Berkshire County

STEPS

Safe **T**ravel and **E**quity **P**lan for our **S**treets

A Safe Streets for All (SS4A) Comprehensive Safety Action Plan

2024

BETA

BRPC

Berkshire Regional Planning Commission

ACKNOWLEDGMENTS

Berkshire Regional Planning Commission

Nicholas Russo, Senior Transportation Planner
Clete Kus, AICP, Transportation Program Manager
Anuja Koirala, AICP, Principal Transportation Planner
Ryan Griffis, Transportation Planner

Advisory Committee

Nicholas Russo, BRPC
John Boyle, MPO - North Central
Eammon Coughlin, Adams (North Subregion)
Chris Klem, MassDOT OTP
Gordon Bailey, MPO - Southeast
Dept of Public Services, City of Pittsfield
Brent Lefebvre, City of North Adams/ Fire Department
Joshua Barber, FHWA

BETA Group, Inc.

Jeff Maxtutis, Project Manager
Anna Sangree, AICP, RSP, Transportation Planner
Austin Pszenny, Traffic Engineer

TABLE OF CONTENTS

1 EXECUTIVE SUMMARY

What is a Comprehensive Safety Action Plan?

This document lays out a Comprehensive Safety Action Plan for Berkshire County's streets and roads. Funding to develop this plan was provided by the United States Department of Transportation's Safe Streets and Roads for All (SS4A) grant program, under the Bipartisan Infrastructure Law. Matching funds were provided by the MassDOT Office of Transportation Planning. The Berkshire Regional Planning Commission is the receiver of the grant funds and the manager of the Action Plan development project. This Action Plan is published under the new Berkshire STEPS Initiative (the Safe Travel and Equity Plan for our Streets).

The STEPS Action Plan lays out the goal of zero traffic deaths and serious injuries in Berkshire County by the year 2040, also known as Vision Zero. Some communities and regions may refer to these plans as Vision Zero (VZ) plans or Local Road Safety Plans (LRSP). To realize this goal of zero, this Action Plan was developed using historical crash data for Berkshire County and future predictive analysis using the characteristics of roads and intersections in the county. This resulted in a High-Injury Network (HIN) being mapped throughout the county, which allows us to find the most important locations for safety improvements.

Based on the types of crashes found and the factors that were determined to contribute to their causes, the Action Plan recommends the highest-priority locations and effective countermeasures to reduce the crashes at these locations. Countermeasures may be construction projects or public programs to support safety around the region.

How to read through this plan

This document is broken into 9 chapters, over 3 parts. Readers can more quickly navigate between these parts and chapters to find the information they need.

Part 1: Plan Background and Need

Part 2: Safety Analysis

Part 3: Project and Policy Recommendations

How was the plan developed?

This Action Plan was developed over the course of 2024 with technical assistance provided by BETA Group, Inc. The process began with a safety analysis of the last five full years of crash data available from the Massachusetts Department of Transportation (MassDOT) online database. The last five full years available are 2018-2022. Over 12,000 crashes were analyzed in total. Of these, 2,300 were identified as causing injury: 241 of which were serious, and 64 were fatal. Development of the Action Plan was also informed by other regional and statewide plans such as the state Strategic Highway Safety Plan and the Berkshire Regional Transportation Plan.

Public engagement helped the planning team to paint a more detailed picture of the safety issues in the region. Opportunities for in-person and virtual engagement were offered in the summer of 2024, along with an online survey. Staff also formed an Advisory Committee to represent the views of different regions of the county. Finally, municipal stakeholders representing several communities around the county also engaged with staff to give direct feedback on findings reported for their communities. A public-facing dashboard of the crash data and High-Injury Network is also available at www.berkshiresteps.org. This dashboard visualizes the data used in preparing

the Action Plan, and allows user input to flag additional opportunities. Public review and comment for the draft Action Plan was offered during the month of November 2024, and comments were incorporated into the final plan. More information can be found in Chapter 3: Public Engagement.

An analysis of equity was performed to determine how the benefits of the Action Plan will be distributed through the region. Equity determinations were made using the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Environmental Justice mapper, meeting EPA criteria, which include Income, Racial Minority, and Limited English Proficiency. MassDOT's Regional Environmental Justice Plus (REJ+) criteria and the USDOT Justice40 Climate and Economic Justice Screening tool were also used to fully map the areas of Berkshire County that may benefit most from future safety investments. If a serious injury or fatal crash occurred in an EJ or REJ+ designated Census tract, it was given an additional 50% scoring weight in the HIN. Learn more in Chapter 8: Equity Analysis.

Serious injury and fatal crashes involving vulnerable road users were identified as part of the analysis. Vulnerable users are identified as people walking, biking, rolling, and anyone outside of a vehicle such as maintenance workers. Vulnerable users were prioritized by assigning an additional 1.5 points for each person involved in a serious injury or fatal crash per location.

Recommended countermeasures are also provided in the Action Plan. Countermeasures are specific actions that can be taken which have a predicted reduction in crashes, based on before-and-after data gathered from past projects. The countermeasures are scored using numeric crash modification factors (CMFs), which inform planners what the expected reduction in crashes at a location would be if the countermeasure is implemented. A toolbox of Proven Safety Countermeasures can be found in Chapter 6. No countermeasure will eliminate all crashes. The Safe Systems approach utilized by the SS4A program will apply multiple strategies to eliminate the fatal and most serious crashes in Berkshire County over time.

What resulted from the plan?

Information reported from the Action Plan will help progress the Berkshires toward the Vision Zero goal. The STEPS Initiative is expected to be a long-term program to keep the public invested in reaching zero deaths and serious injuries. The two major products resulting from the Action Plan development are the High-Injury Network and the Recommended Projects and Programs.

High Injury Network

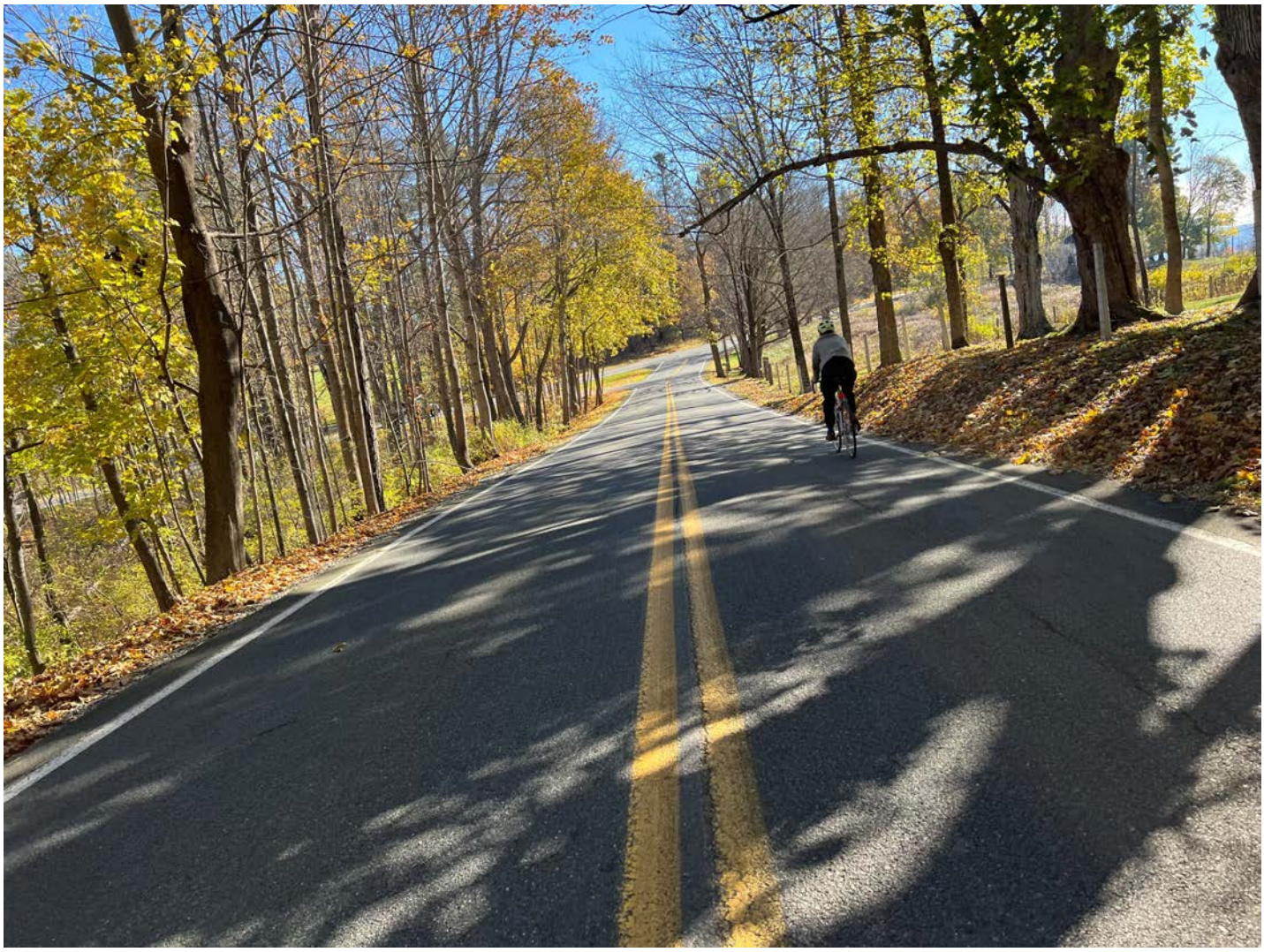
The HIN is the result of the crash analysis and predictive modeling used to identify the roads and intersections most at risk for deaths and injuries. More information about how the HIN was built can be found in Chapter 4. The final network was also informed by public input by adding extra weight to sites that were highlighted from public feedback and appeared in the crash analysis. Using the top 50 locations that were ranked in the final HIN, a recommended list of projects and programs was developed to inform future investments.

Recommended Projects & Programs

Fifty top recommended intersections and roads are identified in the Action Plan. They can be found in Chapter 7: Strategies and Projects. The top 10 include locations in Pittsfield, Lenox, North Adams, and Williamstown. The projects recommend countermeasures to address several types of crashes including angle, sideswipe, head-on, rear-end, and vulnerable road users (VRUs) such as pedestrians and cyclists. Additionally, regional policies and strategies that invest in safety education, enforcement, and encouragement are recommended in Chapter 7.

Future Progress and Reporting

The Berkshire STEPS Initiative will be a living program that keeps the public informed of the progress toward the Vision Zero goals in a transparent way. This Action Plan, and any future updates or revisions will be posted publicly online at www.berkshireplanning.org and www.berkshiresteps.org. A hard copy may be requested for a fee by contacting the Berkshire Regional Planning Commission. An annual update of the progress on Vision Zero goals, specifically traffic fatalities and serious injuries, will be shared with interested stakeholders through an agenda item with the Metropolitan Planning Organization (MPO). The public will also be informed of additional initiatives such as Implementation activities and public participation such as a Vision Zero committee. Visit www.berkshiresteps.org to learn more.



PART 1

PLAN BACKGROUND AND NEED

This first part of the Safety Action Plan gives an introduction to the SS4A program, an overview of the planning process and a summary of the feedback collected as part of the public engagement period. The purpose of this section is to outline the goals of the plan and set the stage for the deeper analysis.

2 INTRODUCTION

What is a Safety Action Plan?

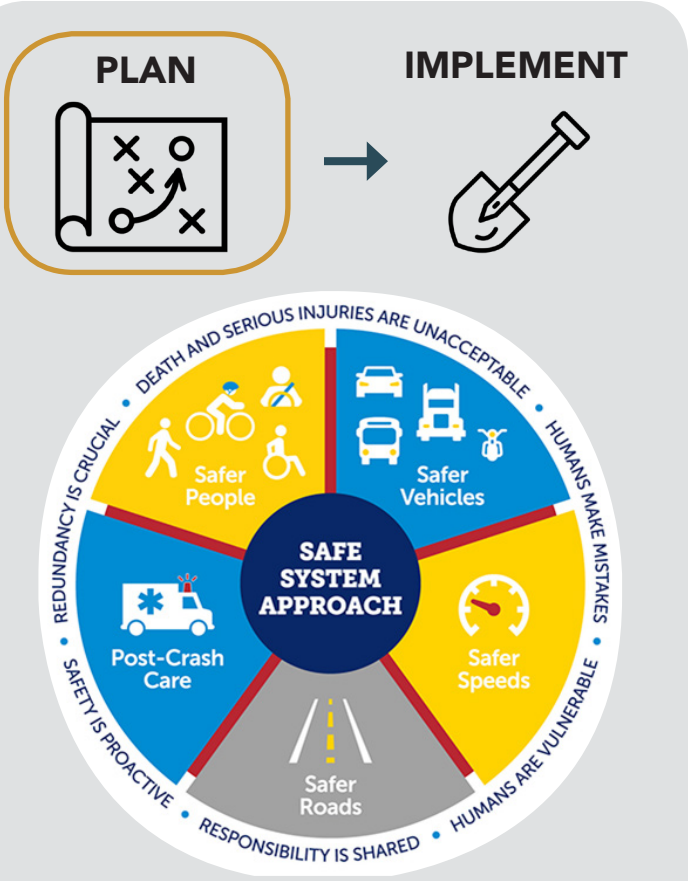
In 2021, the Bipartisan Infrastructure Bill established the Safe Streets and Roads for All (SS4A) program which funds regional planning initiatives aimed at reducing serious and fatal injuries on roadways within the United States.

