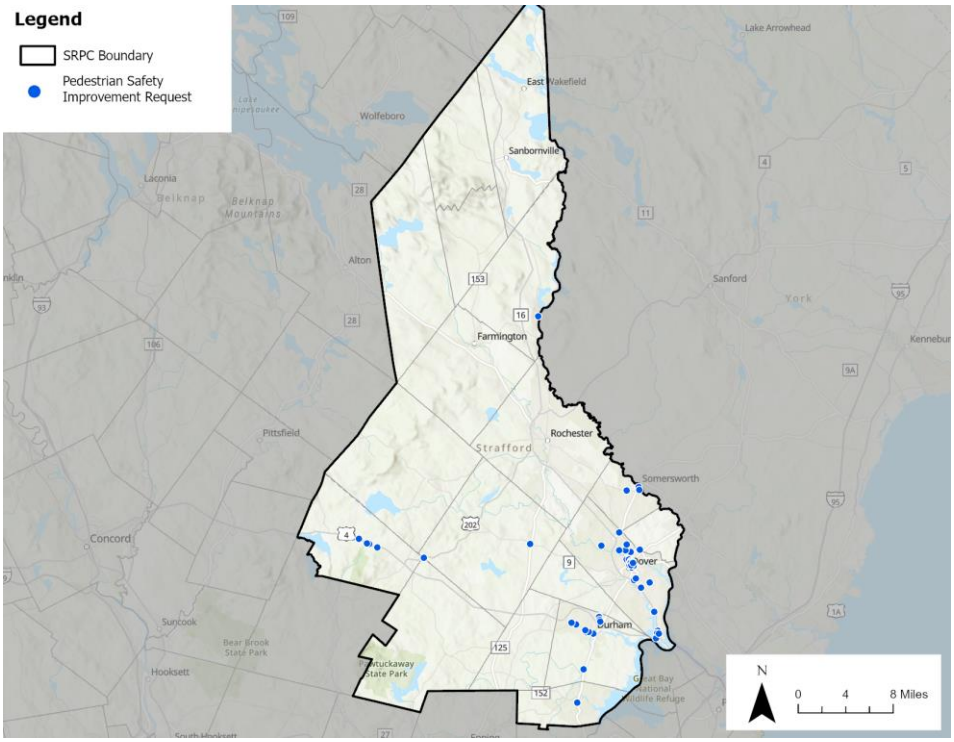

Figure 4: Map of Pedestrian Safety Improvement Requests from the Survey

Some key takeaways from the pedestrian input include:

- **Need for More Crosswalks**: There is a significant demand for additional crosswalks in ~~various~~ multiple 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.

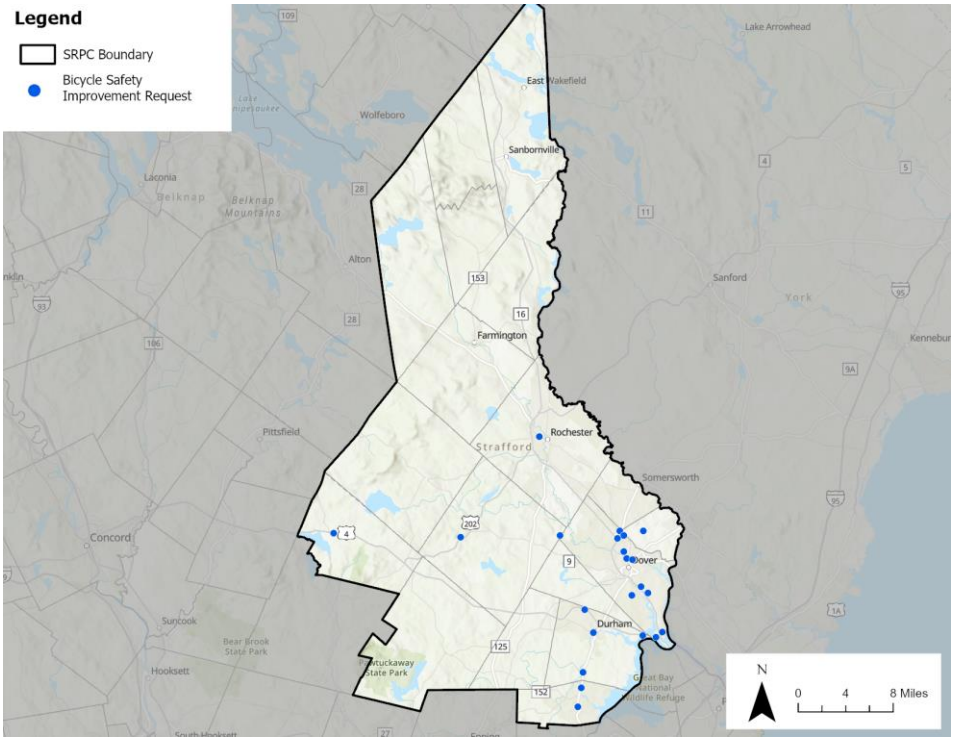

Figure 5: Map of Bicycle Safety Improvement Requests from the Survey

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~~ between ~~cities~~ communities~~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.

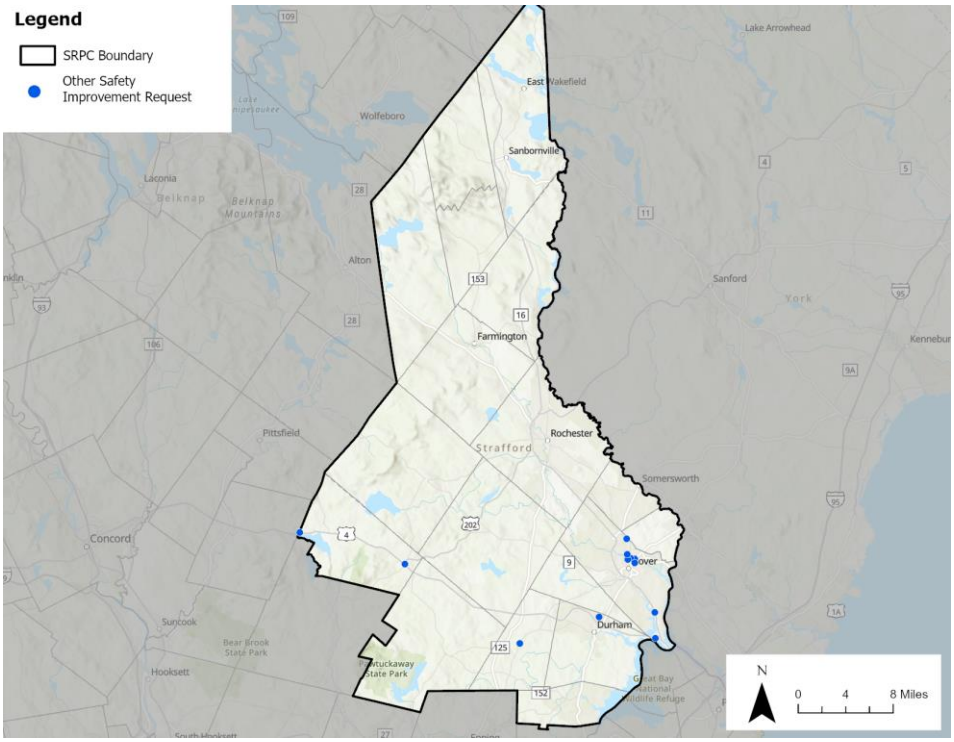

Figure 6: Map of Other Safety Improvement Requests from Survey

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.

Existing Efforts

State Plans

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

The New Hampshire Strategic Highway Safety Plan (SHSP)[4] 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 SRPC 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.

4 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

SHSP Critical Emphasis Areas (CEAs)[5]

 **Intersections:** The junction of two or more roadways.	 **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.
 **Roadway Departure:** Crashes involving drivers drifting out of their lanes into opposing traffic or off the roadway.	 **Older Drivers:** Crashes involving drivers aged 65 and older.
 **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.	 **Teen Traffic Safety:** Crashes involving drivers 18 and under.
 **Impaired Driving:** Driving under the influence of alcohol and/or drugs.	 **Vulnerable Roadway Users (Motorized):** Crashes involving motorcyclists or other motorized vulnerable roadway users (i.e., scooters or Off-Highway Recreational Vehicles [OHRVs]).
 **Speed and Aggressive Driving:** Speeding is driving above speed reasonable and proper for the roadway conditions.	 **Vulnerable Roadway Users (Non-Motorized):** Crashes involving pedestrians (including wheelchair users), bicyclists, and e-bikes.

5 New Hampshire 2022-2026 Strategic Highway Safety Plan

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~~ Improvement Program (HSIP) Implementation Plan

The 2024 New Hampshire Highway Safety Improvement Program (HSIP) Implementation Plan 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 Implementation Plan 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.

Summary of Relevant Local & Regional Plans

20235-205045 Strafford MPO Metropolitan Transportation Plan (MTP)

The 2023-2045 Strafford Metropolitan Planning Organization (MPO) Metropolitan Transportation Plan (MTP) is a comprehensive document developed to guide regional transportation planning and improvements over the next 20 years. It strategically integrates considerations of the environment, natural resources, economics, demographics, land use, infrastructure, and public health into its transportation planning. The MTP lays out formal regional goals and strategies, focusing on enhancing transportation infrastructure and securing related funding for various projects. The plan emphasizes the critical importance of safety across all transportation modes. Key safety takeaways include improving road conditions, implementing traffic calming measures, and upgrading intersections to reduce accident risks. Additionally, there is a strong focus on developing pedestrian and bicycle infrastructure to ensure safer walking and biking environments. Public participation and continuous public involvement play significant roles in shaping the transportation strategies outlined in the MTP, ensuring that the needs and priorities of the community are met. The plan includes provisions for regularly updating safety measures and infrastructural improvements based on evolving data and feedback. Overall, the 20235-205045 MTP aims to create a more efficient, safe, and sustainable transportation network through a robust, data-driven approach and collaborative efforts among regional planning bodies.

2015 Strafford Regional Master Plan

The 2015 Strafford Regional Master Plan serves as a strategic guide for the region's future development, crafted by the Strafford Regional Planning Commission (SRPC) with input from representatives of its 18 municipalities to promote a safe, accessible, multimodal, and resilient transportation system. The transportation sections of the plan focus on improving the existing infrastructure and addressing future transportation needs through a variety of projects and initiatives. Safety is a paramount focus within these sections, emphasizing the need for better road design, maintenance, and traffic management to reduce accidents and enhance overall safety for all users, including pedestrians and cyclists. The identification of high-risk areas and the implementation of traffic calming measures are key strategies highlighted to mitigate traffic-related incidents. The plan also encourages the development of pedestrian and bicycle paths to promote non-motorized travel, ensuring safe, efficient, and healthy transportation alternatives. Engaging public input, the Master Plan aims to reflect community needs and priorities, thus

fostering sustainable growth and improved quality of life within the region. In early 2025, SRPC began a full update to the Regional Master Plan, to be completed in 2026.

2024 Strafford Comprehensive Economic Development Strategy (CEDS)

The 2024 Strafford Comprehensive Economic Development Strategy (CEDS) is the third annual update to the CEDS 2021-2025, focusing on tracking the progress of priority projects and actions aimed at achieving the long-term vision for economic development in the region. The CEDS provides a thorough analysis of the Strafford region's current economic conditions and opportunities, and it sets forth goals, strategies, and investment priorities designed to diversify and strengthen the local economy.

Transportation safety is a key component of this strategy, aligning with broader regional needs and ensuring the seamless integration of infrastructure improvements that support economic growth. The plan underscores the significance of enhancing road safety through better design, maintenance, and traffic management to boost connectivity and ensure safe travel for all road users. A notable aspect of the CEDS is its inclusion of the 2023-2026 TIP Project List, which highlights critical transportation projects that aim to improve regional mobility and accessibility.

The strategic framework of the CEDS emphasizes a balanced approach that incorporates sustainable transportation practices, ensuring that environmental and public health considerations are integral to the planning process. Through continuous public involvement and stakeholder engagement, the CEDS ensures that the community's transportation and safety needs are addressed effectively, fostering a resilient and prosperous economic environment for the Strafford region.

2024 Strafford Regional Planning Commission Public Participation Plan (PPP)

The 2024 Strafford Regional Planning Commission (SRPC) Public Participation Plan (PPP) delineates the strategies and actions intended to involve the public in regional transportation planning. It ensures that opportunities are available for community members to engage in the planning process, aiming for fair and equitable representation of all demographics within the Strafford region. The plan emphasizes health justice and racial equity, identifying ways these principles can be embodied in SRPC's practices. It also integrates updates and assessments of SRPC’s organizational policies to strengthen the foundation for both the PPP and accompanying Non-Discrimination Plan. Continuous public involvement and extensive outreach through this plan ensure communities have a voice in shaping transportation policies and projects to create an inclusive and responsive transportation network.

2023 Regional Housing Needs Assessment (RHNA)

The 2023 Strafford Regional Planning Commission (SRPC) Regional Housing Needs Assessment (RHNA) addresses the critical shortage of housing impacting communities, workforce recruitment, and overall economic stability. This comprehensive assessment, conducted in collaboration with other New Hampshire Regional Planning Commissions, analyzes current housing conditions and demographic trends, highlighting a slowdown in housing production and a decline in building permits since the 2003 peak, exacerbated by the mid-2000s recession. The 2023 RHNA, funded by the American Rescue Plan Act (ARPA), aims to provide a foundation for policy changes and regional planning efforts to meet the housing needs effectively.

From a transportation perspective, the housing crisis has significant implications. Increased demand for affordable housing in well-connected areas amplifies the need for robust transportation infrastructure. The RHNA underscores the importance of integrating housing solutions with transportation planning to ensure that communities remain accessible and sustainable. Enhancements in transportation can alleviate pressures on housing by providing better access to employment hubs, thereby balancing regional development.

Public involvement is a pivotal aspect of the RHNA, with the SRPC engaging community members to gather input and highlight the local impacts of the housing shortage, ensuring that the strategies developed are reflective of community needs. This participatory approach helps to align transportation and housing solutions, fostering a cohesive plan that enhances the region's quality of life while addressing critical housing and transportation challenges.

Unified Planning Work Program (UPWP)

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SRPC's Unified Planning Work Program (UPWP) outlines the planning priorities and tasks to be addressed within a two-year period (currently 2024-2025), 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 transportation planning 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

This Safety Action Plan is driven by data analysis that identified when, where, and how crashes occurred in the Stafford Regional Planning Commission (SRPC) 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 New Hampshire Strategic Highway Safety Plan (SHSP) Emphasis Areas. This alignment helps the SRPC to focus roadway safety improvement efforts on locations, policies, and programs that have the greatest chance in moving towards zero fatalities and serious injuries.

General Trends

During the 5-year period from 2018-2022, there were 65 fatal, 220 serious injury, and 1,666 minor injury crashes in the Strafford Regional Planning Commission region. Figure 7 and Table 1 show the trend of fatal, serious, and minor injury crashes.

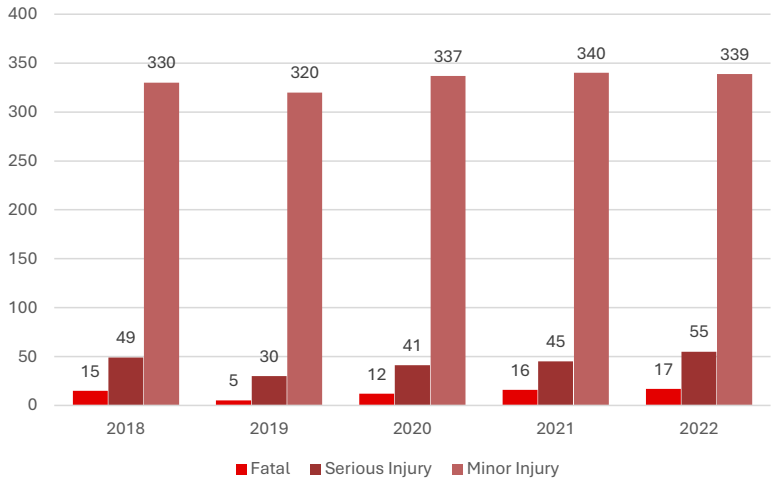


Figure 7: Fatal, Serious, and Minor Injury Crashes by Year, SRPC

Table 1: Crash Total By Severity shows the total number of crashes resulting in all levels of severity – fatal, serious injury, minor injury, possible injury, and property damage only. Total crashes fluctuate over the 5-year period, with the 2020 being the low point of 2,973 crashes, and 2022 being the high point of 3,060 crashes. While 2020 and 2021 represent the two lowest years for total crashes, the proportion of fatal, serious, and minor injury crashes peaked in these years – accounting for approximately 15% of all crashes. Please note that Table 1 does not show total injuries in all crashes, but rather reports the highest severity of injury for each crash during the 2018-2022 period.

Table 1: Crash Total By Severity

Severity	2018	2019	2020	2021	2022	Row Total
Fatal	15	5	12	16	17	65
Serious Injury	49	30	41	45	55	220
Minor Injury	330	320	337	340	339	1,666
Possible Injury	117	139	122	120	133	631
Property Damage Only	2,342	2,479	2,151	2,167	2,516	11,655
Column Total	2,853	2,973	2,663	2,688	3,060	14,237

Emphasis Areas Analysis

Table 2: Crash Severity by Emphasis Area shows the total crashes during the 5-year period for each New Hampshire SHSP Emphasis Area (as rows) broken down by injury severity (as columns). Please note that the columns do not add up to the 'Total' row shown at the bottom of the table. Crashes can involve multiple emphasis areas at once. The three Emphasis Areas with the highest crash totals are Older Drivers (2,479), Distracted Driving (2,455), and Occupant Protection (2,190).

The 'Percent of Emphasis Area Resulting in KAB' column shows the percent of total crashes for each Emphasis Area that result in a fatality, serious, or minor injury. The five leading emphasis areas are, Vulnerable Motorized Users – Motorcycles and Mopeds (65%), Vulnerable Non-Motorized Users – Ped/Bikes (64%), Speed and Aggressive Driving (35%), Impaired Driving (29%) and Roadway Departure (24%). Safety countermeasures should also be chosen with consideration that people involved in these 5 crash types are more likely to suffer a fatal, serious, or minor injury.

Table 2: Crash Severity by Emphasis Area

SHSP Emphasis Area Crashes	Fatal (K) n=65	Serious Injury (A) n=220	Minor Injury (B) n=1,666	Possible Injury (C) n=631	Property Damage Only (O) n=11,655	% of Emphasis Area Resulting in KAB	Percent of Total KAB	Total n=14,237
Intersections	13	14	81	33	396	20%	6%	**537**
Roadway Departure	44	33	214	60	881	24%	15%	**1,232**
Distracted Driving	4	30	337	119	1,965	15%	19%	**2,455**
Impaired Driving	15	22	144	44	398	29%	9%	**623**
Speed and Aggressive Driving	22	13	70	20	171	35%	5%	**296**
Occupant Protection	31	58	406	122	1,573	23%	25%	**2,190**
Older Drivers (65+)	15	51	307	126	1,980	15%	19%	**2,479**
Teen Drivers (18 and Younger)	2	15	141	55	909	14%	8%	**1,122**
Vulnerable Motorized Users – Motorcycles and Mopeds	15	63	165	26	102	65%	12%	**371**
Vulnerable Non-Motorized Users – Ped/Bikes	6	18	67	15	36	64%	5%	**142**

Figure 7: Crash Severity Share by Emphasis Area shows the share of each severity that an Emphasis Ares is involved in – for example, 68% of fatal crashes involved a roadway departure, while 15% of serious injuries involved a Roadway Departure. Of the 65 fatal crashes during the 5-year period, the three Emphasis Areas with the highest share of involvement were Roadway Departure (44 crashes, 68%), Occupant Protection (31 crashes, 48%), and Speed and Aggressive Driving (22 crashes, 34%). By comparing the stark differences in representation across each crash severity, **Figure 7: Crash Severity Share by Emphasis Area** shows that the Emphasis Areas are overrepresented in fatal crashes. Roadway Departure crashes account for 15% of all fatal, serious, and minor injury crashes, while Speed and Aggressive Driving, and Occupant Protection account for 5% and 25%, respectively. Countermeasure strategies that address these Emphasis Areas can help make significant progress in reaching the goal of The Commission is focused on significantly improving transportation safety with ambitious targets set for 2035. These targets include a 75% reduction in fatalities and a 50% decrease in serious injuries. Furthermore, the Commission aims for a complete elimination of fatalities and serious injuries among non-motorized road users.

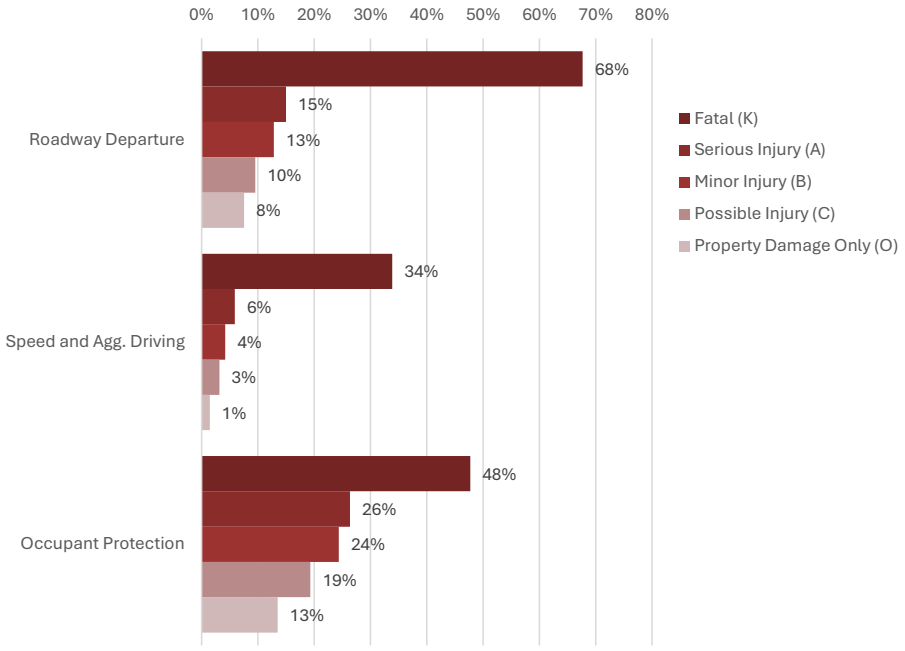


Figure 7: Crash Severity Share by Emphasis Area

Figure 8: Crash Severity Share by Emphasis Area shows the 7 other Emphasis Areas. Distracted Driving, and Teen Drivers are the only Emphasis Areas with a smaller proportion of crashes that result in fatal and serious injuries, compared to minor injury, possible injury, and property damage only crashes. Please note that Distracted Driving is difficult to gather accurate data on, and levels of involvement in crashes are underreported.

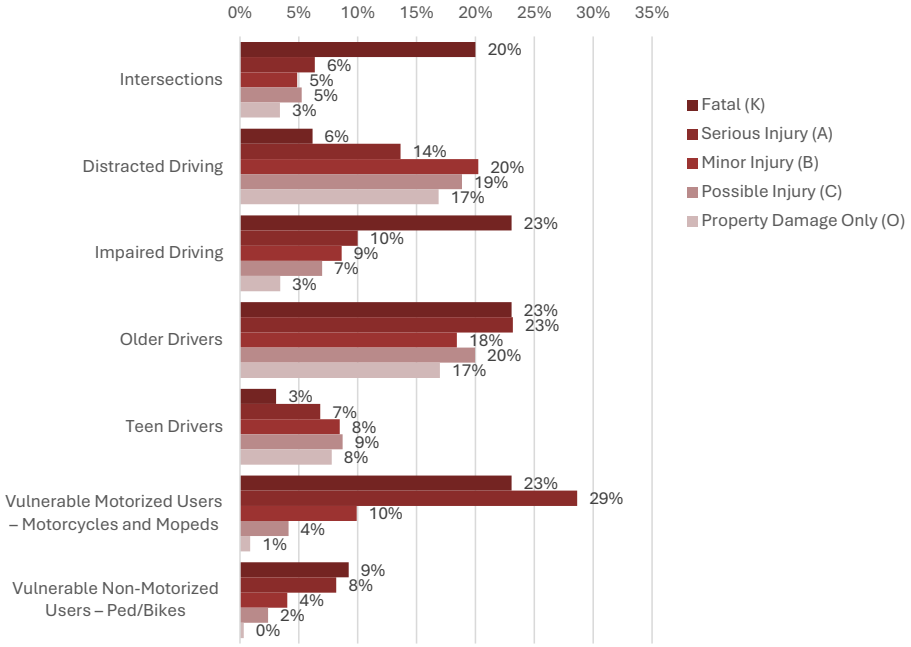


Figure 8: Crash Severity Share by Emphasis Area

Emphasis Area Highlights

The following section highlights 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. These five Emphasis Areas have a high level of involvement in fatal, serious, and minor injury crashes.

Roadway Departure

- 44 (67%) of the 65 fatal crashes in the SRPC involved a Roadway Departure.
- Approximately 24% of Roadway Departure crashes resulted in a fatal, serious, or minor injury.
- There were a total of 1,232 crashes involving a Roadway Departure during the 5-year period.
- 14 (32%) of the 44 fatal Roadway Departure crashes also involved Impaired Driving.
- 19 (43%) of the 44 fatal Roadway Departure crashes also involved Speed and Aggressive Driving.

Occupant Protection

- 31 (48%) of the 65 fatal crashes in the SRPC region involved improper Occupant Protection. During the 5-year period, the average seat belt usage rate was 74% in New Hampshire, and 91% Nationwide[6].
- Approximately 23% of crashes involving improper Occupant Protection resulted in a fatal, serious, or minor injury.
- There were a total of 2,190 crashes involving improper Occupant Protection during the 5-year period.
- 13 (42%) of the 31 fatal Occupant Protection crashes involved a Roadway Departure.
- Improper Occupant Protection is most common with the 26–35-year-old age group. Approximately 13% of all occupants in crashes were not properly restrained.

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

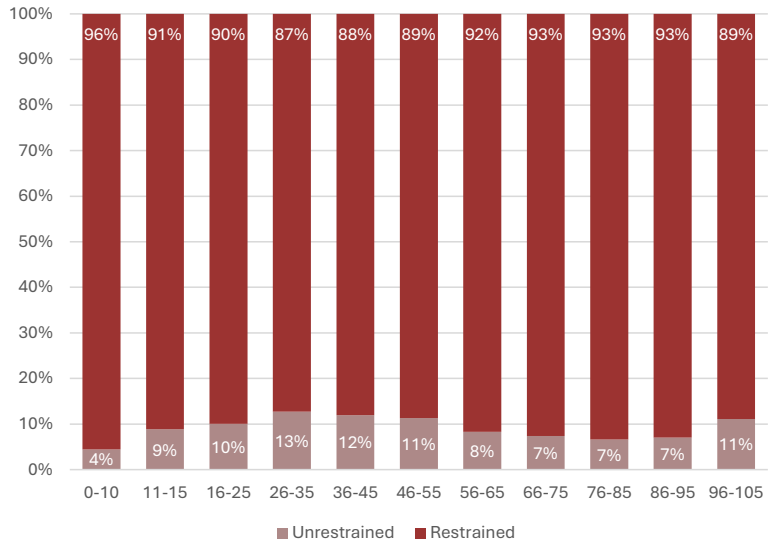


Figure 10: Seat Belt Usage Rate by Age Group

Speed and Aggressive Driving

- 22 (34%) of the 65 fatal crashes involved Speed and Aggressive Driving during the 5-year period in SRPC.
- Approximately 35% of all Speed and Aggressive Driving crashes resulted in a fatal, serious, or minor injury.
- A total of 296 crashes involved Speed and Aggressive Driving during the 5-year period.
- Speed and Aggressive Driving crashes resulting in a fatal, serious, or minor injury fluctuating throughout the year. There were 7 fatal crashes during the month of September—the next highest were August (3) and November (3).