The SS4A grant program centers on a Safe System Approach that recognizes:

- Death and serious injuries on our roads are unacceptable.
- People make mistakes.
- Responsibility is shared.
- Safety is proactive.
- Redundancy is crucial.

The Berkshire Regional Planning Commission (BRPC) received a SS4A planning grant in 2023 to develop a Safety Action Plan, which is a roadmap for specific actions and policies the region can implement to reduce roadway deaths and serious injuries. The plan enables communities across the Berkshires to apply for implementation funding provided through the SS4A program to design and construct recommendations outlined in the Safety Action Plan.

Every Safety Action Plan through the SS4A grant program must include the eight key components, outlined below. BRPC's Safety Action Plan, named STEPS **S**afe **T**ravel and **E**quity **P**lan for Our **S**treets, includes all required components, with some modifications to the chapter order.

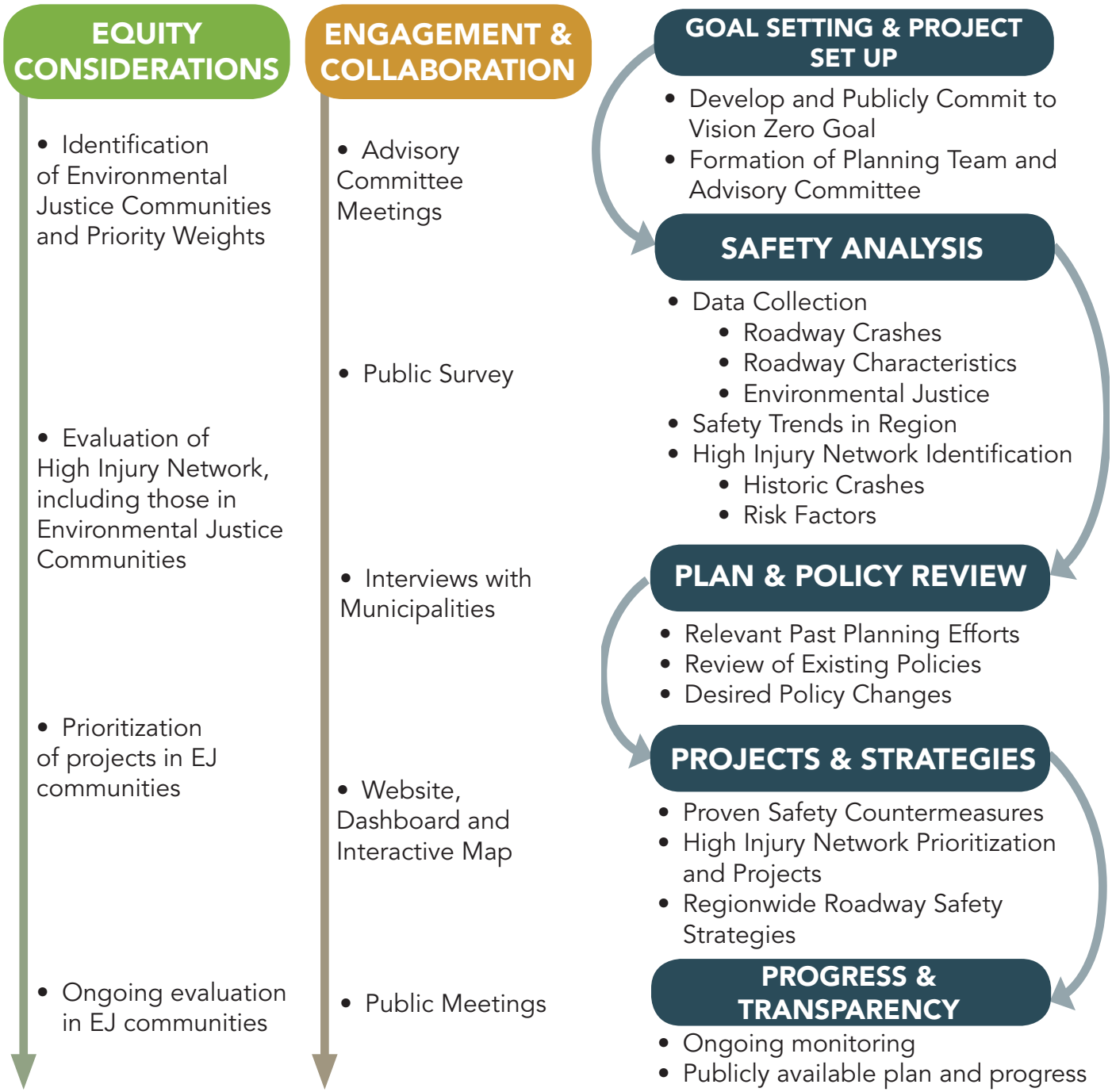


COMPONENTS OF A SAFE STREETS FOR ALL (SS4A) SAFETY ACTION PLAN

- **Leadership Commitment & Goal Setting**
- **Planning Structure**
- **Engagement & Collaboration**
- **Safety Analysis**
- **Equity Considerations**
- **Policy & Process Changes**
- **Strategy & Project Selection**
- **Progress & Transparency**

Planning Process

BRPC began the planning process by convening the planning team and forming an advisory committee comprised of key stakeholders in the Berkshires to guide the planning process through key decision points. BRPC also developed a Vision Zero goal - an anticipated date to strive for zero fatal and serious crashes in the Berkshires. The team then conducted a safety analysis identifying key crash characteristics and high crash clusters, conducted a review of relevant past plans and policies, and created recommendations for specific policies, projects, and strategies to be implemented towards achieving the Vision Zero goal. Throughout the planning process, BRPC focused on equity considerations and engagement of the public and stakeholders from BRPC communities.



The Berkshires' Planning Context

The Berkshires is comprised of 32 communities in Western Massachusetts. The communities across the Berkshires vary greatly in their density, size, residential populations and community character. While the City of Pittsfield is a moderately dense urban community with an economically and racially diverse population, smaller towns like Savoy and Florida are defined primarily by their rural character, sparsely settled areas, and natural resources. Many towns, like Lenox, Great Barrington, and West Stockbridge, have small commercial town centers, attracting both residents and visitors, while other parts are less populated. North Adams still has hallmarks of its industrial past in the roadway network, and Williamstown is a college town frequented by residents, visitors, and students. As such, the roadways across the Berkshires vary greatly based on the nearby land use and the way people choose to get around, ranging from walkable commercial areas to strip mall developments and country roads.

QUICK FACTS ABOUT THE BERKSHIRES

Total Population: 128,763

Average Population Density: 139 people/mi^2

Percent People of Color: 15%

Percent No-Vehicle Households: 9%

Percent of People Over 65: 24%

Percent of People Under 18: 16%

Source: 2020 Decennial Census, ACS 5 Year Estimates 2022

The STEPS Safety Action Plan seeks to identify and address safety concerns and high crash areas on the wide variety of Berkshire roadways, focusing on areas that have historically been disadvantaged and areas with vulnerable roadways users - people walking, biking or rolling.

Main Street in Great Barrington (Urban Character)

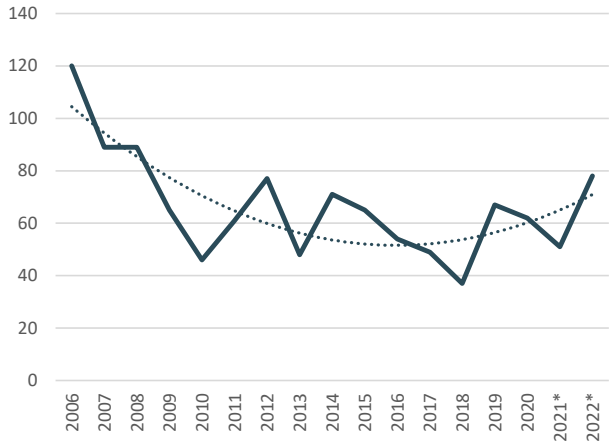

Route 2 in Florida (Rural Character)

The Roadway Safety Problem

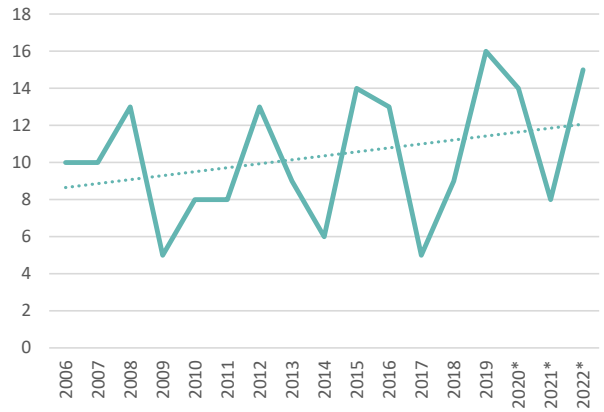
In recent years, roads across the United States have seen an increase in crashes resulting in injuries and death. When a community member is hurt or killed while using our roads, this causes grief to families and loved ones and generally impacts all residents in the perception of roads as unsafe. This is particularly true when it comes to people using our roads to walk, bike or roll, who lack protection in the event of a crash. The chart below shows traffic fatalities in the European Union (E.U.), other developed comparison countries, and the United States. While fatal crashes have been steadily declining in the E.U., more people are dying in roadway crashes year after year in the United States.

Fatal and serious crash trends in the Berkshires follow the United States trends. The number of serious injury crashes was trending downwards between 2006 and 2016, but has begun trending upwards again. **Between 2018 and 2022, 20% of fatal and serious injury crashes involved someone walking or biking, compared to 1% of all crashes.** Generally, crashes involving someone walking or biking have consistently been trending upwards over the past 15 years. When people feel unsafe walking or biking, this has the possibility to foster social isolation and less interaction with the community and roadways.

Serious Injuries in Berkshire Region 2006-2022

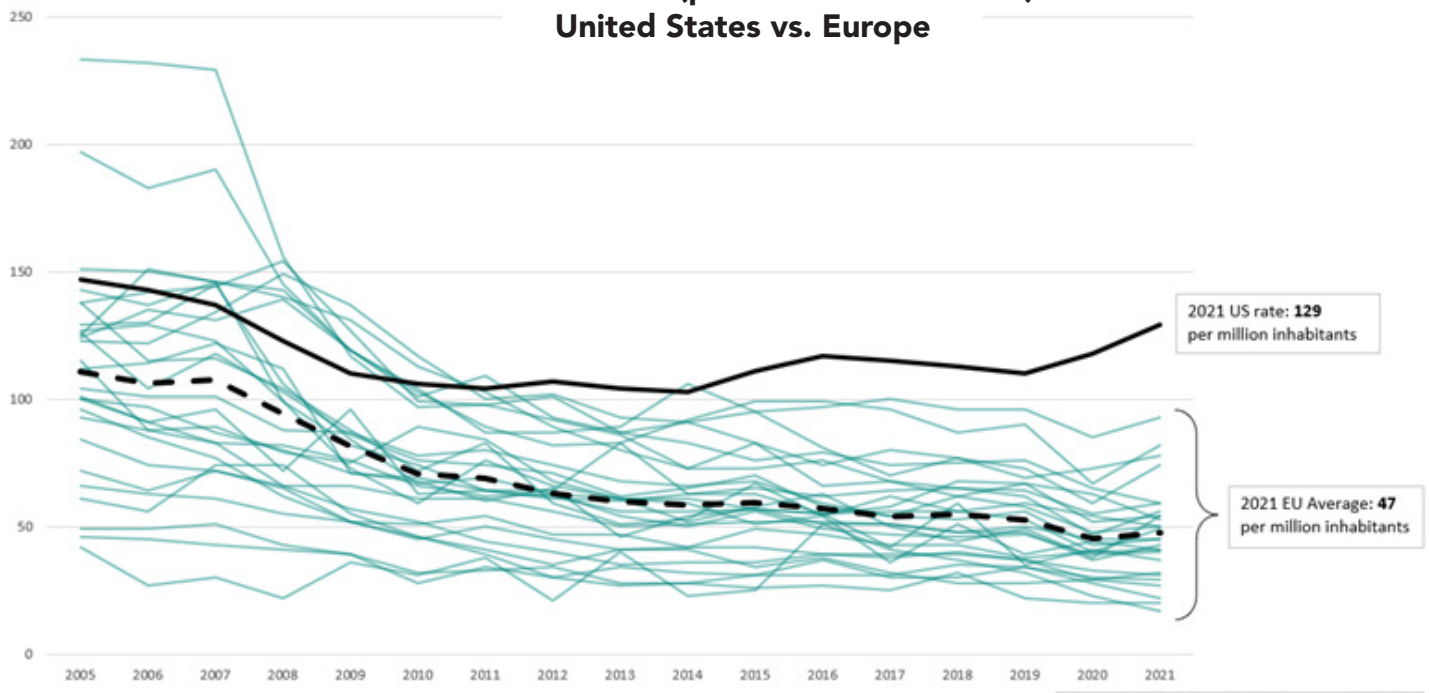


Non-Motorist Serious and Fatal Injuries 2006-2022



Source: MassDOT Impact

Traffic Fatalities (per million inhabitants) United States vs. Europe



Source: UNECE Sustainable Transport Division

A Vision Zero Goal for the Berkshires

In line with the Safe System Approach, Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. Vision Zero emphasizes that just one traffic death is unacceptable and the pain and suffering associated with just one roadway death is preventable.

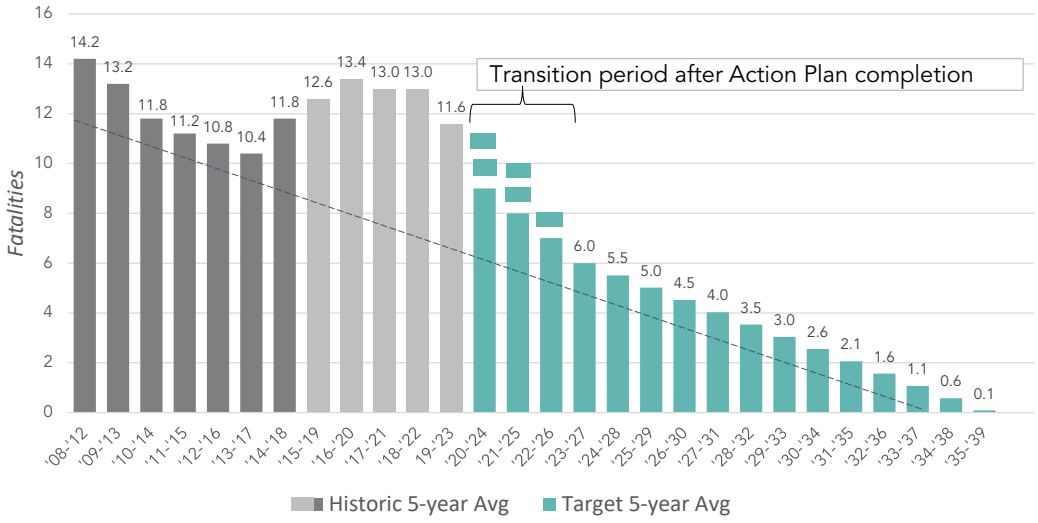
The Berkshire Regional Planning Commission and the Berkshire Region MPO recognize the importance of reducing traffic crashes and have publicly committed to a goal to achieve zero roadway deaths and serious injuries by the year 2040.

"Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all."
- Vision Zero Network

The Berkshire Region MPO has set a goal to achieve zero roadway deaths or serious injuries by the year 2040.

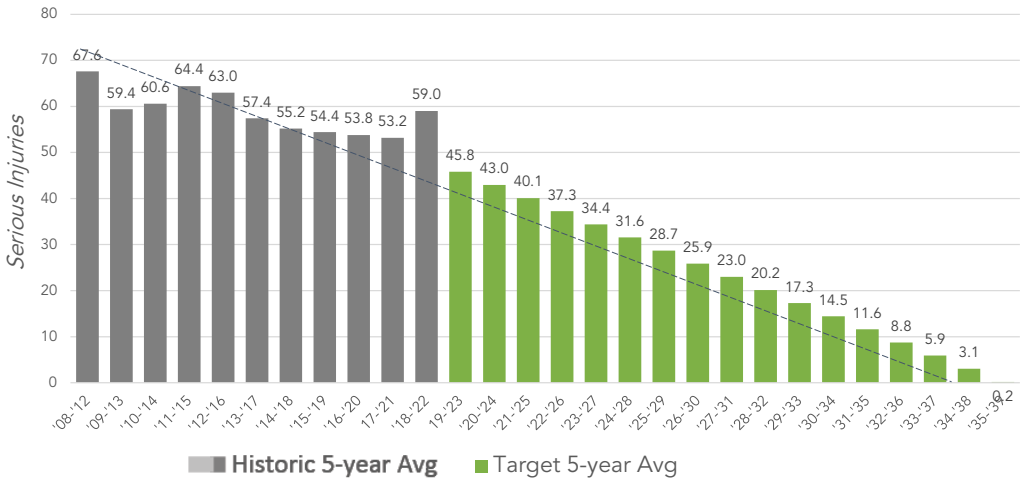
Vision Zero Projection | Berkshire Fatalities 5-year average

Historic and projected to meet a goal of zero fatalities in a concrete timeframe



Vision Zero Projection | Berkshires Serious Injuries 5-year average

Historic and projected to meet a goal of zero serious injuries in a concrete timeframe



3 ENGAGEMENT & COLLABORATION

Gathering Input

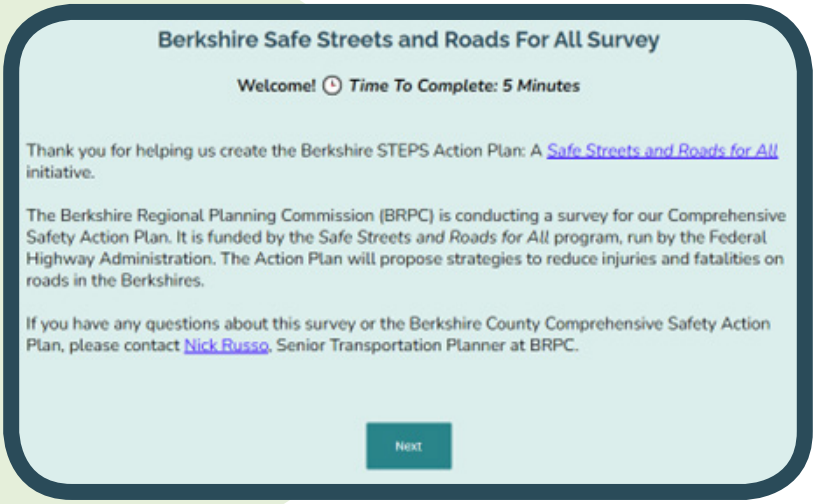
At the heart of a plan that serves the community are community voices. To gather feedback from the community, the Comprehensive Safety Action Plan team conducted a robust engagement process including an online survey, public meetings, municipal interviews, and an online website and interactive map.

The Engagement and Collaboration chapter identifies:

- Engagement methods used to gather input from the public and stakeholders
- Key safety concerns heard throughout the engagement process
- Overview of specific locations described by participants in the engagement process

ONLINE SURVEY

BRPC created a survey at the beginning of the planning process to gather feedback from Berkshire residents on roadway safety in the region. The survey asked questions about people's travel habits and modes of getting around, preferred roadway safety strategies, opinions on driver contributing factors to crashes including distraction, and desired safety improvements in their community. The survey received around 200 responses from residents across the region. The highest represented communities in the responses were Great Barrington, North Adams, and Pittsfield.

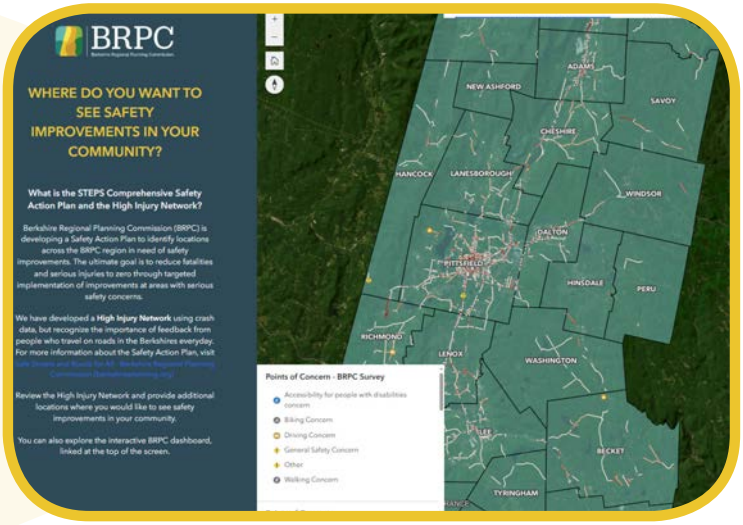


PUBLIC MEETINGS

Public meetings were held during the planning process first to gather information on safety issues and locations of concern, and second to present the draft report and recommendations. To collect information on safety issues and locations, the planning team held three separate meetings, in the northern, central, and southern regions of the Berkshires. The meetings included a presentation on the draft high injury network and safety trends in the Berkshires, followed by discussion and interactive activities where attendees drew locations on maps and answered short questions about roadway safety on boards. The meeting in Dalton included Spanish interpretation and translation. The second public meeting period included a meeting in Pittsfield on 11/6/2024 where the draft report was presented. The public offered feedback on the top priority projects and policies.

WEBSITE, DASHBOARD AND INTERACTIVE MAP

A website provided residents and stakeholders with information about Vision Zero and the SS4A program. The website linked to a project dashboard where the community could see statistics on crashes in each of the Berkshire County communities and an interactive map where the community could explore the draft high injury networks, and place additional locations and comments on a map.



STAKEHOLDER MEETINGS

After developing a data-driven draft high injury network, the project team requested meetings with the larger communities in the Berkshires to get an understanding of recent safety projects underway in each community and any additional priority locations. The team met with representatives from Becket, Lee, Pittsfield, and Richmond through the process.

ADVISORY COMMITTEE MEETINGS

The Advisory Committee, made up of representatives from BRPC, FHWA, MassDOT, the Berkshire MPO, Pittsfield, North Adams, and Adams, held their first meeting at the beginning of the planning process to discuss the purpose of the SS4A Safety Action Plan, determine the leadership commitment and goal setting for zero fatalities and serious injuries, and conduct preliminary equity mapping. The advisory committee met during the planning process to kick off the plan, to offer input on the high injury network methodology and to finalize the plan.

Safety Concerns

The Comprehensive Safety Action Plan seeks to identify and address key safety issues within the Berkshires. The planning team through the engagement process heard an abundance of safety issues that people are concerned about in the region. Key themes that arose throughout were speeding, distracted or impaired driving, unsafe conditions for people walking, biking and taking transit, unsafe conflicts at intersections and poor pavement condition.

Common concerns described by municipal staff and residents

- Speeding
- Crosswalk conflicts & accessibility
- Red light running
- Distracted driving
- Drunk and Impaired Driving
- Visibility & Sight Distances
- Lacking Stop Sign Compliance
- Lack of bike lanes, paths, and sidewalks discourage walking and biking
- Poor pavement condition
- Tailgating
- Dark light conditions
- Road departures
- Poor pavement marking condition

89% of survey respondents are at least moderately **concerned about distracted driving**

"Cars drive TOO FAST through downtown areas and blast through crosswalks." – survey respondent

All towns interviewed noted **speeding** as a major concern. Most also mentioned vehicles **not stopping at crosswalks**.

The Town of Richmond emphasized **impaired driving** on rural roads and high speed rural **road departure crashes into poles** and trees as key issues.

Several attendees at the Dalton Public Meeting noted feeling **unsafe biking**, especially when bike lanes end at intersections or are next to high speed traffic.

Preferred Types of Safety Improvements

As part of this Comprehensive Safety Action Plan, safety countermeasures to reduce serious and fatal injury crashes are proposed. Community members and municipal officials are already thinking about different options for reducing crashes, heard through the interviews, public meetings and survey. The plan takes into account the types of treatments discussed by the community.

Countermeasures heard from municipal staff and residents

Speed Management

- Enforcement
- Traffic calming, including speed humps and narrowing roadways
- Roundabouts
- Road diet
- Speed feedback signs
- Lower speed limits

Intersection Safety

- Clear signage and signals
- Clear sight lines
- Conversion from 2-way to 4-way stop
- Roundabouts
- No right on red
- Dedicated left turn arrows

Pedestrian and Bicycle Safety

- Permanent bus stops, not flag stops
- Expanded and connected sidewalks
- Bike paths and bike lanes
- More and safer crosswalks, including raised crosswalks, improved signage, rapid rectangular flashing beacons (RRFBs), shorter crossing distances
- Road diet
- Curb extensions
- High-intensity activated crosswalk (HAWK) signals
- Leading Pedestrian Intervals (LPIs)

Road Departure

- Clear roadway pavement markings, especially in dark or rainy conditions
- Utility Pole relocation from side of road
- Enforcement of distracted or impaired driving

Other

- Pavement maintenance
- Public Education on Safer Driving
- Penalties for unsafe driving, like license suspension
- Encourage mode shift to safer modes

"Improve road condition, increase law enforcement, expand number of sidewalks and bike lanes" – survey respondent

"Make people slow down and pay attention more" – survey respondent

Attendees at the Dalton public meeting discussed the importance of **driver education and penalties for unsafe driving**, like license suspension.

Pittsfield city officials are considering safety enhancements such as roundabouts, curb extensions, bike lanes and pedestrian upgrades. Pedestrian upgrades considered include leading pedestrian intervals, which give pedestrians a head-start crossing the street when walking at the same time as vehicles, and rapid rectangular flashing beacons (RRFBs) that pedestrians can press to have flashing lights while crossing the street. The city recently constructed a roundabout at the Tyler Street and Woodlawn Avenue intersection and is designing bike lanes and raised crosswalks as part of an intersection improvement project at First and North Streets.

Roundabout at Tyler Street and Woodlawn Avenue (Source: NearMap)

Specific Locations in Need of Safety Improvements

Through the development of the high injury network, a thorough crash analysis was conducted. In addition, community feedback is incorporated into the plan to better understand the user experience of intersections and roadways in the region and make sure no key locations are missed.