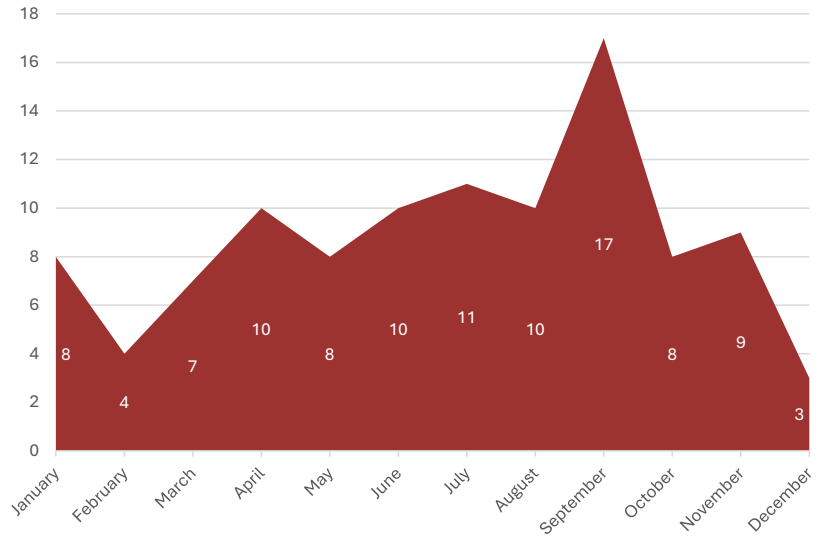


Figure 11: Speed and Aggressive Driving Involved Fatal, Serious, and Minor

Vulnerable Motorized Users – Motorcycles and Mopeds

- 15 (23%) of the 65 fatal crashes involved a Vulnerable Motorized User during the 5-year period.
- Approximately 65% of all Vulnerable Motorized User crashes resulted in a fatal, serious, or minor injury. This is the highest proportion for all Emphasis Areas.
- There were a total of 371 crashes involving Vulnerable Users during the 5-year period.
- 10 of the 15 fatal crashes (66%) occurred on either a Principal Arterial or a Major Collector roadway.
- 47% of fatal Vulnerable Motorized User crashes involved a Roadway Departure.
- 79% of all Vulnerable Motorized User crashes occurred during the warm months of May through September.

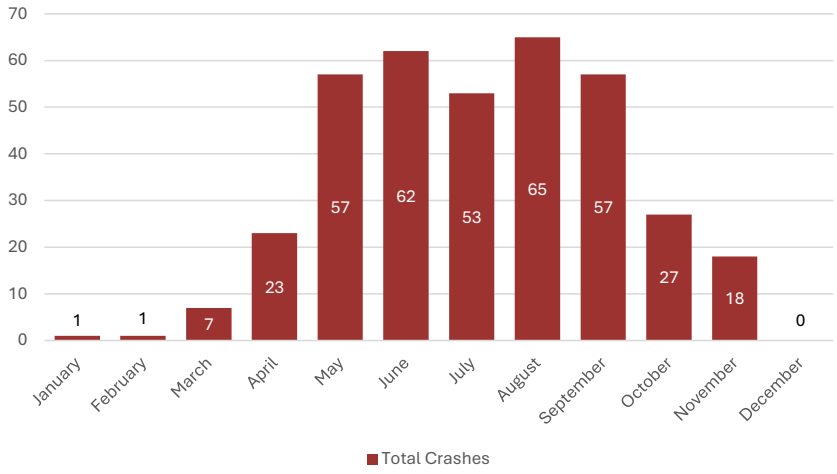


Figure 12: Vulnerable Motorized User Crashes by Month

Vulnerable Non-Motorized Users – Pedestrians and Bicycles

- 6 of the 65 fatal crashes involved a Vulnerable Non-Motorized User during the 5-year period.
- Approximately 64% of all Vulnerable Non-Motorized User crashes resulted in a fatal, serious, or minor injury.
- There were a total of 142 crashes involving a Vulnerable Non-Motorized User during the 5-year period.
- 4 of the 6 Vulnerable Non-Motorized User crashes (67%) occurred away from an intersection.
- Approximately 84% of all Vulnerable Non-Motorized User crashes occurred in either Rochester, Dover, or Durham. Similarly, 86% of Vulnerable Non-Motorized User crashes which resulted in a fatal, serious, or minor injury occurred in these three jurisdictions.

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 impaired driver, who runs off the roadway while speeding. Stated another way, a single crash can involve multiple Emphasis Areas. The following chart below shows the overlap between Emphasis Areas in crashes that result in a fatal, serious, or minor injury—the percentages listed are in reference to the Emphasis Area in the column header. For example, 22% of Older Driver crashes also involved improper Occupant Protection.

The highest overlap in the chart is observed at the ~~intersection~~ combination of Intersection crashes and Occupant Protection crashes. Approximately 37% of crashes that occurred at an intersection involved a motor vehicle occupant not wearing their seatbelt or wearing it incorrectly. In total, Intersections represent approximately 6% of all fatal, serious, and minor injury crashes in the SRPC. Improper Occupant Protection is a risk-taking behavioral choice, while Intersection involvement is a location-based factor in a crash. Furthermore, improperly wearing your seatbelt is a more constant choice, in comparison to the choice of speeding on a certain stretch of roadway. With that in mind, SRPC should consider solutions that improve Occupant Protection usage in the region – for example, an increase in media messaging that promotes the use of seatbelts for all adults and children.

Older Drivers are involved in 19% of fatal, serious, and minor injury crashes, while Younger Drivers are involved in 8%. When comparing the two emphasis areas further, while Older Drivers have a higher involvement in Occupant Protection crashes (22%), Teen Drivers (20%) have a higher level of overrepresentation since they are involved in 11% fewer fatal, serious and minor crashes all together.

In total, Impaired Driving was involved in 9% of all fatal, serious, and minor injury crashes. The crossmatrix chart shows that 32% of Impaired Driving crashes also involved a Roadway Departure, indicating a high level of overlap. Similarly, 36% of Impaired Driving crashes involved improper Occupant Protection. Impaired Driving is a risk-taking behavior that is often coupled with other risk-taking behaviors, like speeding, and not wearing a seatbelt. Impaired Driving also leads to slower reaction times, and navigating corners become a deadly challenge. With high levels of overlap between these risk-taking behaviors, recommendations that address one behavior, like Impaired Driving, may provide an outsized benefit by also addressing Speeding, Distracted Driving, and Occupant Protection crashes.

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

SRPC (KAB) Percentages	*Intersections (n=108)*	*Roadway Departure (n=291)*	*Distracted Driving (n=371)*	*Impaired Driving (n=181)*	*Speeding (n=105)*	*Occupant Protection (n=495)*	*Older Drivers (65+), (n=373)*	*Teen Drivers (18 and Younger), (n=158)*	*Motorcycles and Mopeds (n=243)*	*Bikes and Pedestrians (n=91)*
Intersections	-	2%	4%	3%	8%	8%	8%	9%	5%	14%
Roadway Departure	5%	-	14%	32%	22%	15%	10%	11%	11%	1%
Distracted Driving	12%	18%	-	10%	3%	20%	14%	18%	10%	20%
Impaired Driving	5%	20%	5%	-	15%	13%	3%	3%	5%	5%
Speeding	7%	8%	1%	9%	-	7%	3%	8%	10%	2%
Occupant Protection	37%	25%	26%	36%	33%	-	22%	20%	21%	20%
Older Drivers (65+)	26%	13%	15%	6%	10%	17%	-	9%	15%	21%
Teen Drivers (18 and Younger)	14%	6%	8%	3%	11%	6%	4%	-	3%	4%
Motorcycles and Mopeds	12%	9%	7%	7%	24%	10%	10%	5%	-	0%
Bikes and Pedestrians	12%	0%	5%	3%	2%	4%	5%	3%	0%	-
Total	**6%**	**15%**	**19%**	**9%**	**5%**	**25%**	**19%**	**8%**	**12%**	**5%**

Systemic Analysis

The systemic analysis used crash trees to identify multiple factors 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. For example, road classification, weather conditions, lighting conditions, location of crash, and crash types. The data source for fatal crashes is the Fatality Analysis Reporting System (FARS) which is a national database maintained by National Highway Safety Traffic Administration (NHTSA). The FARS database provides additional fields that are not available in the NHDOT crash database. Therefore, crash trees that analyze fatal crashes may utilize fields that are not available in the NHDOT dataset. The NHDOT data is used for all non-fatal crashes.

Crash Tree: Pedestrian Crash**es** ~~**Locations**~~

Figure 10: Pedestrian Crash Tree below analyzes road classification in Pedestrian involved fatal crashes in SRPC. A total of 6 fatal crashes involved Pedestrians during the 5-year period. Of those 6 crashes, 3 (50%) occurred on Minor Arterials, in an urban context. Major Collector, Local Streets, and Other Principal Arterials accounted for the next highest proportions, with 1 crash each (17%). All of the fatal pedestrian crashes occurred in an urban context. Arterial roads are often popular for pedestrian traffic due to a mixture of uses being present, including residential and commercial uses. Still, the roadway design on these streets may be lacking pedestrian infrastructure, for example missing or incomplete sidewalk networks, long crossing distances, unmarked crosswalks, too great of a distance between intersections, and high vehicle speeds. Installing mid-block crossings, pedestrian lighting, filling in sidewalk network gaps and implementing road diets are examples of ways to improve pedestrian infrastructure.

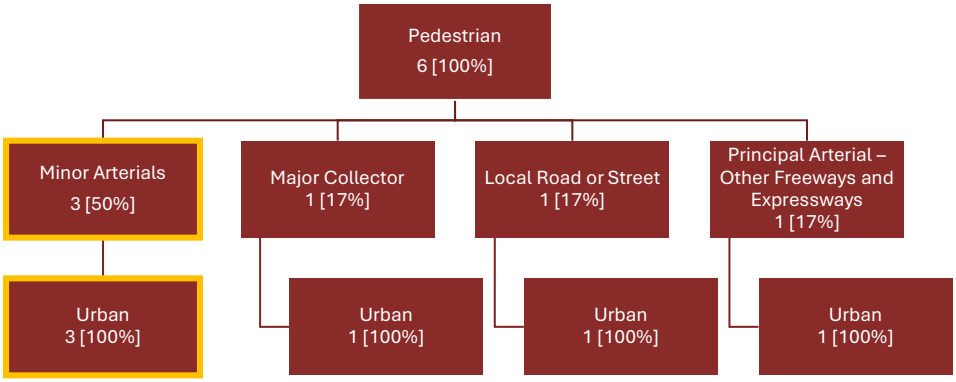


Figure 10: Pedestrian Crash Tree

Crash Tree: Pedestrian Crash Intersection Locations

Figure 11: Pedestrian Crash Tree—Intersection analyzes the lighting conditions where Pedestrian-involved fatal crashes occurred in the Strafford region. A total of 6 fatal crashes involved Pedestrians during the 5-year period. Of those 6 crashes, 4 (67%) occurred at non-intersections. Of the fatal crashes at non-intersection locations three crashes occurred in ~~the dark not~~unlit ~~lighted~~ conditions, and one occurred in daylight conditions. Five of the six fatal crashes occurred in dark conditions with 3 of those being in not lighted areas. Intersections are a natural conflict point due to the convergence of pedestrians and vehicles at the same location; however, they are not where the majority of the fatal crashes including pedestrians occurred. Fatal crashes including pedestrians at non-intersection locations indicates locations where pedestrians are crossing at mid-block crossings or locations that do not have existing or adequate pedestrian infrastructure. Installing mid-block crossings where possible, pedestrian lighting, filling in sidewalk network gaps and implementing rectangular rapid flashing beacons (RRFBs) where possible are examples of ways to improve pedestrian infrastructure.

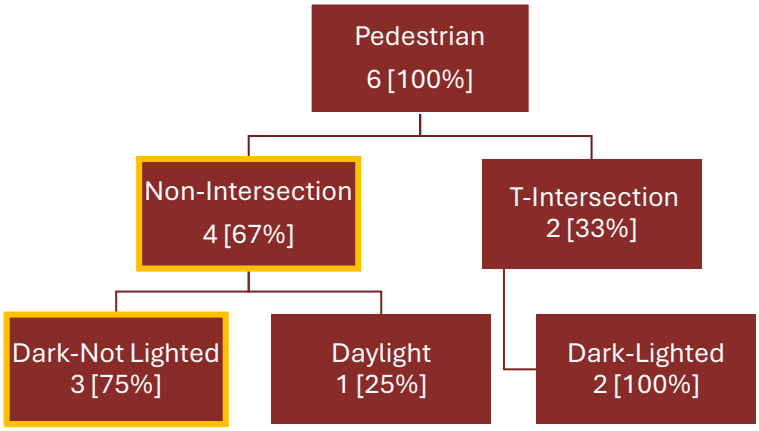


Figure 11: Pedestrian Crash Tree—Intersection

Crash Tree: Fatal Crashes by Location

Figure 12: Intersection Crash Trees shows the breakdown of fatal crashes in ~~SRPC~~the Strafford region, based on whether they occurred at, or away from an intersection. This tree also displays crash types. As shown, 80% of fatal crashes (52 of 66) in SRPC occurred away from an intersection. Of those 52 crashes, 38 did not involve a collision with another motor vehicle. Potential crash types for non-motor vehicle collisions include fixed object crashes, rollover crashes, and pedestrian or bicycle involved crashes. While intersections are a natural conflict point due to the convergence of multiple roads, they are not where the majority of fatal crashes occurred. Non-Intersection crashes not including a collision motor vehicle point to a Roadway Departure crash type. Curve warning signing, edge striping, pavement friction treatments, and centerline and shoulder rumble strips are all examples of ways to keep vehicles on the roadway and reduce the potential of the non-intersection crashes that do not involve a collision with another motor vehicle.

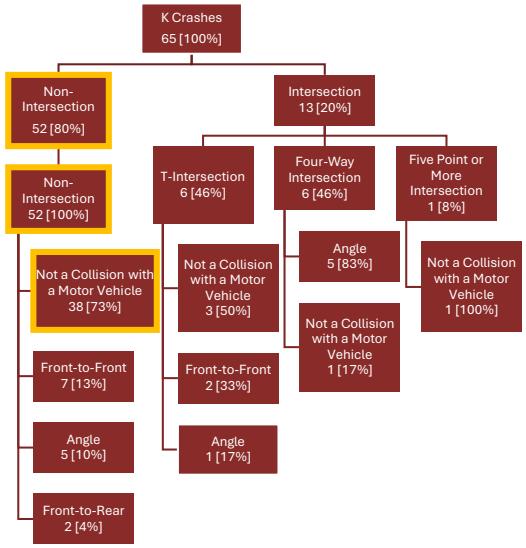


Figure 12: Intersection Crash Trees

Crash Tree: Fatal Crashes by Location—Urban/Rural

Figure 13: Crashes by Location - Urban/Rural shows the breakdown of fatal crashes in SRPC, based on the urban/rural context, roadway type, and whether the crash was classified as Roadway Departure. As shown, 54% of fatal crashes (35 of 66) in SRPC occurred in a rural area. Of those 35 crashes, 13 (37%) occurred on a principal arterial, of which 10 of those were Roadway Departure Crashes. 26 of the 35 rural crashes occurred in a rural area. Curve warning signing, edge striping, pavement friction treatments, and centerline and shoulder rumble strips are all examples of ways to keep vehicles on the roadway and reduce roadway departure crashes in rural areas.

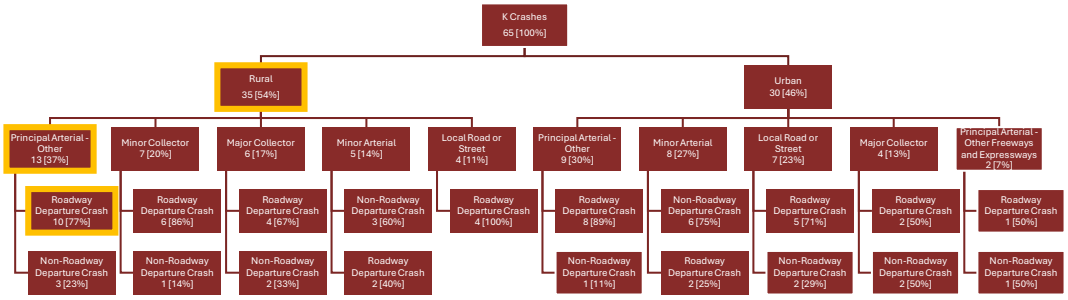


Figure 13: Crashes by Location - Urban/Rural

Equity Analysis

The following section details the Equity Analysis for the Strafford Regional Planning Commission. The U.S. Department of Transportation (USDOT) 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 Vulnerability[7]. 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 the SRPC that were considered Transportation Disadvantaged on a nationwide level[8].

There are four census tracts in the SRPC that are Transportation Disadvantaged. All four are located in Rochester. **Table 4: Census Tract Data** shows a breakdown of the component scores for each disadvantaged census tract. As shown, the four disadvantaged communities tend to score higher in Environmental Burden and Transportation Insecurity. Some of the factors that make up the Environmental Burden score include: toxic release sites proximity, percent of housing stock built before 1980 and impaired surface water. Factors that make up the Transportation Insecurity marker are transportation safety, transportation cost burden, and transportation access.

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.

8 USDOT ETC Explorer – National Results (https://experience.arcgis.com/experience/0920984aa80a4362b8778d779b090723/page/ETC-Explorer---National-Results/)

Table 4: Census Tract Data

Census Tract	Climate & Disaster Risk Burden	Environmental Burden	Health Vulnerability	Social Vulnerability	Transportation Insecurity
Tract 842.01 (Rochester)	23	59	49	48	75
Tract 843.02 (Rochester)	23	69	11	73	77
Tract 843.01 (Rochester)	34	72	4	66	84
Tract 844 (Rochester)	42	75	38	59	60
Average for Disadvantaged Tracts	31	69	26	62	74
Average for SRPC	19	38	34	36	71

Hot Spot Maps

During the 5-year period, 231 (12%) of the 1,951 fatal, serious, and minor injury crashes occurred in a Transportation Disadvantaged census tract in the SRPC. **Figure 14: SRPC Hot Spot Map** 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 depicted in gray shading in **Figure 14: SRPC Hot Spot Map.** The highest concentrations of fatal, serious, and minor injury crashes are shown in Rochester, Dover, and Somersworth.

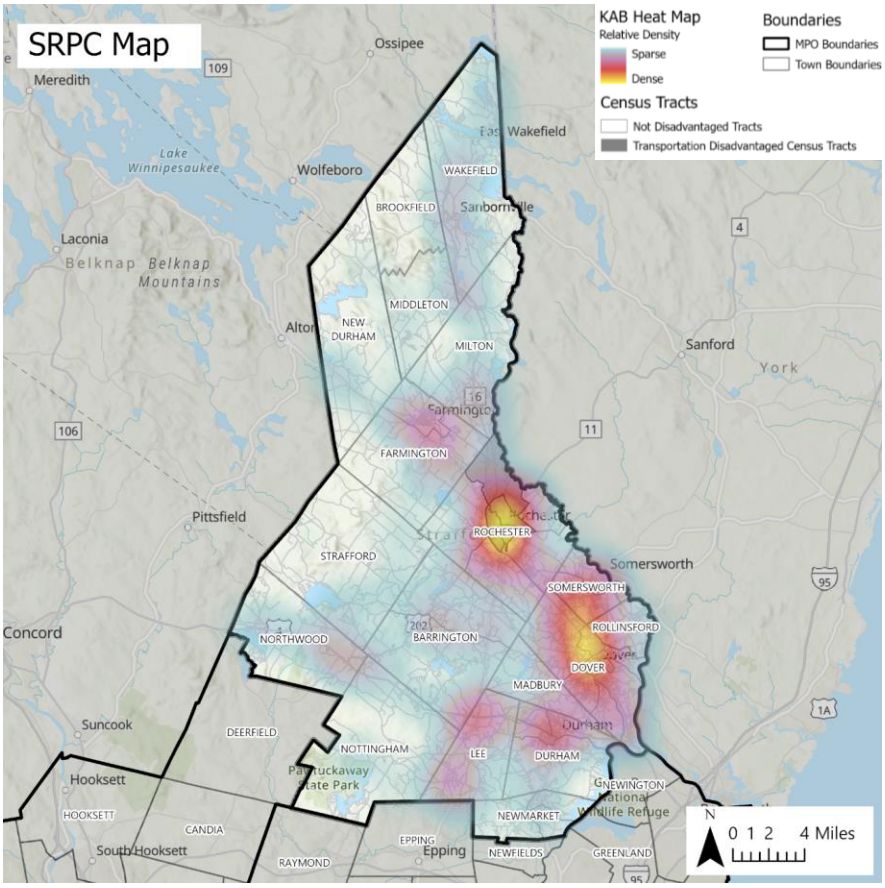


Figure 14: SRPC Hot Spot Map

High Injury Network Analysis

Figure 15: High Injury Network shows the High Injury Network (HIN) corridors for the ~~SRPC~~Strafford region. The High Injury Network analysis identifies a small subset of roads in Strafford Regional Planning Commission 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 XY coordinates that are greater than 100 feet from a road were excluded from this analysis. 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: Crash Cost Table 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 Cost Table (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 48% of eligible crashes, and only 10% of the road network.

There was a total of 1,720 fatal, serious, or minor injury crashes with XY coordinates within 100 feet of a road segment in the SRPC. Across the 50 corridors that qualify, there were a total of 833 KAB crashes. 77% of all Principal Arterial roads are on the HIN. Minor Arterial roads account for 44% of crashes, and only 34% of HIN miles. Similarly, Principal Arterial Roads account for 36% of HIN crashes and 34% of HIN miles.

Table 6: High Injury Network Road Classifications

Road Types	Total Eligible Crashes	Total Miles	HIN Crashes	% of HIN Crashes	HIN Miles	% of HIN Miles
Principal Arterial - Other Freeways and Expressways	131	53	0	0%	0	0%
Principal Arterial - Other	329	78	300	36%	60	34%
Minor Arterial	466	91	365	44%	60	34%
Major Collector	279	144	118	14%	39	22%
Minor Collector	67	63	17	2%	4	2%
Local	398	914	33	4%	13	7%
No Functional System	50	475	0	0%	0	0%
Grand Total	**1,720**	**1,818**	**833**	**100%**	**177**	**100%**

Of the 50 HIN corridors, parts of nine of them fall within a Transportation Disadvantaged census tract. These corridors include North Main Street, Highland Street, Washington Street, Wakefield Street, and the Spaulding Turnpike Connector. All but one of the HIN corridors in a Transportation Disadvantaged tract are classified as Minor or Principal Arterial roads. Brock Street is classified as a Local Road. While there are several towns without roads identified as HIN corridors, that isn't a determination that there are no safety concerns on roads in these towns. For example, in Newmarket there were approximately 9 crashes resulting in a minor injury on Exeter Road between South Main Street and Day Break Drive. In New Durham there were approximately 6 crashes resulting in a serious or minor injury on Kings Highway during the 5-year period.

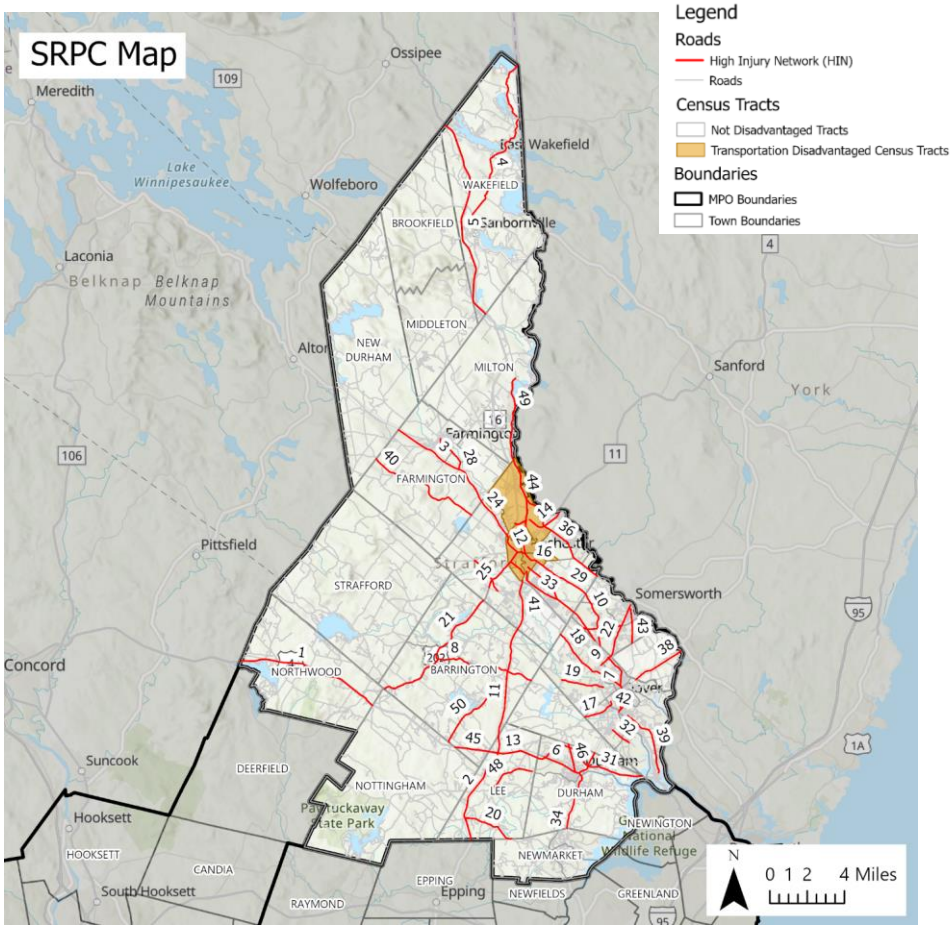


Figure 15: High Injury Network

Census Data Overrepresentation Analysis

Additional Equity analysis overlaid Transportation Disadvantaged census tracts ~~over~~ with data identifying census tracts with higher proportions of the following populations, in comparison to the rest of the Strafford Regional Planning Commission:

- 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, in communities with higher populations aged 65 years old and older, countermeasures should meet the unique needs of this population. In communities with higher poverty rates and a high percentage of zero vehicle households, countermeasure recommendations may emphasize pedestrian, bicyclist, and transit safety.