"The rate of speed in neighborhoods such as East Street are ridiculous. We have many families with small children, and I am afraid for their safety constantly. " – survey respondent

"Extend Ashuwillticook trail into and through North Adams." – survey respondent

"A roundabout at Hodges Cross Road by Walmart" – survey respondent

"On West Street near Dorothy Amos Park, add a button with flashing pedestrian crossing lights! I believe 2 people have been killed near there." – survey respondent

Locations identified by participants at the Public Meeting in Dalton

PART 2

SAFETY EVALUATION

The focus of the Safety Action Plan is the identification of key crash types and locations through analysis of historic crash data and roadway risk factors. The safety evaluation part of the report outlines key findings from the safety analysis and locations identified as part of the high injury network, as well as provides context on existing safety plans and policies in the Berkshires and best practices in safety, relevant to the region. The section builds on the findings of the public engagement to inform the recommendations presented in Part 3: Project and Policy Recommendations.

4 SAFETY ANALYSIS

The goal of the safety analysis chapter is to identify historic crash trends and high crash clusters across the Berkshires. The analysis informs what types of safety policies and countermeasures make the most sense in the region and which intersections and roadways are most in need of safety improvements.

The analysis examines historic crashes by severity from 2006-2022 to understand the general change in crashes over the years, but the analysis focuses more heavily on the most recent available five years of crash data from 2018-2022. All crash information was collected from the MassDOT Impact Portal, the roadway crash database for the Commonwealth of Massachusetts. The analysis of safety trends includes all roads in the Berkshires, including interstates, but high crash clusters are not identified on interstates.

Between the years 2006 and 2022, the Berkshires has seen an overall decrease in the number of crashes resulting in a serious or fatal injury, however; the majority of the decrease occurred between the years 2008 and 2012. Since 2018, the region has seen a modest uptick in crashes resulting in serious or fatal injury, highlighting a worrying trend away from past progress.

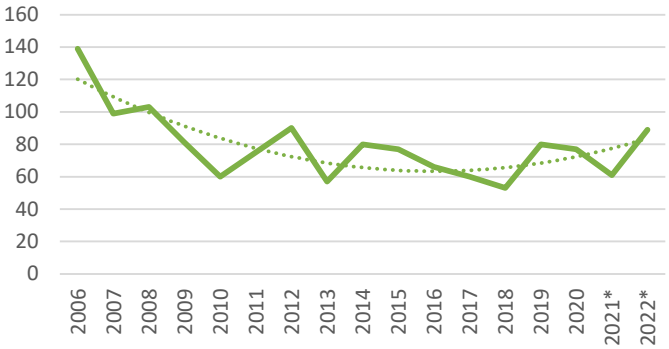
Between 2018-2022, 21 percent of crashes resulted in an injury, slightly less than Massachusetts as a whole (24%). Of the injury crashes, 241 crashes resulted in a serious injury and 64 crashes resulted in a death to a person involved in the crash - around 2 percent of all crashes, comparable to statewide percentages.

Of all crashes, the most common types of crashes in the region are single vehicle crashes (34%), rear-end crashes (24%) and angle crashes (18%). The high number of single vehicle crashes reflects the rural nature of many roadways in the Berkshires. The diversity of crash types reflects the diversity of roadway types in the region, from commercial areas where more people walk to large intersections with many angle and rear-end crashes to rural country roadways.

The Safety Analysis chapter identifies:

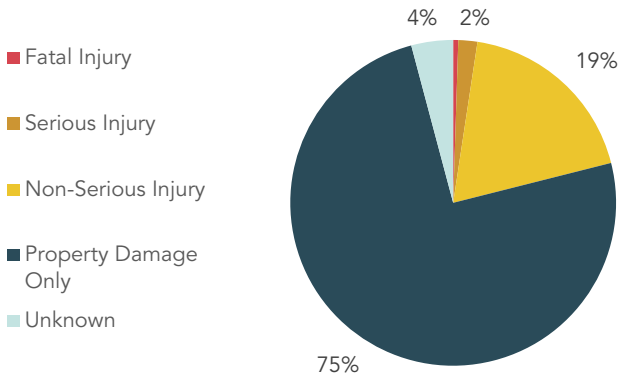
1. Common roadway crash characteristics and trends
2. Contributing factors to crashes, including environmental and roadway characteristics and human behaviors
3. Specific high injury and high risk intersections and segments

Serious and Fatal Crashes 2006-2022

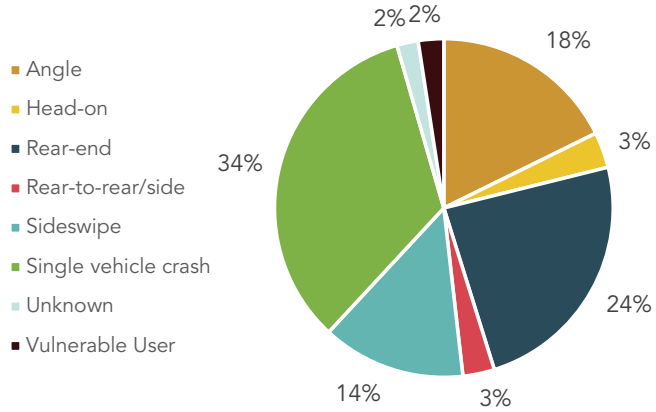


*data provided to MPO by MassDOT in March 2023, not finalized

Crash Severity 2018-2022



Crash Types 2018-2022

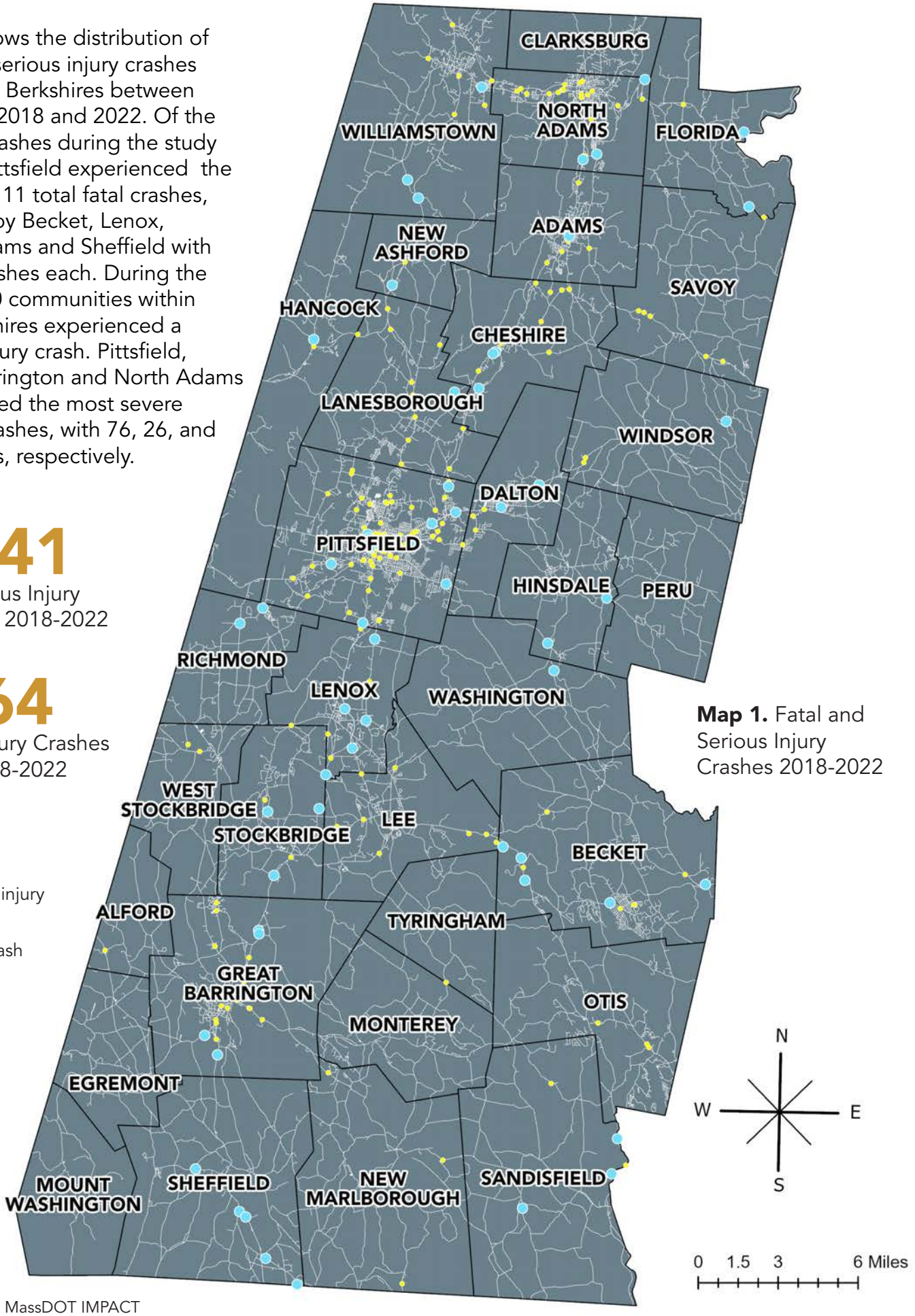


Source: MassDOT IMPACT, includes interstates

Map 1 shows the distribution of fatal and serious injury crashes across the Berkshires between the years 2018 and 2022. Of the 64 fatal crashes during the study period, Pittsfield experienced the most with 11 total fatal crashes, followed by Becket, Lenox, North Adams and Sheffield with 5 fatal crashes each. During the period, 20 communities within the Berkshires experienced a serious injury crash. Pittsfield, Great Barrington and North Adams experienced the most severe injuries crashes, with 76, 26, and 19 crashes, respectively.

241
Serious Injury Crashes 2018-2022

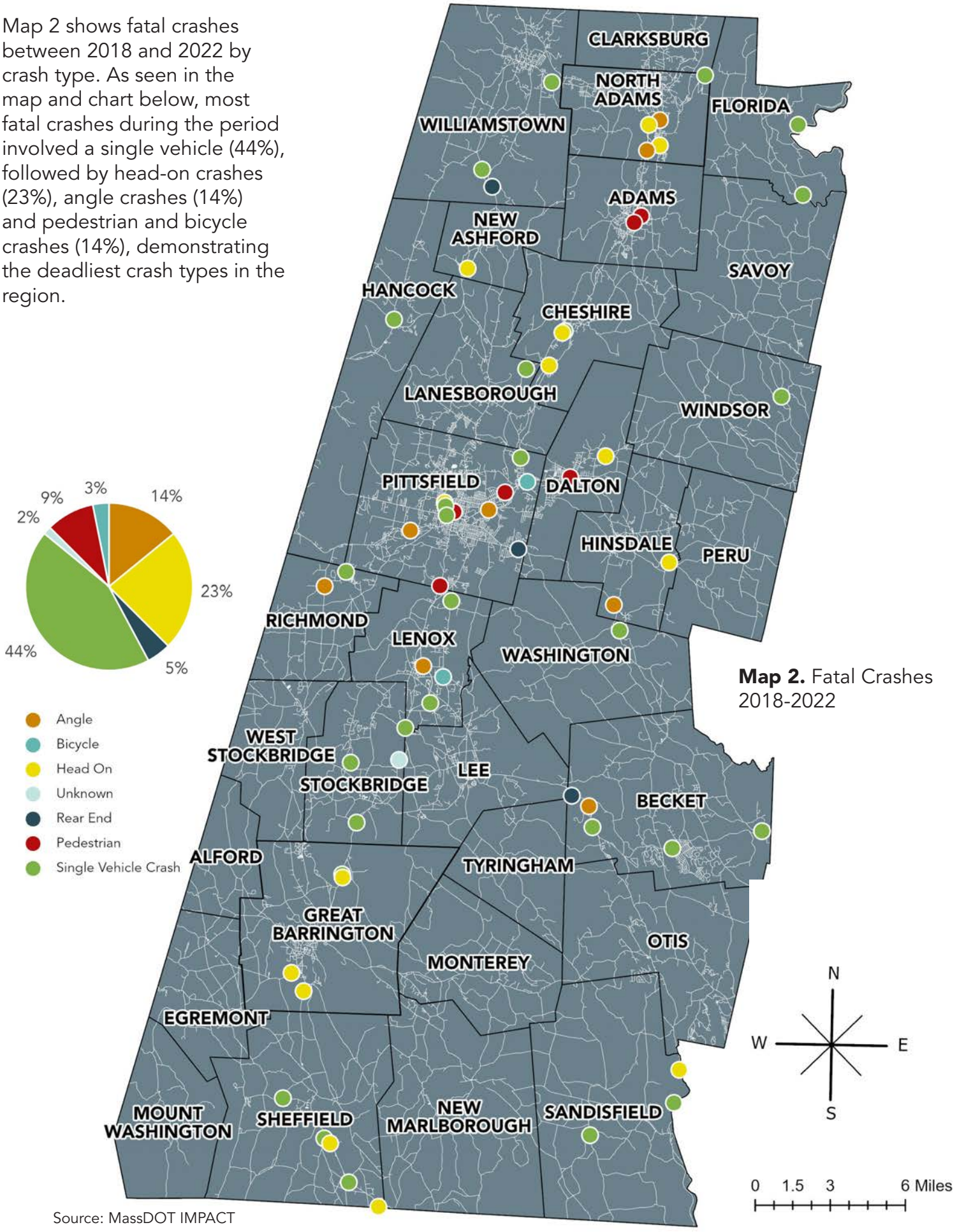
64
Fatal Injury Crashes 2018-2022



Map 1. Fatal and Serious Injury Crashes 2018-2022

Source: MassDOT IMPACT

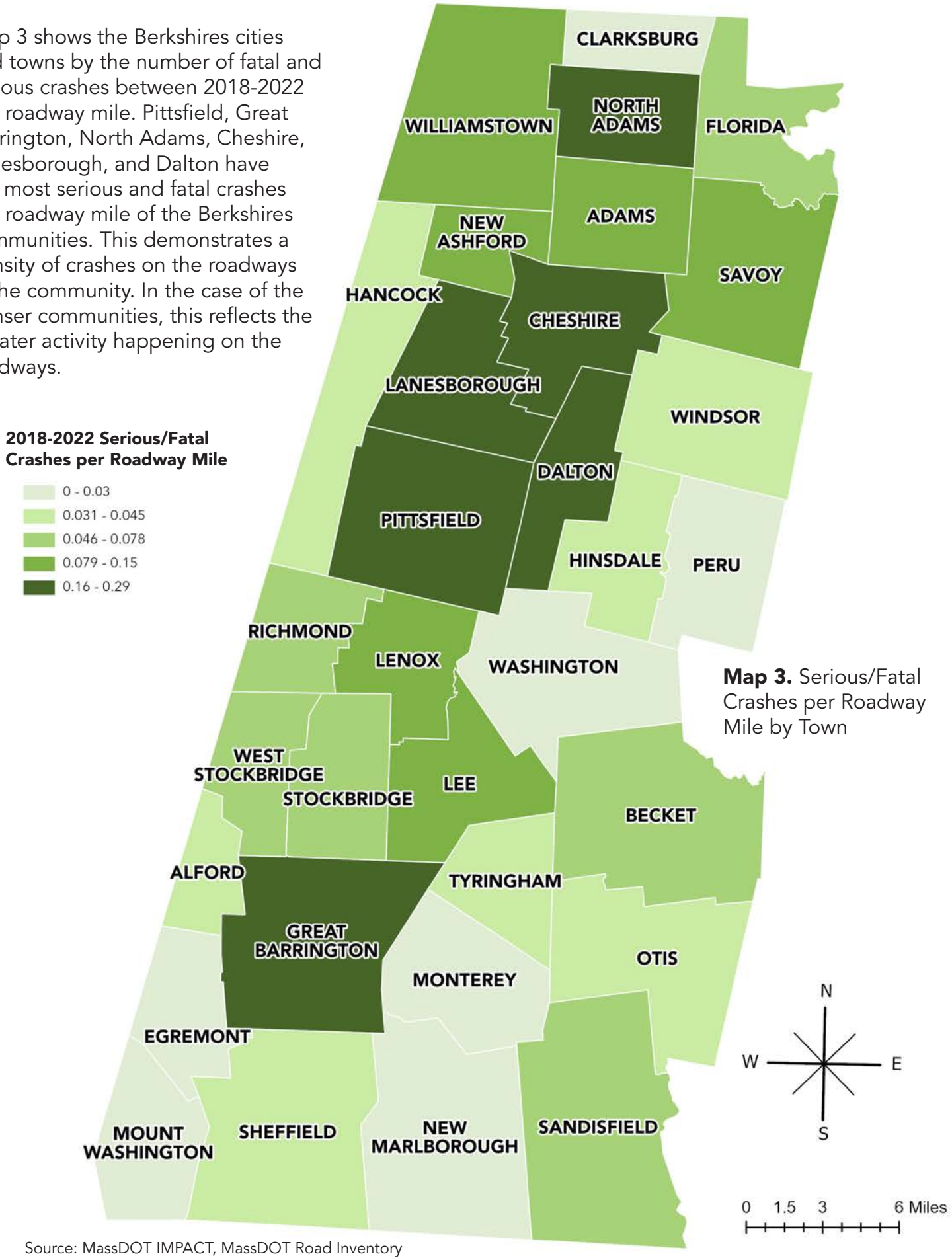
Map 2 shows fatal crashes between 2018 and 2022 by crash type. As seen in the map and chart below, most fatal crashes during the period involved a single vehicle (44%), followed by head-on crashes (23%), angle crashes (14%) and pedestrian and bicycle crashes (14%), demonstrating the deadliest crash types in the region.



Map 2. Fatal Crashes 2018-2022

Source: MassDOT IMPACT

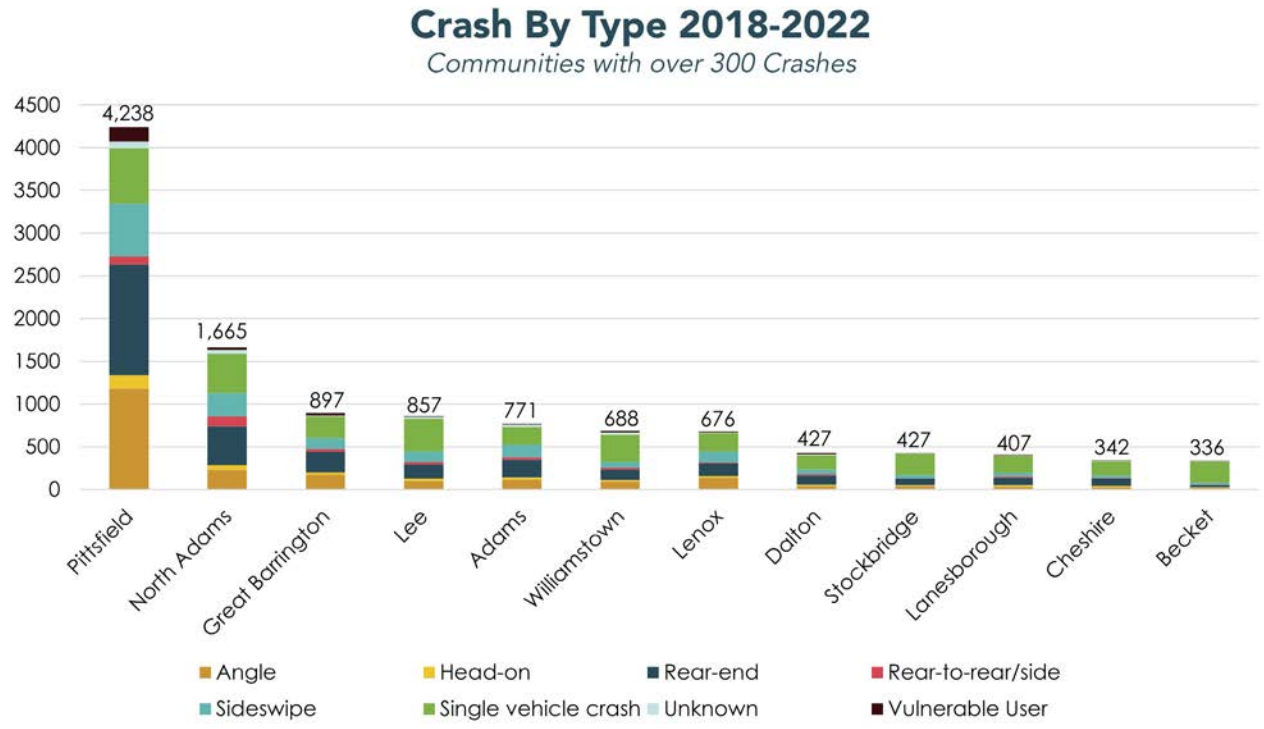
Map 3 shows the Berkshires cities and towns by the number of fatal and serious crashes between 2018-2022 per roadway mile. Pittsfield, Great Barrington, North Adams, Cheshire, Lanesborough, and Dalton have the most serious and fatal crashes per roadway mile of the Berkshires communities. This demonstrates a density of crashes on the roadways in the community. In the case of the denser communities, this reflects the greater activity happening on the roadways.

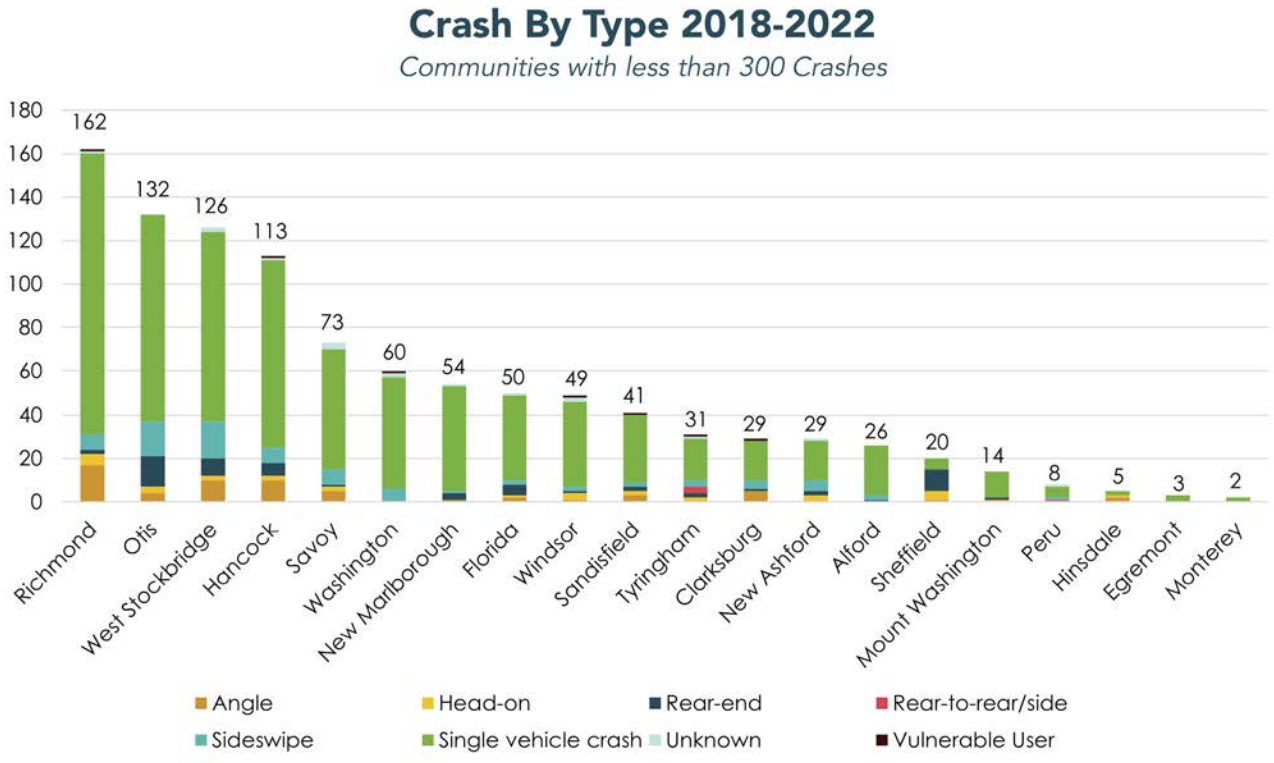


Map 3. Serious/Fatal Crashes per Roadway Mile by Town

Source: MassDOT IMPACT, MassDOT Road Inventory

Municipalities across the Berkshires vary in the types of crashes occuring on their roadways. The denser communities experience more crashes between multiple vehicles and people walking and biking, while the more rural communities primarily experience single vehicle crashes with obstructions on or within the roadway. The charts below show how Pittsfield, North Adams, Great Barrington, Lee, Adams and Lenox see a mix of angle crashes, rear end crashes, sideswipe, and crashes with people walking and biking while places like RIchmond and Otis have far more crashes involving just one vehicle.





Source: MassDOT IMPACT

Fatal and Serious Injury Crash Characteristics

Summary of Over-Represented Crashes

Recognizing some crash types are more likely to result in a serious or fatal injury, the safety analysis includes a test of proportions or over-representation analysis comparing all roadway crashes to just fatal and serious injury crashes during the study period. The over-representation analysis looked at a variety of factors including roadway factors (e.g. speed limit and roadway jurisdiction), environmental factors (e.g. lighting and weather conditions), crash types (e.g. vehicle-pedestrian crash, single vehicle crash), and driver contributing factors (e.g. speeding, failure to yield).

Below is a summary of the key findings from the over-representation analysis, examining crashes 2018-2022. **The abbreviation "KSI" is used to describe crashes where someone was Killed or Seriously Injured.** The most over-represented crashes are motorcycle crashes, comprising 2% of all crashes and 21% of serious and fatal injury crashes. Next are vehicle-pedestrian crashes, comprising just 1% of all crashes and 15% of serious injury and fatal crashes. This finding underlines the need for safety improvements that protect people travelling outside vehicles. Vehicle-bicycle crashes were also over-represented, comprising 1% of total crashes and 5% of serious and fatal injury crashes.

Drivers operating vehicles recklessly/erratically or going over the speed limit were other key contributing factors over-represented in fatal and serious crashes. 5 percent of all crashes involved a driver operating the vehicle in an reckless manner and 19% of fatal and serious injury crashes.