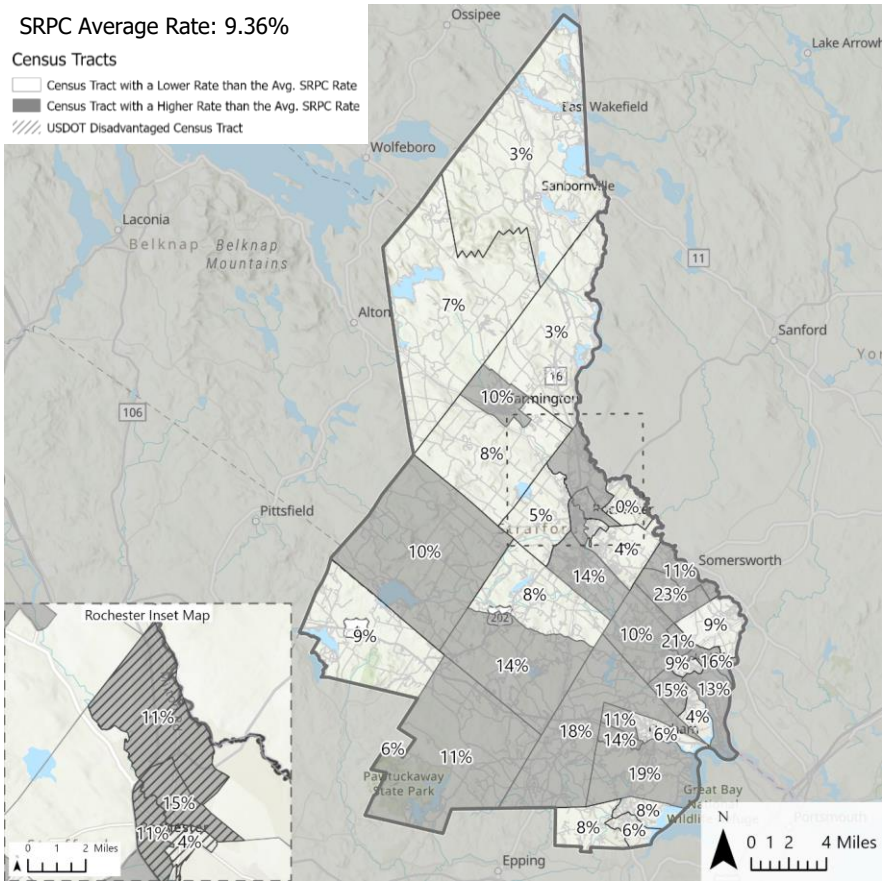


Figure 16: BIPOC Map

The region wide average for persons who identify as Black, Indigenous, or a Person of Color (BIPOC) is approximately 9% in the SRPC. The three census tracts with the highest rates are tract 801 (18%, Durham), tract 815 (21%, Dover) and tract 830.02 (23%, Somersworth). During the 2018-2022 period, 67% of crashes (all severities) occurred in a census tract with a higher-than-average rate of people who identify as BIPOC. During the same period, a slightly lower rate—66%—of fatal, serious, and minor injury crashes occurred in those same census tracts.

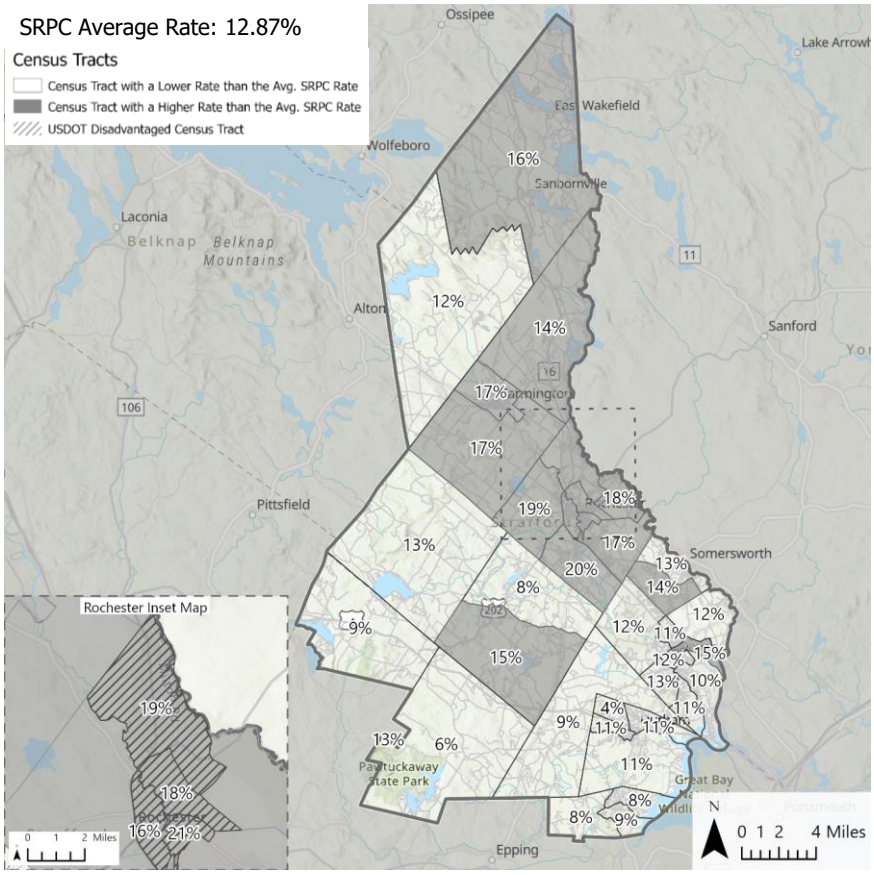


Figure 17: Disability Map

The region wide rate of persons with a disability is approximately 13%. Several census tracts in Rochester have rates that are more than 5% higher than the regional average. Three of the four Transportation Disadvantaged tracts have rates at 18% or higher (tract 842.01, tract 843.01, and tract 843.02). Outreach in these communities can help identify what the unique needs of these populations are, and what countermeasure improvements should be emphasized. Some may have visual impairments, or auditory impairments, while others may have ambulatory impairments.

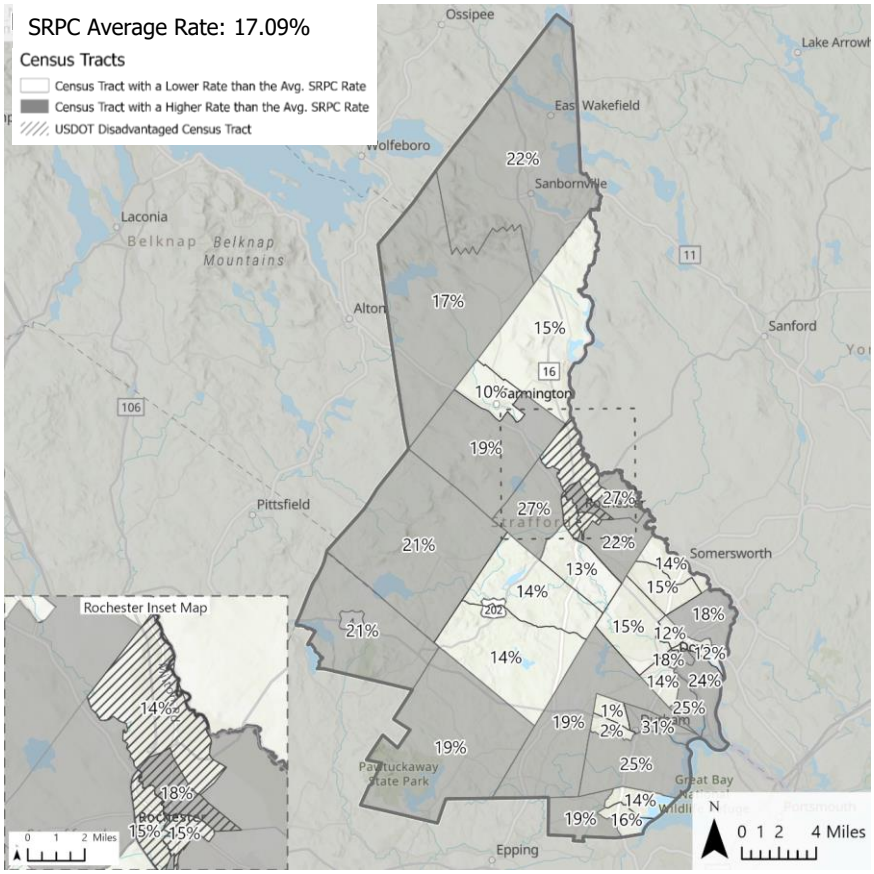


Figure 18: Older Population Map

Approximately 17% of people in the Strafford region are aged 65 and older ~~in the Strafford Regional Planning Commission~~. The highest rate is in tract 802.02 which is in Durham. As we age, we can become more susceptible to injury, reaction time can become slower, vision may be reduced, and safe driving abilities can be affected. 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, SRPC should consider the needs of the aging population. For example, in areas where Older Driver nighttime crashes are prevalent, installing high visibility materials on traffic signage and signals can enhance conspicuity.

During the 2018-2022 period 56% of fatal, serious, and minor injury crashes occurred in a census tract with a higher-than-average rate of people aged 65 or older. During this same period, 57% of older driver crashes resulting in a fatal, serious, or minor injury occurred in those same census tracts.

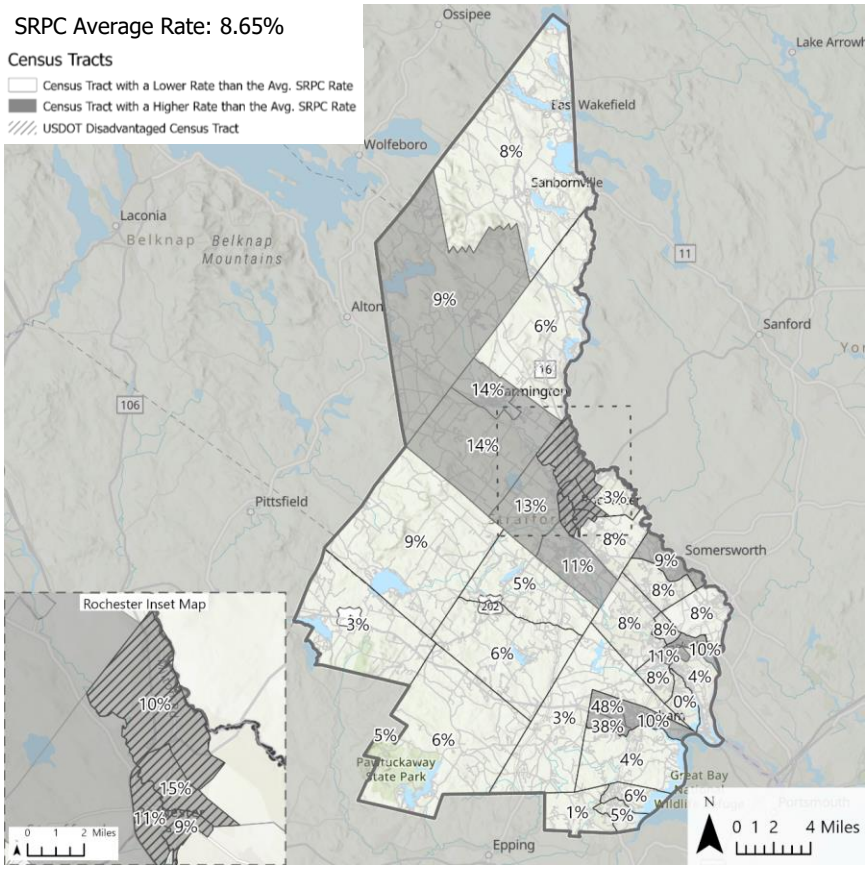


Figure 19: Poverty Rate Map

The region wide rate of persons living in poverty is approximately 9%. The highest rates are in tracts 802.03 (38%, Durham) and 802.04 (48%, Durham), but it is worth noting that these census tracts are likely high because they overlap with the University of New Hampshire campus. Aside from these tracts, the highest poverty rate is in tract 843.02 (15%, Rochester). 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 2018-2022 period, 38% of fatal, serious, and minor injury crashes occurred in a census tract with a higher-than-average rate of people in poverty. During this same period, approximately 63% of bicycle and pedestrian crashes that

resulted in a fatal, serious, or minor injury occurred in those same census tracts (Figure 20: Bicycle and Pedestrian Involved Crashes and Poverty Rate Map).