Speed Limit 40-50 MPH
20% of total crashes vs. **30% of KSI crashes**

Operating Vehicle Recklessly
5% of total crashes vs. **19% of KSI crashes**

Vehicle - Pedestrian Crash
1% of total crashes vs. **15% of KSI crashes**

Crash with Tree or Pole
10% of total crashes vs. **20% of KSI crashes**

Motorcycle Crash
2% of total crashes vs. **21% of KSI crashes**

State-Owned Roadway
31% of total crashes vs. **36% of KSI crashes**

Head-On Crash
3% of total crashes vs. **11% of KSI crashes**

Failed to Keep in Lane
6% of total crashes vs. **11% of KSI crashes**

Vehicle - Bicycle Crash
1% of total crashes vs. **5% of KSI crashes**

Low-Light Conditions
31% of total crashes vs. **35% of KSI crashes**

Driver Impairment
2% of total crashes vs. **9% of KSI crashes**

The Year 2020
17% of total crashes vs. **22% of KSI crashes**

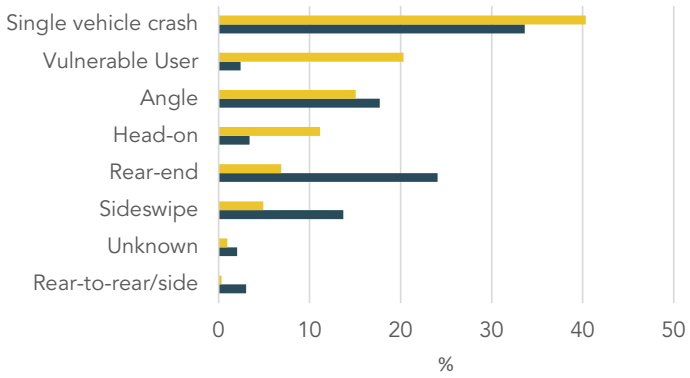
Source: MassDOT IMPACT

Crashes involving a single vehicle colliding with a tree were over-represented, representing 24% of fatal and serious crashes and just 10% of all crashes.

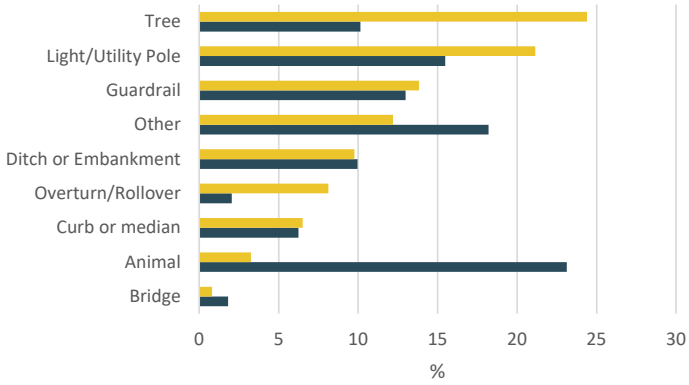
The tables below offer detail on the over-representation analysis and methods for identifying over- and under- represented crash types and contributing factors. The tables include crash type, single vehicle crash type, vulnerable user crash type, lighting conditions, weather conditions, roadway jurisdiction, driver contributing circumstances, speed limit, crash year and crashes by roadway type.

In the charts, if the yellow bar is longer than the blue bar, it indicates the percentage of crashes resulting in a fatal or serious injury is greater than the percentage of all crashes. Some notable under-represented crash types include rear-end crashes, sideswipe crashes, crashes with an animal, crashes in the snow or freezing rain, and crashes on roadways with a speed limit of 25 or 30 MPH.

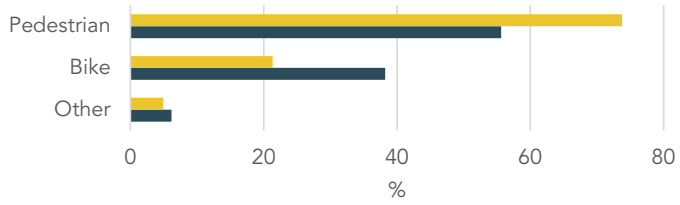
Crash Type



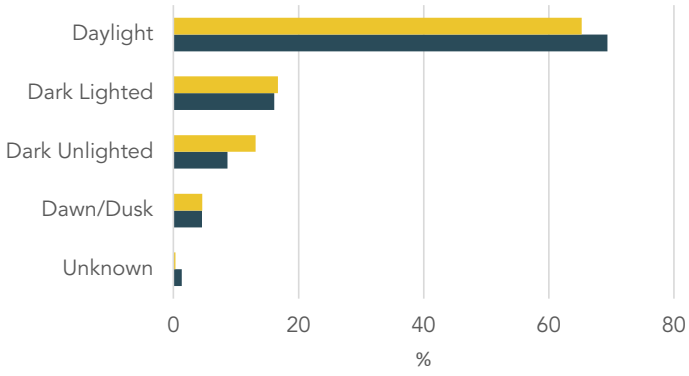
Single Vehicle Crashes



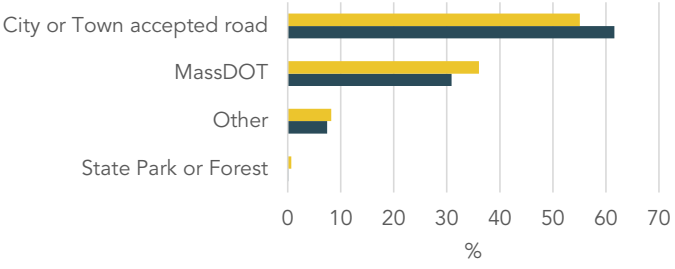
Vulnerable User Type



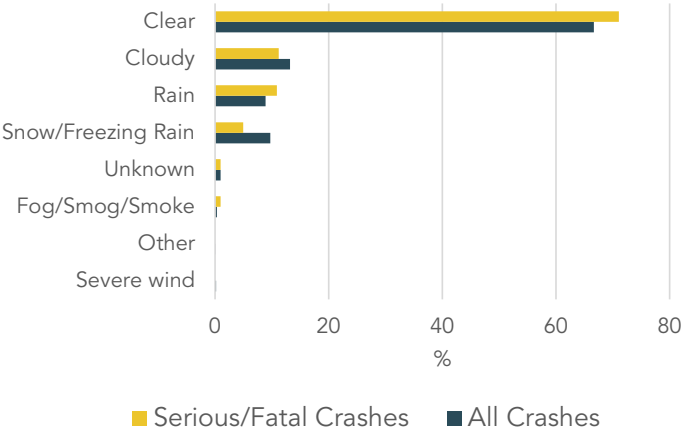
Crash Lighting Conditions



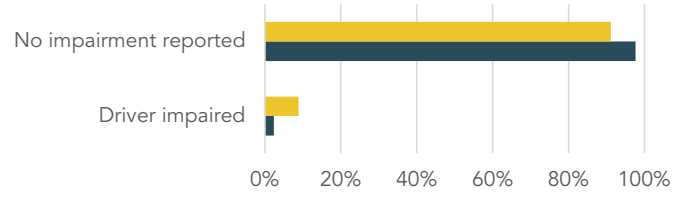
Road Jurisdication



Crash Weather Conditions

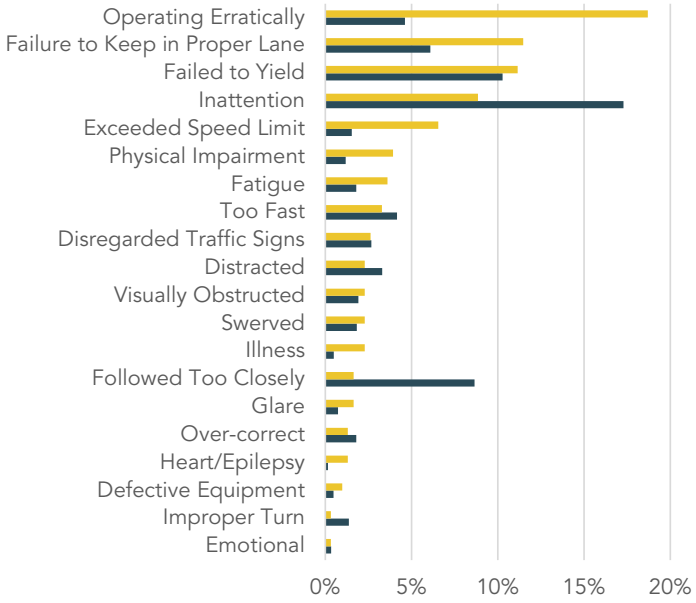


Driver Impairment (Drugs or Alcohol)

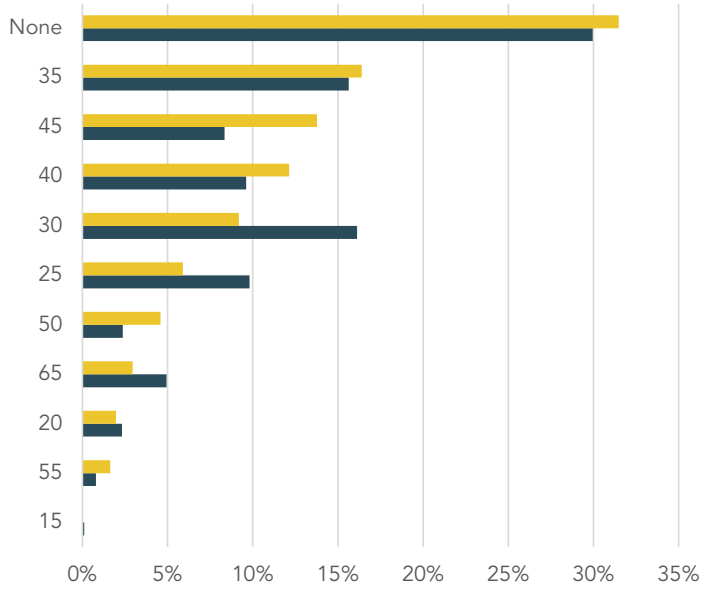


Source: MassDOT IMPACT

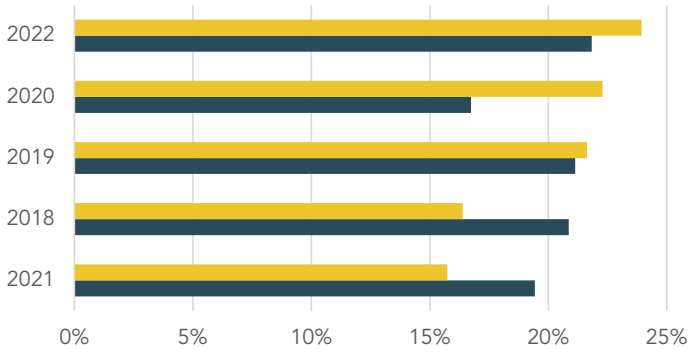
Driver Contributing Circumstance



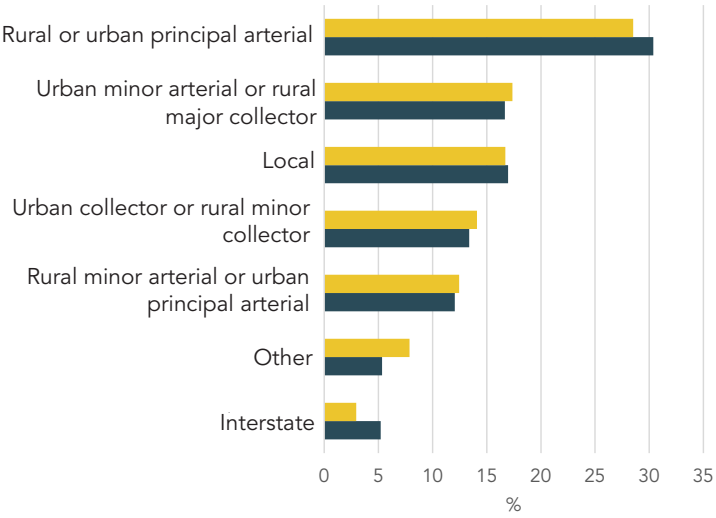
Speed Limit



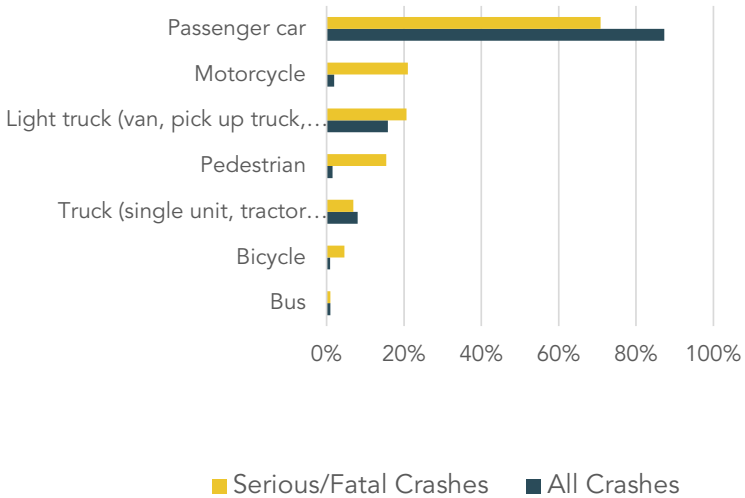
Year



Crashes by Roadway Type



Road User



Age

People aged 15-25 make up **15%** of the total population (according to the American Community Survey 2022 5 Year Estimates)

and **22%** of fatal and serious crashes.

Source: MassDOT IMPACT

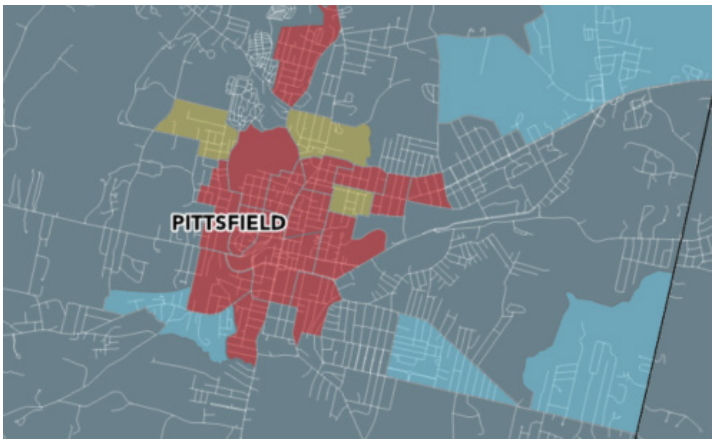
High Injury Network - Historic Crash Trends

The development of the high injury network is a critical part of the Safety Action Plan. The high injury network is a selection of intersections and roadway corridors with either (a) a history of past crashes resulting in injury or (b) high risk roadway characteristics likely to result in future crashes. The incorporation of not only past crashes, but also high risk features seeks to be both reactive and proactive towards improving roadway safety.

The first high injury network component, intersections and segments prioritized based on historic crashes, was developed using an ArcGIS based model that linked crash point locations to roadways and intersections. Then the roadways and intersections were given a severity score based on the severity of linked crashes. The crashes were linked to roadways and intersections by putting a 150 foot buffer around intersections and a 50 foot buffer around roadway segments, then linking the crashes within the buffers to the segments and intersections.

Recognizing the importance of prioritizing people outside vehicles most in danger of injury from a crash, the analysis also gave additional weight to crashes where a vulnerable road user (e.g. someone walking or biking) was injured.

The analysis further prioritized underserved neighborhoods (environmental justice communities) with higher populations of people of color, lower income families and residents with limited English proficiency by weighting these communities higher.



Environmental justice block groups in Pittsfield. Low-income (blue), people of color (yellow), and both (red). Source: 2020 EJ Layer from MassGIS

SEVERITY SCORE

Vulnerable user crash: 1.5 pts each
Non-serious injury crash: 1 pt each
Serious injury crash: 5 pts each
Fatal injury crash: 15 pts each

x 1.5 if in an **EJ Community**

INPUTS	PROCESS	OUTPUTS
Roadway Segments (MassDOT Road Inventory 2022) **Roadway Crashes** (MassDOT Impact Portal 2018-2022) **EJ Communities** (MassGIS EJ Layer 2020) **Intersections** (Derived from MassDOT Road Inventory 2022)	**1.** Identify the crashes occurring at each segment and intersection **2.** Identify whether an intersection or segment is in an EJ area **3.** Create a severity score for each segment and intersection based on crash characteristics	High Injury Network - **Segments** High Injury Network - **Intersections**

Top Regional Intersection

Curran Memorial Hwy & Hodges Cross Rd, North Adams

The top location identified through the analysis is in North Adams at the intersection of Curran Memorial Highway and Hodges Cross Road with 16 injury crashes, two serious injury crashes, and one crash with a pedestrian between 2018-2022. The intersection is also located in an environmental justice block group, and received a total severity score of 41.25 points.

Shown in the map below, several top locations were located in Pittsfield including the intersection of Fenn Street and First Street (score of 40.5), and the intersection of Columbus Avenue and North Street (score of 38.25). Fenn Street and First Street had four crashes involving a vulnerable road user and Columbus Avenue and North Street had a fatal crash.

16 injury crashes

2 serious injury crashes

1 crash with pedestrian

Selection of High Injury Segments and Intersections in Downtown Pittsfield. The darker colors represent higher injury intersections and segments.

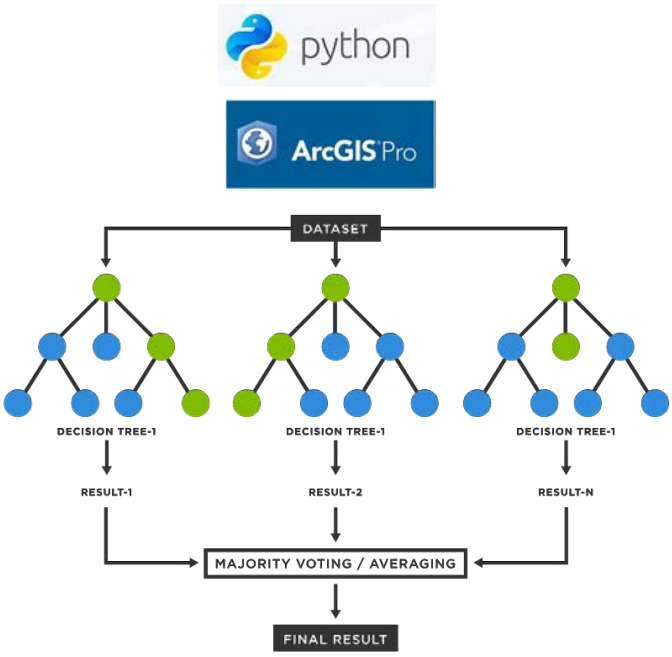
High Injury Network - Roadway Risk

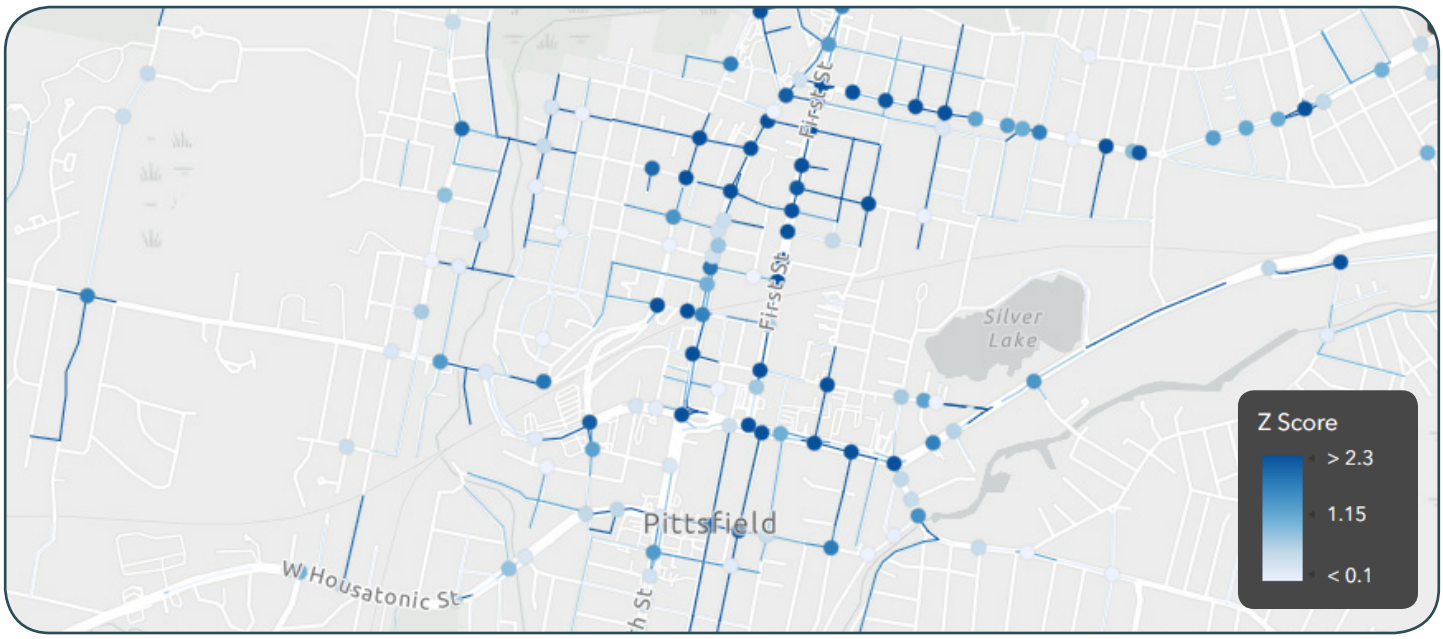
The second component of the high injury network identification is the risk-based analysis. The goal of risk-based analysis is to understand what roadway characteristics are correlated with high crash locations and to then use this information to predict locations at risk for future serious or fatal injury crashes. Risk-based prediction models were first initialized in ArcGIS Pro, and the Random Forest Regression model was chosen as the machine learning model for risk-based prediction. Crash data for the Berkshires was used to train the random forest model, which then learned the correlation between high-risk road features and top intersection and corridor locations.

The results of the risk-based analysis include risk-based top intersection and top corridor maps. The scores of intersections and corridors indicate the predicted score that the location is expected to receive each year. Additionally, intersections and corridors contain risk-based Z-scores, which indicate how the location compares to all locations in the Berkshires. For the purposes of mapping, only locations that are identified in the top 50% of high-risk locations (Z-score greater than 0) have been included in the risk-based maps. Often, intersections and segments flagged through the risk based analysis have an existing history of crashes.

HIGH RISK ROADWAY FEATURES

- Speed Limits
- Average Daily Traffic
- Surface Width
- Functional Classification

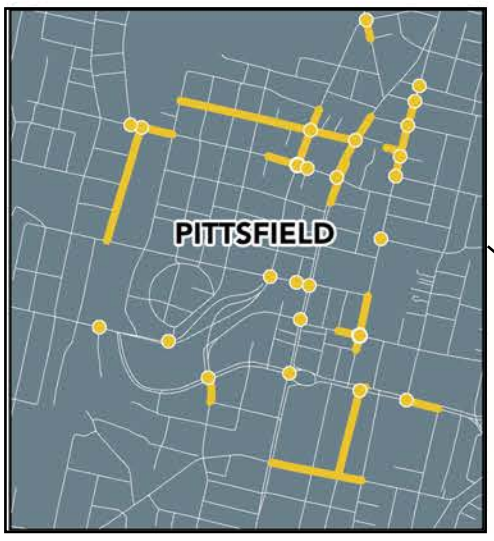




High Injury Network

Combined Top Regionwide and Town Locations

The combined high injury network adds together the risk and historic crash scores, includes any recent fatal crashes that have occurred since 2022 from MassDOT Impact and provides a 25 percent weight for locations highlighted by public participants and municipalities. The combined locations inform the projects described in further detail in Chapter 7.



Top 50 Regional High Injury Network

- Intersections
- Corridors

Top 3 Locations by Town

- Intersections
- Corridors

CLARKSBURG
WILLIAMSTOWN
NORTH ADAMS
FLORIDA
ADAMS
NEW ASHFORD
SAVOY
HANCOCK
CHESHIRE
LANESBOROUGH
WINDSOR
DALTON
PITTSFIELD
HINSDALE
PERU
RICHMOND
LENOX
WASHINGTON
WEST STOCKBRIDGE
STOCKBRIDGE
LEE
BECKET
TYRINGHAM
ALFORD
GREAT BARRINGTON
MONTEREY
OTIS
EGREMONT
MOUNT WASHINGTON
SHEFFIELD
NEW MARLBOROUGH
SANDISFIELD

N
W
E
S

0 1 2 4 Miles

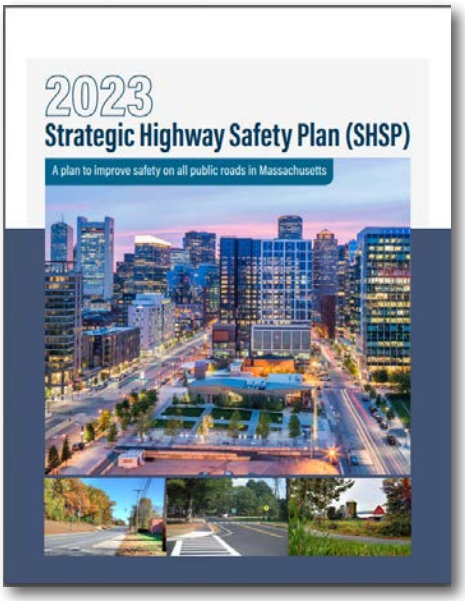
Map 4. Combined High Injury Network

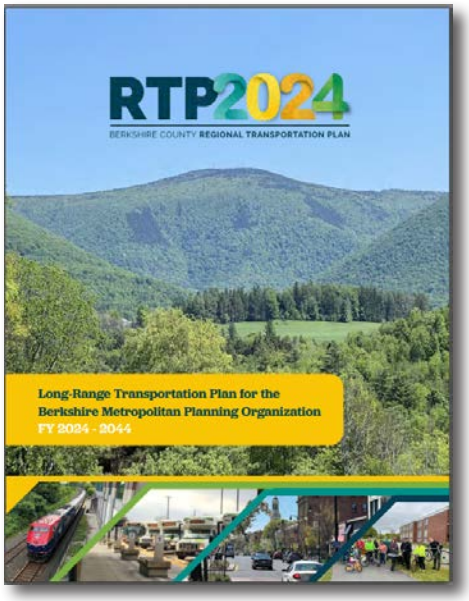
5 POLICY & PROCESS REVIEW

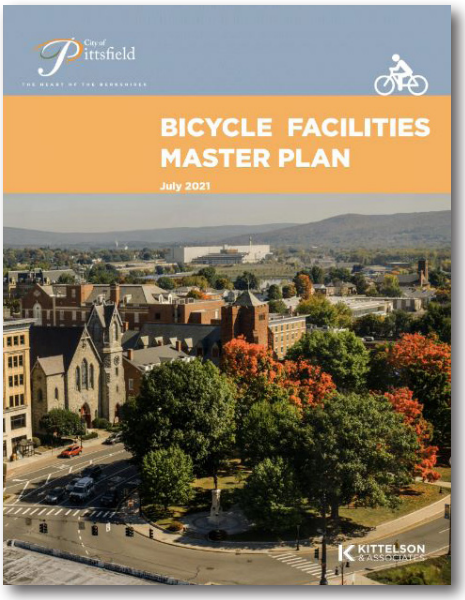
This current Safety Action Plan builds on other planning efforts and policy development in the Berkshires aimed at improving roadway safety. To best offer recommendations for improvements to the policies and processes in the region, this chapter aims to understand past recommendations that have been developed through previous planning efforts both statewide and in the region, and any existing relevant policies. The review of existing plans and policies informs the strategies outlined in the Strategies and Projects section of the Safety Action Plan.