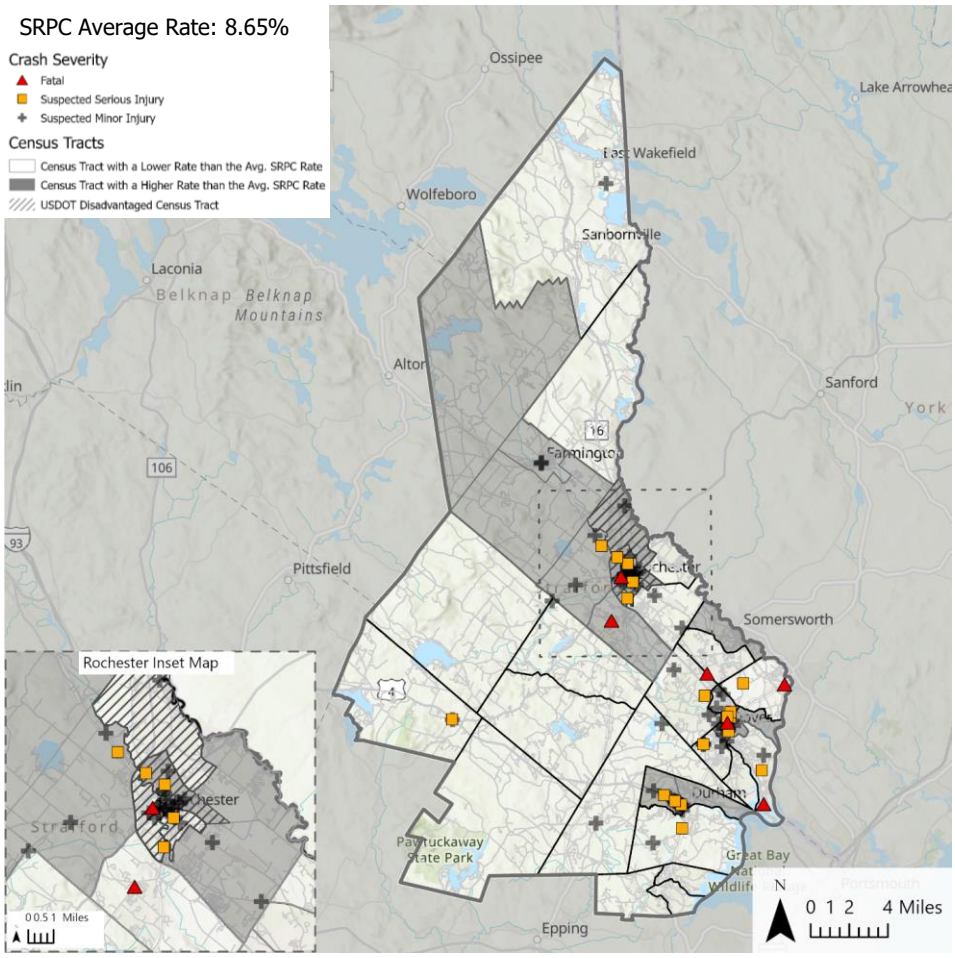


Figure 20: Bicycle and Pedestrian Involved Crashes and Poverty Rate Map

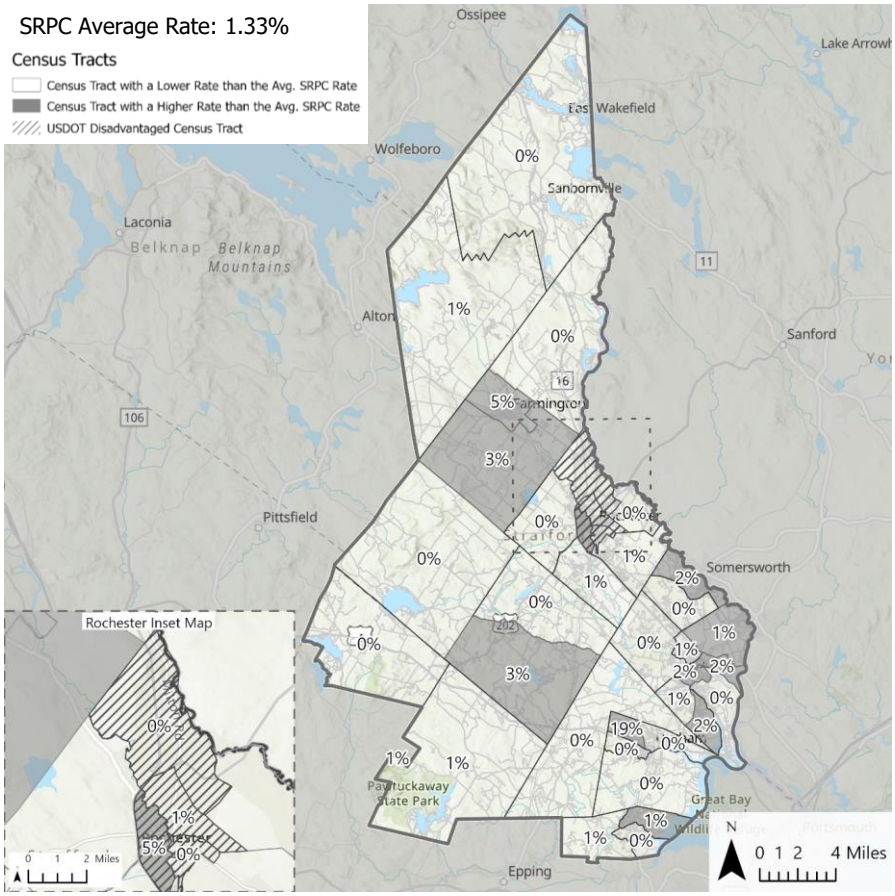


Figure 21: Zero Vehicle Household Map

Zero vehicle households are households that do not have access to at least one motor vehicle. The rate households in the SRPC that do not have access to a vehicle is approximately 1%. Similarly to the poverty rate analysis, approximately 19% of people in tract 802.04 in Durham do not have access to a vehicle – this tract encompasses the University of New Hampshire. Otherwise, most tracts throughout the region have rates from 1-3%. Approximately 5% of households in tract 844 in Rochester, and tract 870.01 in Farmington do not have access to a vehicle.

During the 5-year, 2018-2022 period, 28% of all fatal, serious, and minor injury crashes occurred in a census tract with a higher-than-average rate of zero vehicle households. However, 41% of bicycle and pedestrian crashes which resulted in a fatal, serious, or minor injury occurred in those same census tracts (*Figure 22: Bicycle and Pedestrian Involved Crashes and Zero Vehicle Households Map)*. This

highlights the importance of implementing countermeasures that improve bicycle and pedestrian safety in census tracts with high rates of zero vehicle households.

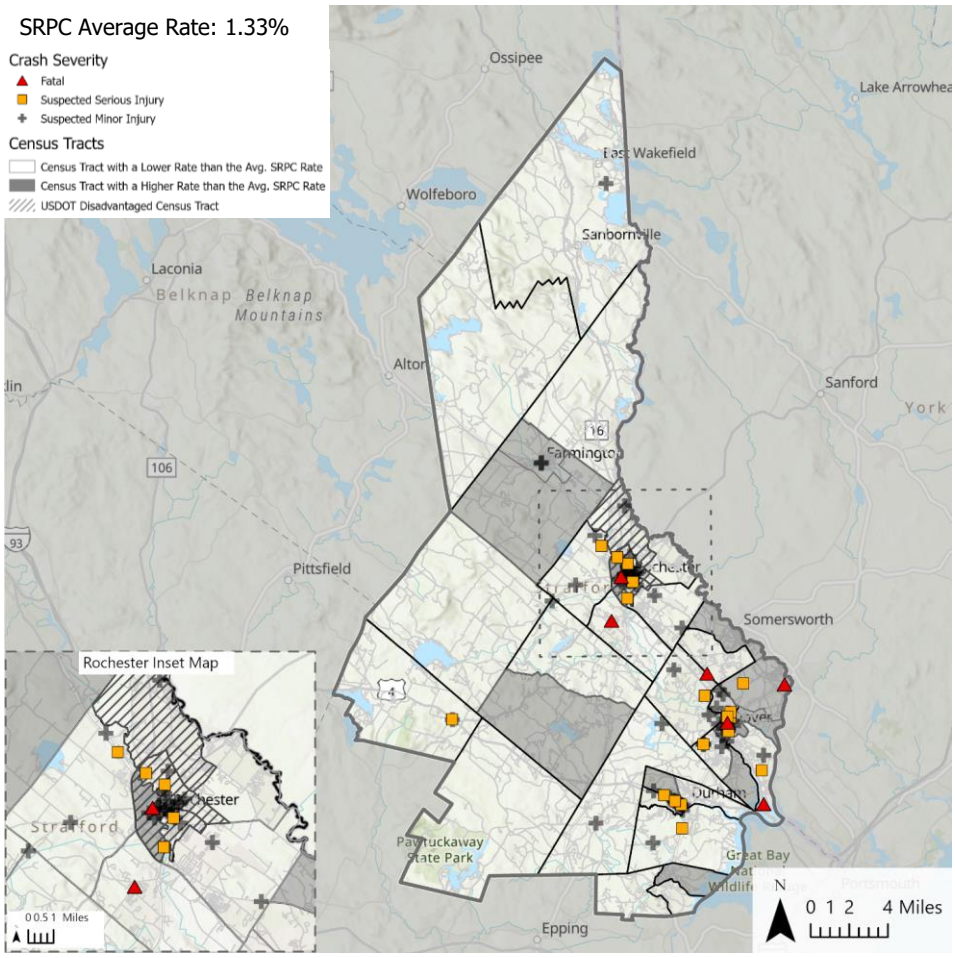


Figure 22: Bicycle and Pedestrian Involved Crashes and Zero Vehicle Households Map

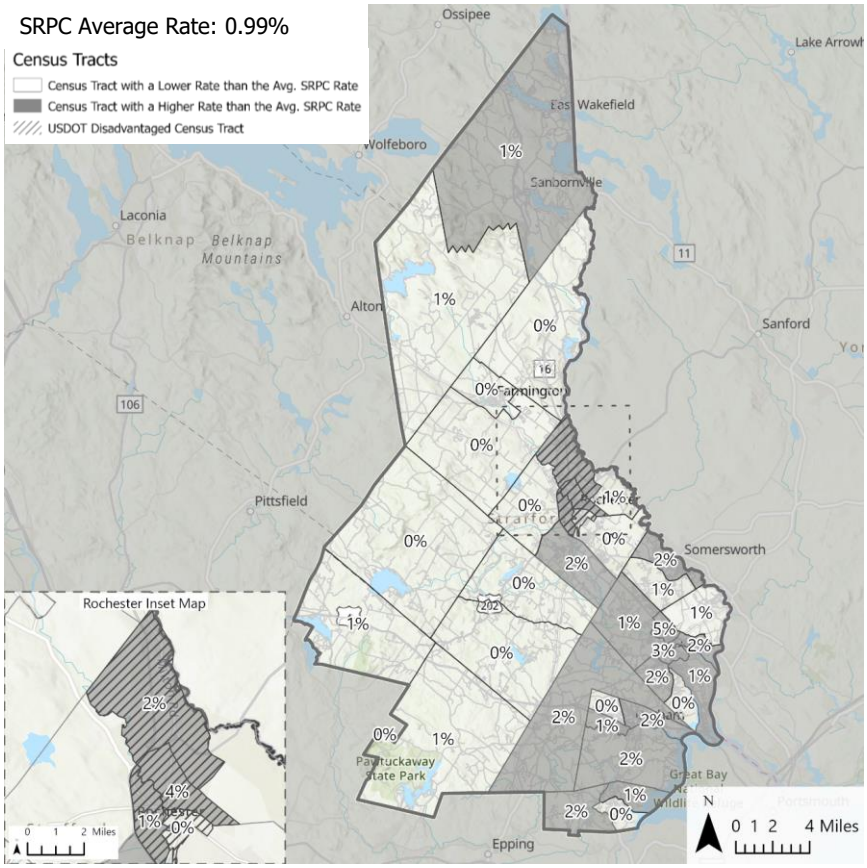


Figure 23: Limited English Proficiency Map

The region wide rate of persons with limited English proficiency is approximately 1%. Rates range from 1-5% throughout the region. Census tract 815 in Dover is the only tract with 5% of people experiencing limited English proficiency. Ensuring that educational materials for road and transportation safety are available in languages other than English is important for bridging the language barrier. Outreach in these communities can identify what languages people can read.

Prioritization of Safety Countermeasure Improvements

Safety countermeasures should be prioritized on corridors where the most fatal, serious and minor injuries are occurring. 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:

- Arterial roads (principal and minor)
- Collector roads
- 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, 44% (365) of fatal, serious, and minor injury crashes that occurred on the HIN were on Minor Arterial roads, and 36% (300) were on Principal Arterial roads. Approximately 16% occurred on Collector roads, and 4% 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 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 "Strategy Tables" below for a complete list of actions that may be taken to reduce fatal, serious, and minor injuries.

Arterial Roads

Street Name:	HIN Rank	Municipality	From Street	To Street
First New Hampshire Turnpike	1	Northwood	Paradise Lane	Cooper Hill Road

Road Classification: Principal Arterial

Context: Two-lane regional rural/suburban residential arterial. Some sections have a center, two-way, left turn lane.

Countermeasure Recommendations:

- Centerline and edge line rumble strips
- Clear zone maintenance
- Speed feedback signs
- Transverse rumble strips where speed limits change
- Improve lighting along roadways
- Enhanced delineation for horizontal curves
- Systemic stop-controlled improvements

Street Name:	HIN Rank	Municipality	From Street	To Street
High Street	22	Somersworth	Weeks Lane	Maple Street

Road Classification: Principal Arterial

Context: 2-5 lane low density commercial/suburban residential arterial.

Countermeasure Recommendations:

- Improve lighting along roadways—introduce pedestrian scale lighting
- Speed feedback signs
- Lane narrowing/striping edge lines
- Access management—consolidate driveways, implement right-in right-out only turns
- Rectangular Rapid Flashing Beacons (RRFBs)
- Pedestrian Hybrid Beacons (PHBs)
- Bicycle lanes
- Crosswalk visibility enhancements
- Road diets—install curb bump-outs
- Install/repair sidewalks where necessary

Collector Roads

Street Name:	HIN Rank	Municipality	From Street	To Street
Province Lake Road	4	Wakefield	Wakefield Road	Butterfield Road

Road Classification: Major collector

Context: 2 lane regional rural residential collector. Narrow, with poorly maintained clear zone and frequent horizontal curves.

Countermeasure Recommendations:

- Clear zone maintenance
- Systemic stop-controlled improvements
- Install Safety Edge
- Improve lighting along roadways
- Widen paved shoulders

Street Name:	HIN Rank	Municipality	From Street	To Street
Newmarket Road	34	Durham	Simons Lane	Main Street

Road Classification: Major Collector

Context: Two-lane rural/suburban residential collector. Sidewalks present in some locations.

Countermeasure Recommendations:

- Enhanced delineation for horizontal curves
- Centerline and edge line rumble strips
- Improve lighting along roadways
- Bicycle lanes
- Crosswalk visibility enhancements
- Rectangular Rapid Flashing Beacons (RRFBs)
- Transverse rumble strips where speed limit changes
- Paint wider edge lines

Local Roads

Street Name:	HIN Rank	Municipality	From Street	To Street
Spruce Lane	32	Dover	Mast Road	Garrison Road

Road Classification: Local road

Context: Suburban residential with pedestrian facilities.

Countermeasure Recommendations:

- Improve lighting along roadways
- Bicycle lanes
- Crosswalk visibility enhancements
- Rectangular Rapid Flashing Beacons (RRFBs)
- Install/repair sidewalks where necessary
- Enhanced delineation for horizontal curves
- Centerline and edge line rumble strips

Street Name:	HIN Rank	Municipality	From Street	To Street
Brock Street	30	Rochester	Gonic Road	Washington Street

Road Classification: Local

Context: Suburban residential with an elementary school

Countermeasure Recommendations:

- Raised pedestrian crossing
- Improve lighting along roadways
- Bicycle lanes
- Crosswalk visibility enhancements
- Rectangular Rapid Flashing Beacons (RRFBs)
- Transverse rumble strips
- Lane narrowing/striping edge lines
- Install/repair sidewalks where necessary

Street Name:	HIN Rank	Municipality	From Street	To Street
Durham Point Road	NA	Durham	Newmarket Rd (108)	Cushing Rd

Road Classification: Local

Context: Scenic, rural, residential loop road with high bicycle volumes

Countermeasure Recommendations:

- Spot geometric improvements to improve sight lines (e.g. at horizonal curves)
- Brush and tree trimming
- Pavement widening at select locations for safer motorist passing of cyclists
- Pavement replacement and rehabilitation
- Speed feedback signs

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

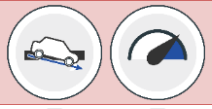
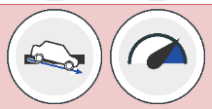
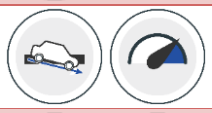

Occupant protection (seat belt usage)


Impaired driving


Vulnerable motorized users (motorcycles and mopeds)


Vulnerable non-motorized users (pedestrians and bicyclists)

Table 7: Safety Countermeasures by Emphasis Area

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 SafetyEdge^{SM} treatment	Suburban, rural	
High Friction Surface Treatment	Suburban, rural	

Countermeasure	Context	Emphasis Area Addressed
Speed humps/tables	Urban, suburban, low speed rural	
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.

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Table 8: 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.	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.	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.	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.	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.

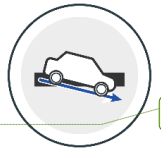

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Table 9: Roadway Departure

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 Edge^{SM} 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
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

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
2.1.6	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
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
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

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
2.2.5	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
2.3.3	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
2.3.4	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

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 2.5: 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
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 distracted driving crashes by XX percent by 20XX.

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Table 10: 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.	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.	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 technologies which help to provide drivers information on current status of surrounding infrastructure. Advocate for continued improvement of in-vehicle electronics and safety systems to reduce the distraction they may present to the driver.	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.

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Table 5: 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
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

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
4.1.5	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
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
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.

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Table 6: 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
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

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
5.1.5	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
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

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
5.2.3	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
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.

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Table 7: 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.	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	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.	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	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.	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.

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Table 8: 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.	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.	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.	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
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, Bureau of Adult & Aging Services (BAAS)	Adoption of policy	All areas	All areas	Safer Road Users	NHDMV	★★	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
7.2.3	Conduct AARP Smart Driver program to help drivers over 55 refresh their driving skills.	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.	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

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.

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Table 9: 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.	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).	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, and not driving distracted.	Cities and Local Agencies, County Police, Local Police	Number of	All areas	All areas	Safe Road Users	Municipalities, SS4A	N/A	Medium	Long
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.	Cities and Local Agencies	Number of clicks	All areas	All areas	Safe Road Users	Municipalities, SS4A	★★★	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
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.	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
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.	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.	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.	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.

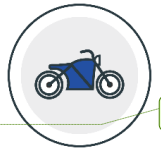

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Table 10: Vulnerable Road Users Motorize: Motorcycles and Mopeds

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.	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.	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.	Cities and Local Agencies	Number of hours	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	Medium	Medium
9.2.3	Encourage and incentivize defensive driving courses for new motorcycle drivers.	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.	Cities and Local Agencies	Number of campaigns	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
9.2.5	Increase use of news media and social media to draw attention to training and safe motorcycle operation.	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.	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.	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.

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Table 11: 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 sidewalks, 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
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

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
10.1.5	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
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

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
10.2.4	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
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

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
10.3.2	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
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	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 SRPC 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. With the completion of the Regional Safety Action Plan, communities within the MPO can also apply directly for 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 by NHDOT 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~~the 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 SRPC 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 SRPC will build upon the foundational analysis of the initial plan and enhance it with new data. For evaluating process outcomes, the SRPC 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 and will be incorporated into the annual HSIP target setting process and MPO System Performance Report.

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 SRPC 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 SRPC's website and social media channels to remind the public about roadway safety and to announce notable upcoming events or projects. Additionally, SRPC may conduct surveys periodically to gauge public awareness of the plan's implementation and to gather feedback on emerging roadway safety issues.

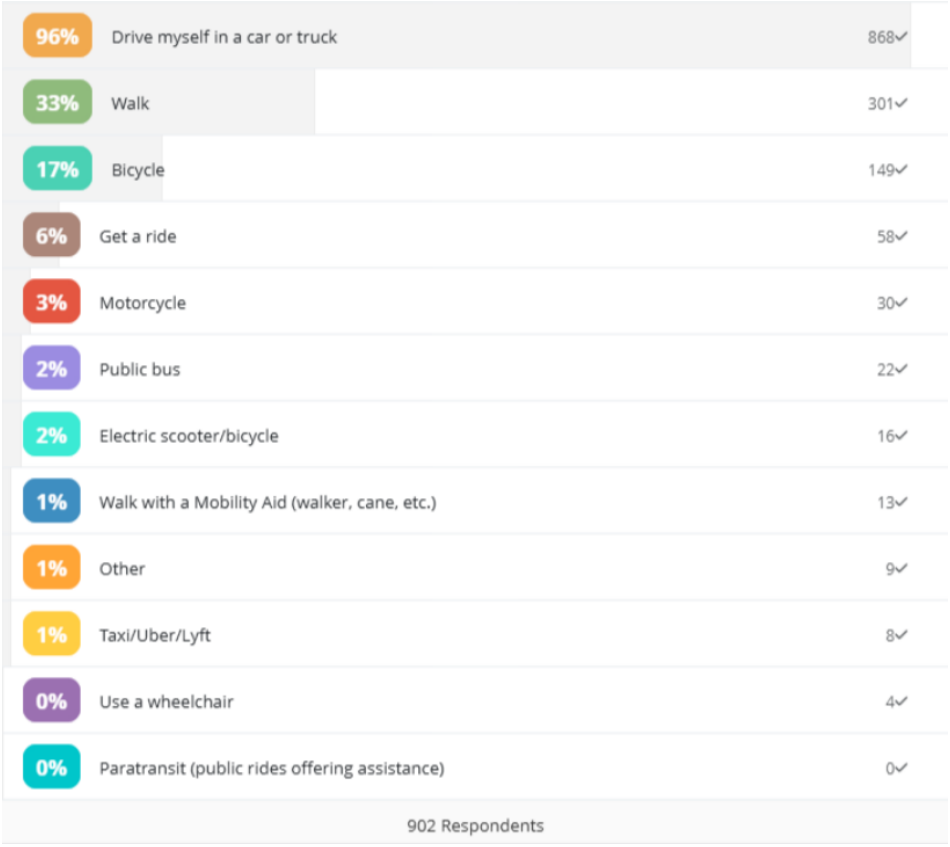
Integration with the Plan

SRPC 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 SRPC. However, updates to individual strategies and actions may occur more frequently to reflect ongoing progress and any new policies that influence implementation. SRPC will take the lead in updating the plan, with support from various stakeholders, the MPO Transportation Advisory Committee, and the MPO Policy Committee. Feedback from public reporting and engagement activities will be integrated into these updates. Additionally, updates to the Safety Action Plan will be integrated into the processes for the Long Range Transportation Plan, the Ten Year Plan project prioritization process, the Congestion Management Process, and the tracking of safety performance metrics in the System Performance Report.

APPENDIX A: Survey Results

Question 1

How do you typically get around for daily travel or errands? Select up to three of the following options that best represent your typical ways to get around:



Question 2

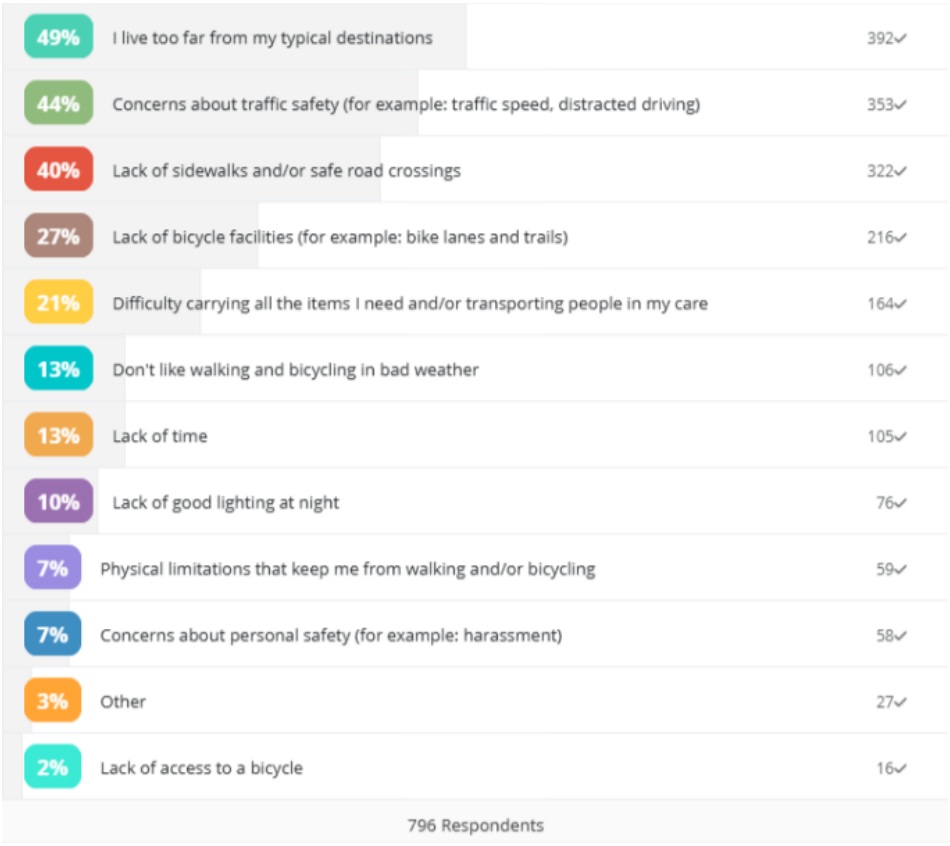
How safe do you feel while traveling in each of the following ways:

	Not Safe At All	Somewhat Safe	Fairly Safe	Mostly Safe	Very Safe	N/A
Driving Personal Vehicle	3% Not Safe At All	13% Somewhat Safe	18% Fairly Safe	39% Mostly Safe	26% Very Safe	1% N/A
Carpool	2% Not Safe At All	7% Somewhat Safe	9% Fairly Safe	14% Mostly Safe	7% Very Safe	62% N/A
Motorcycle	12% Not Safe At All	5% Somewhat Safe	4% Fairly Safe	3% Mostly Safe	1% Very Safe	75% N/A
Public Transit (Bus, Vanpool, etc.)	3% Not Safe At All	5% Somewhat Safe	7% Fairly Safe	10% Mostly Safe	7% Very Safe	68% N/A
Walking	12% Not Safe At All	25% Somewhat Safe	25% Fairly Safe	23% Mostly Safe	9% Very Safe	7% N/A
Walking with Mobility Aid (wheelchair, walker, cane, etc.)	6% Not Safe At All	3% Somewhat Safe	2% Fairly Safe	2% Mostly Safe	1% Very Safe	86% N/A
Bicycle (or similar self-powered vehicle)	23% Not Safe At All	21% Somewhat Safe	11% Fairly Safe	6% Mostly Safe	3% Very Safe	37% N/A
Electric scooter/bicycle	10% Not Safe At All	7% Somewhat Safe	3% Fairly Safe	1% Mostly Safe	1% Very Safe	78% N/A
Other (please specify in the comments below)	2% Not Safe At All	1% Somewhat Safe	2% Fairly Safe	1% Mostly Safe	1% Very Safe	93% N/A

865 responses

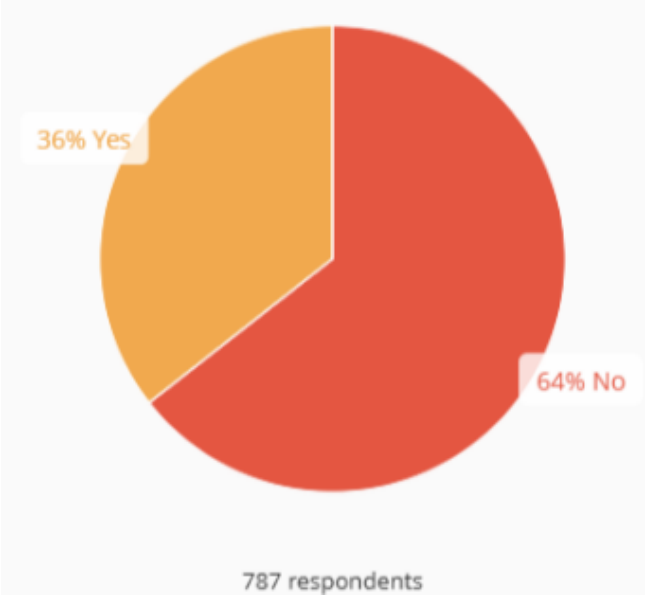
Question 3

If you drive regularly for most or all of your trips, what prevents you from walking or bicycling more often? (Select your top 3 barriers to walking or biking)



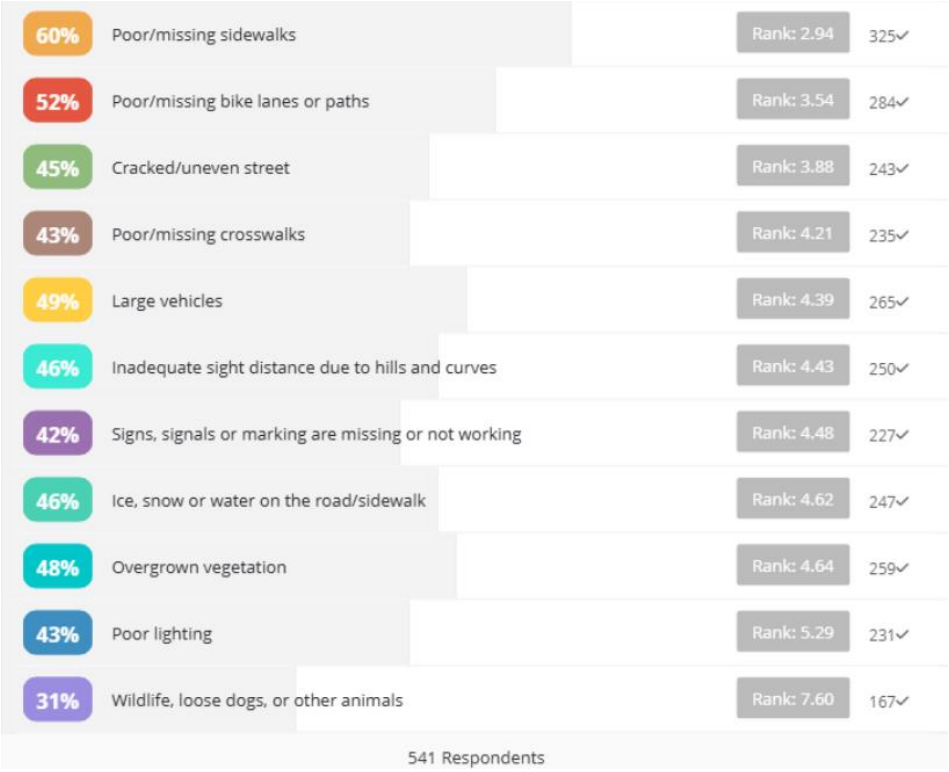
Question 4

Have you or someone you know been involved in a traffic crash within the region of this study.



Question 5

What are your top road safety concerns that have to do with conditions of the road? Please rank the following according to your experience, from highest to lowest priority to improve safety, with 1 being the highest priority:



Question 6

What are your top road safety concerns that have to do with driver behavior? Please rank the following according to your experience, from highest to lowest priority to improve safety, with 1 being the highest priority:

Questions 7-10

For questions 7-10, respondents were asked to identify their priorities for safety improvements related to regional transportation. They were instructed to mark up to three locations for each category of improvement on digital maps, indicating where they desired enhancements in:

- Motor Vehicle Safety
- Pedestrian Safety
- Bicycle Safety
- Any Additional Safety Improvements Not Addressed Previously

Note: These maps can be viewed in the Public Survey section of the Action Plan and are not included here.

Questions 11-13

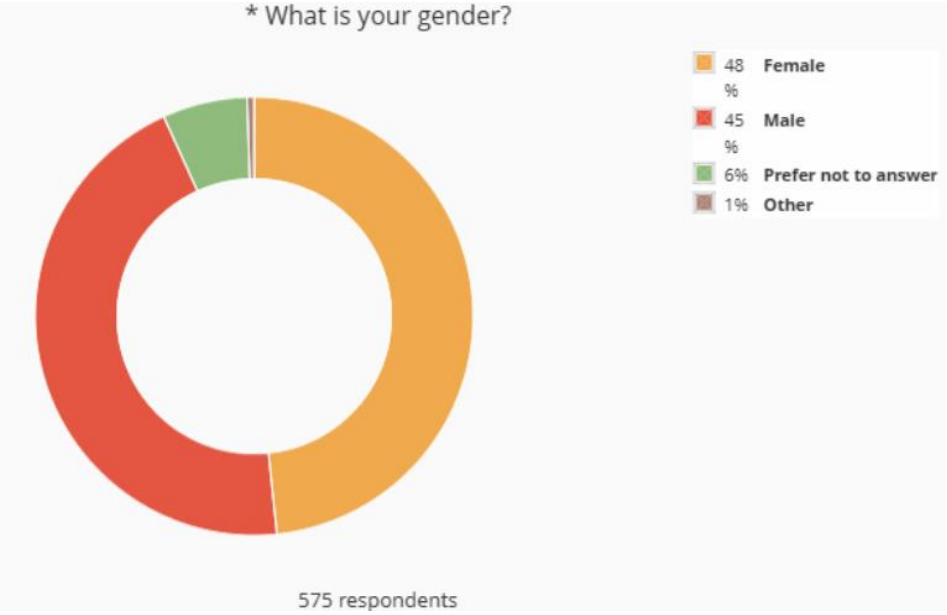
For Questions 11-13, respondents were asked to provide written responses to the following questions:

- Do you have any other specific safety concerns you want to share with the project team?
- Do you have any suggestions for improving road safety in your community that you would like to share?
- Are there any recent infrastructure improvements that have already contributed to your ability to walk or bike more safely and easily?

The responses varied which made it impractical to include them all in this appendix. However, the insights gained were crucial in developing the Strategy Tables within this Action Plan.

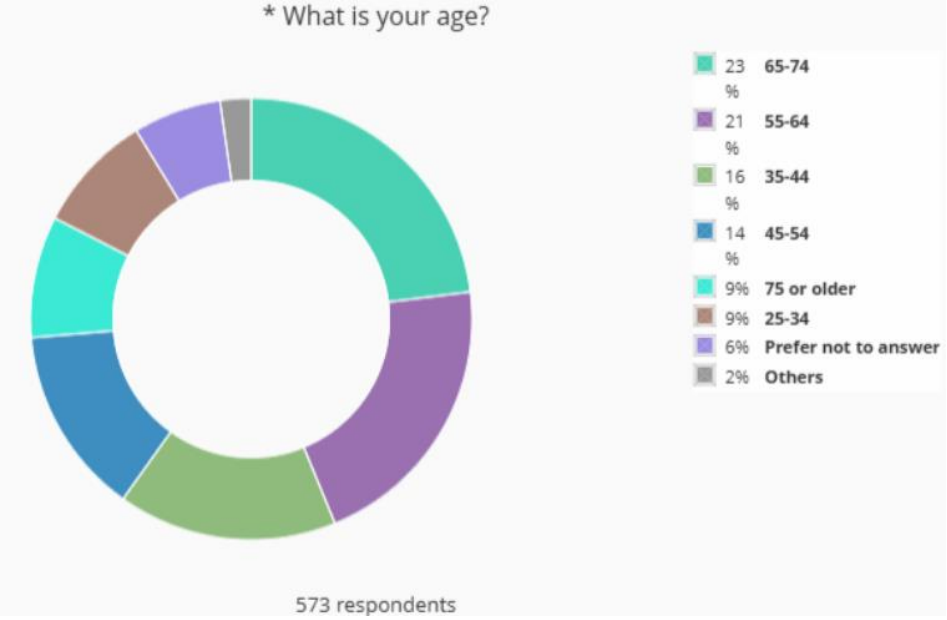
Question 14

What is your gender?



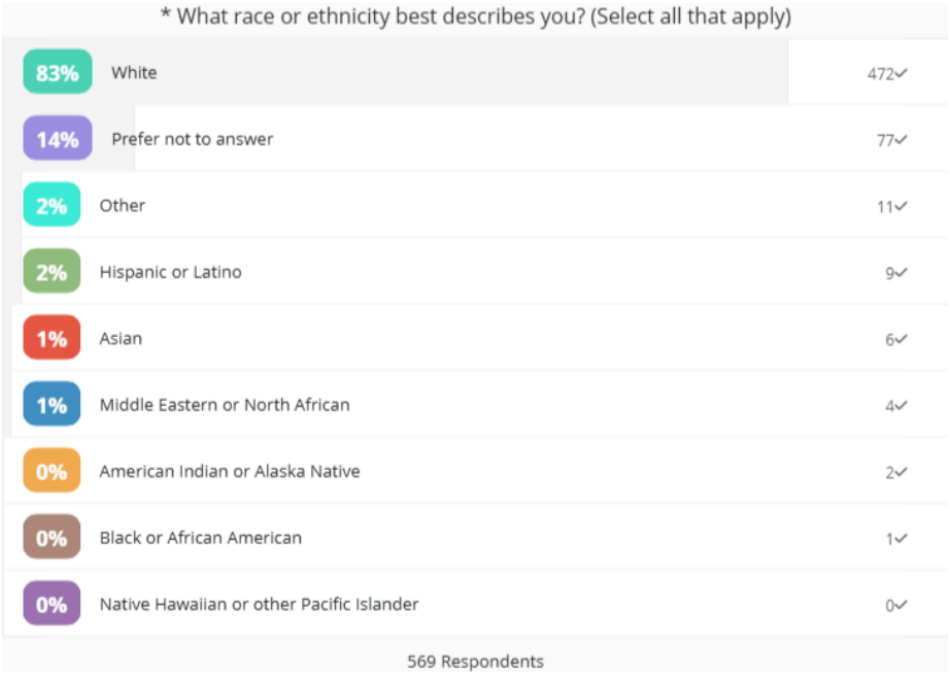
Question 15

What is your age?



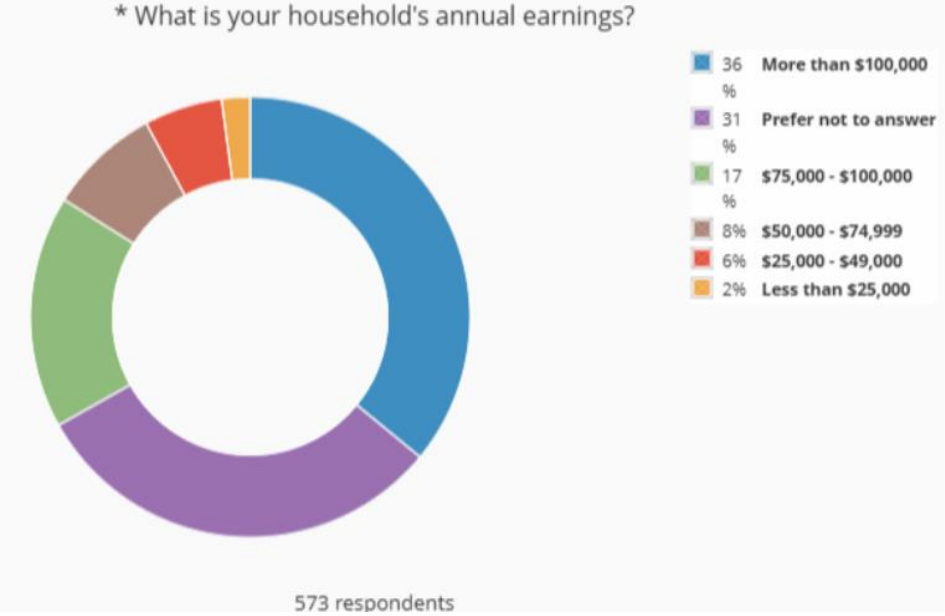
Question 16

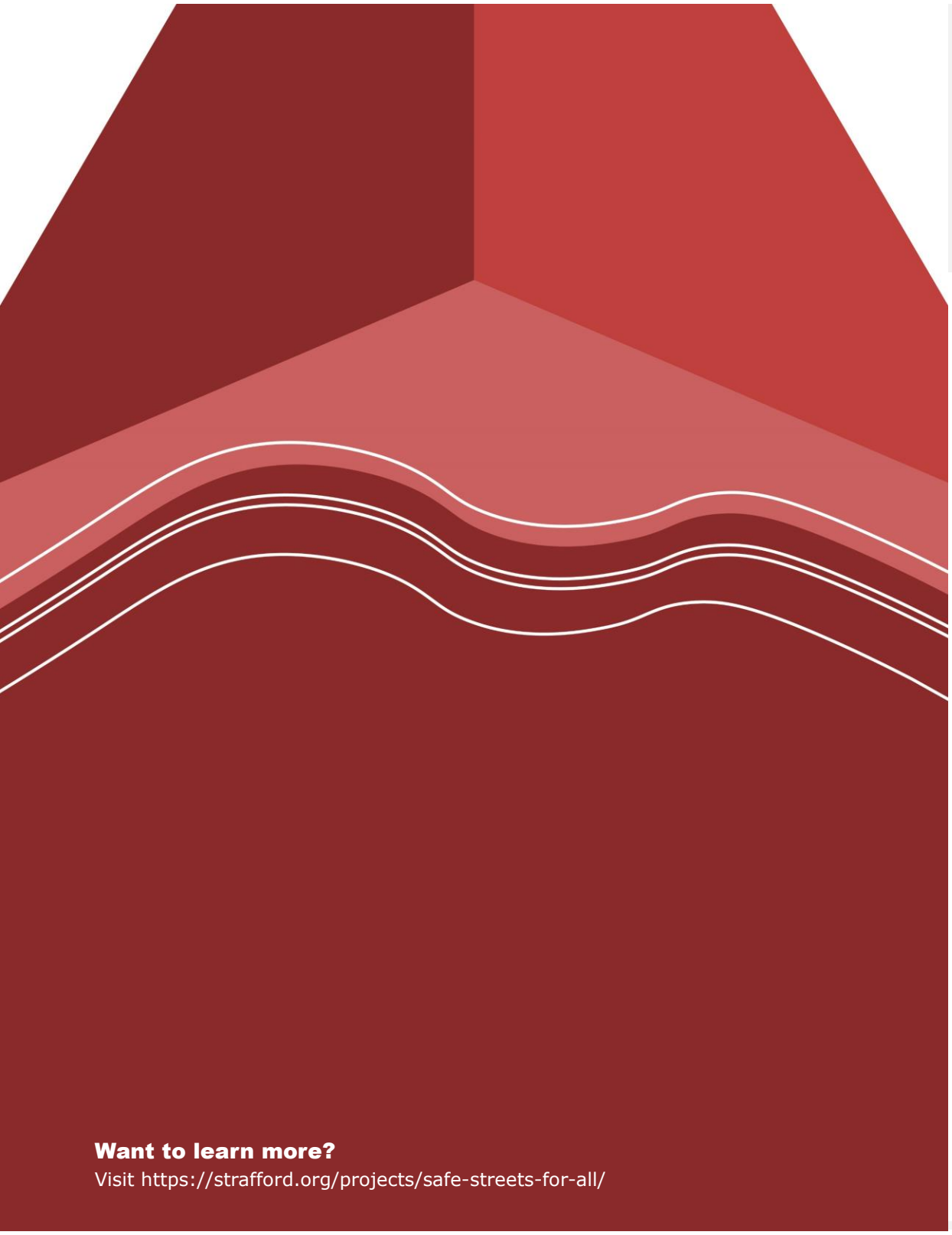
What race or ethnicity best describes you? (Select all that apply)



Question 17

What is your household’s annual earnings?





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