The Policy and Process Review chapter:

- Summarizes previous relevant planning efforts relevant to roadway safety in the Berkshires
- Identifies existing policies that support roadway safety.
- Informs strategies described in the Strategies and Projects chapter







Previous Planning Efforts

Plan	Goal	Relevant Recommendations
Statewide Bicycle and Pedestrian Transportation Plan and Update, 2021	Roadmap to make walking and biking a safe, comfortable and convenient mode for everyday travel	Provide safe options for people to conduct 0-3 mile trips on a bicycle and half mile or less trips safely while walking. Include infrastructure investments in the CIP that advance conditions for people walking and biking.
Massachusetts Strategic Highway Safety Plan (SHSP), 2023	Approach to achieve zero roadway fatalities and serious injuries	Implement speed management, address top-risk locations and populations, affect change in vehicle design features and use, accelerate research, do what works, more pilot projects, and public education.
Massachusetts Vulnerable Road User Safety Assessment, 2023	Improve safety for vulnerable road users (people walking, cycling, or rolling)	Implement site specific projects, implement systemic projects (adequate walk time, NTOR, LPIs, and countdown), material procurement (ex. RRFBs, speed feedback radar signs), support top VRU communities to facilitate safer crossings, separated bicycle facilities and traffic calming.

Plan	Goal	Relevant Recommendations
Berkshire MPO Long Range Transportation Plan, 2024	Guide transportation investments in the Berkshires over the next 20 years	Implement a Berkshire County Comprehensive Safety Action Plan, report on changes to crashes, develop low-cost expandable traffic calming solutions, promote effective access management, continue road safety audits, improve crash reporting, promote bicycle and pedestrian infrastructure projects including trails and bikeways, crossings, and sidewalks.
Draft Town of Lenox Master Plan, 2021	Guide decision-making in Lenox over the next 10-20 years	Calm traffic in the village center, develop shared use paths, monitor crashes to identify intersections in need of redesign, install stationary speed feedback signs, add curb extensions, raised crosswalks, or other traffic calming on Walker Street, fill gaps in sidewalks, add bike lanes. Balance new infrastructure with rural character.
Town of Cheshire Master Plan, 2017	Guide decision making in Cheshire	Develop a Tier 2 Complete Streets plan, seek out ways to slow traffic, coordinate on shared use path projects, collaborate with regional and state agencies to get funding and move projects forward.
North Adams Vision 2030 Comprehensive Plan, 2014	Guide decision making in North Adams towards 2030	Ensure city priorities are represented on regional project lists, address challenges posed by Route 2 design and overpass, attract broader use of transit, encourage projects with a multimodal component, address areas with speeding, poor signage, and congestion.
City of Pittsfield Bicycle Facilities Master Plan	Provide a vision for a comfortable, safe, and connected bike network in Pittsfield	Provide steps for gradual bike network buildout (near, medium, and long term). Develop the proposed bicycle facility network including priority corridors, recommended corridors, short-term corridors, bicycle maintenance stations, and bicycle parking locations.
Town of Sandisfield Master Plan	Guide town decision-making in Sandisfield for the next 10-20 years.	Provide a complete and well maintained system of roads (develop a multi-year roadway spending plan, work to resolve road maintenance responsibility issues, plan for and address future roadway and bridge needs). Improve public and non-motorized transportation (adopt a long-term complete streets approach, more effectively accommodate bikes and pedestrians, and create better walking paths.
Public Infrastructure in Western Massachusetts: A Critical Need for Regional Investment and Revitalization	Estimate costs for infrastructure needs, highlight funding sources, propose models for funding project..	Provide additional funding and formula reforming to the Chapter 90 program. Increase funding and attention to repairing and replacing small bridges/ culverts.

Existing Policies and Programs

MassDOT Complete Streets Funding Program

The intent of the MassDOT Complete Streets Funding Program is to provide planning and construction funding to municipalities demonstrating a commitment to Complete Streets principles. Complete Streets are roadways that balance the needs of all road users, including people taking the bus, walking, using a wheelchair, biking, and driving. The program recognizes Complete Streets are often safer streets with more reliable public transport, and more efficient operations for all users.

The Complete Streets program through MassDOT requires municipalities first adopt a Complete Streets policy, then develop a list of prioritized complete streets projects, and then apply for construction funding. A few towns in the Berkshires have registered for the Complete Streets Funding Program but have yet to adopt a policy and plan. A number of Berkshire communities have adopted a Prioritization Plan but have yet to construct projects. As a part of this Safety Action Plan, strategies for encouraging municipalities to participate in the program are recommended.

COMMUNITIES WITH ADOPTED COMPLETE STREETS POLICIES

Adams
Becket
Cheshire
Clarksburg
Dalton
Egremont
Great Barrington
Hinsdale
Lanesborough
Lee
Lenox
North Adams
Otis
Pittsfield
Richmond
Sandisfield
Sheffield
Stockbridge
West Stockbridge
Williamstown

MassDOT Safe Routes to School Program

The MassDOT Safe Route to School program is a federally funded program that aims to increase safe walking, biking, and rolling activities among public elementary, middle, and high school students. The program encourages using active modes of transportation to get to to school through educational programs, improving infrastructure to schools, and providing safety training to students.

COMMUNITIES REGISTERED WITH SAFE ROUTES TO SCHOOL

Adams
Cheshire
Clarksburg
Dalton
Florida
Great Barrington
Hancock
Lee
Lenox
North Adams
Pittsfield
Sheffield
Williamstown

Existing Design Guidelines

MassDOT Highway Division Manuals and Publications

MassDOT provides guidance for construction specifications and details, as well as a variety other design guides and manuals, that serve to help project engineers, construction contractors, and others. These manuals provide guidance for the designing, building, and maintenance of roads and bridges in Massachusetts.

Separated Bike Lane Planning & Design Guide – 2015 MassDOT

The MassDOT Separated Bike Lane Planning & Design Guide provides guidance on applications of separated bike lanes as well as the design and configuration of bike lanes. This includes bike lane design through intersections and transit stops, guidance on necessary locations to add bike lane signalization, considerations for parking and landscaping, and many other features.

Guidelines for the Planning and Design of Roundabouts – 2022 MassDOT

The MassDOT Guidelines for the Planning and Design of Roundabouts guide provides key details to the planning, analysis, and design of roundabouts in communities. The guide includes key pointers on how to conduct public outreach for roundabout concepts, explains safety principles for roundabout design and outlines design principles such as inscribed diameter size, entry and exit widths, and accommodation for pedestrians and bicycles.

MassDOT Bridge Manual – Hundredth Anniversary Edition – April 2024 MassDOT

The MassDOT Bridge Manual is a standard document that aims to promote efficiencies in the design and construction of bridges in Massachusetts by providing uniform bridge design requirements, construction details, as well as pre-designing common bridge details. The manual also aims to share the knowledge that engineers in Massachusetts have accumulated from the design of bridges over the past 100 years and incorporate this knowledge into bridge design details with the goal of building long-lasting and safe bridges.

Manual on Uniform Traffic Control Devices for Streets and Highways 11th Edition – USDOT Federal Highway Administration – December 2023

The newly updated MUTCD (as of December 2023) provides standards for traffic signals, pavement markings, traffic signage, and many more traffic features, to ensure that states have consistent and safe infrastructure for public roadway users. The recent updates to the MUTCD have incorporated many changes to the way we design roadways to accommodate all users, with an exclusive section dedicated to the design and implementation of bike traffic signals.

NACTO Urban Street Design Guide

NACTO's Urban Street Design Guide provides guidelines for the design of roadways that emphasize the importance on providing spaces for all road users, such as pedestrians, bicyclists, and public transit users. The guide serves as a toolbox full of roadway and intersection design elements for making streets safer, more livable, and more economically vibrant.

Public Right-of-Way Accessibility Guidelines (PROWAG)

The Public Right-of-Way Accessibility Guidelines (PROWAG) provides standards to make streets, sidewalks, and transit stops accessible for users. This includes standards for accessible roadway design elements such as sidewalk ramps, sidewalks, pedestrian signals, transit stop infrastructure, shared use paths, and many more.

Accessible Pedestrian Signal Installation Policy – Effective June 2021 – MassDOT

MassDOT has created the Accessible Pedestrian Signal Installation Policy (APS) with the commitment of installing APS devices at all new traffic signals, at crosswalks, and at existing traffic signals when being redesigned or updated. APS's allows pedestrians who are blind or visually impaired know when the WALK interval at a traffic signal begins and ends through both audible and vibrotactile functions.

Project Development and Design Guide (PDDG) – Massachusetts Highway Department 2023

The purpose of the MassDOT Project Development and Design Guide is to define the project development process and guide the planning and design of transportation projects for the MassDOT Highway division. The guide is currently being updated from the previous 2006 version to incorporate process changes and guidance that have occurred since 2006. The purpose of the guide is also to provide designers and decision-makers with guidelines on how to incorporate multi-modal elements and context sensitive design into transportation projects.

The main sections of the guidebook which relate to safety are broken into the following:

Project Development – This section focuses on how transportation projects move through the design phase to the construction phase, which includes planning, design, environmental review, right-of-way assessments. This also includes strategies to assess projects after completion.

Basic Design – Outlines the guidelines on how all users will share roads safely at a variety of facilities. These include: intersections, interchanges, bridges, shared use paths, and intermodal facilities and rest areas. This section also includes the design of many other roadway elements such as alignments, landscaping, and accounting for drainage and erosion.

Design Standards – The design guide provides several chapters focused on design elements and traffic management strategies, including cross-section & roadside elements, intersections, shared use paths, access management, traffic calming and traffic management, and work zone management.

Plans, Specifications, and Cost Estimates – As in the chapter title, this section focuses on providing the outline for technical plans and specifications for designers and MassDOT officials that work on the design of transportation projects.

6 COUNTERMEASURES TOOLBOX

In recent years, the emphasis on roadway safety has resulted in an abundance of research and guidance on safety countermeasure effectiveness. Countermeasures aim to address specific crash types, but not every countermeasure works at every location.

Recognizing the unique needs of communities in the Berkshires, this plan identifies proven safety countermeasures that address the high injury crash types identified during the safety analysis - single vehicle crashes, angle crashes, head-on crashes, motorcycle crashes, pedestrian crashes and bicycle/scooter crashes.

Where applicable, countermeasure descriptions include information on crash modification factors (CMFs). CMFs provide an estimated reduction in crashes with the implementation of a countermeasure, based on the results of past studies. A CMF is the percentage of crashes that are expected to still occur after implementation of a countermeasure, so for example, a CMF of .15 would mean just 15% of crashes are expected to occur after implementation, or an

A **crash modification factor (CMF)** is the percentage of crashes that are expected to still occur after implementation of a countermeasure

PROVEN SAFETY COUNTERMEASURES REFERENCE RESOURCES

- Federal Highway Administration (FHWA) Proven Safety Countermeasures
- National Association of City Transportation Officials (NACTO) Urban Street Design Guide
- NACTO Urban Bikeway Design Guide
- MassDOT Separated Bicycle Design Guide
- CMF Clearinghouse
- Small Town and Rural Design Guide
- Manual on Uniform Traffic Control Devices (MUTCD)

Single Vehicle Crash Countermeasures

A **crash modification factor (CMF)** is the percentage of crashes that are expected to still occur after implementation of a countermeasure. Lower is better.

Speeding

Countermeasure	Estimated Cost	Crash Modification Factor
Narrow travel lanes	$75,000 per mile	0.76
Road Diet (4 to 3 lanes)	$1,000,000 per mile	0.53 - 0.81
Speed feedback radar signs	$16,000	0.95 (rural single vehicle crashes)

Edge of Road and Curve Visibility

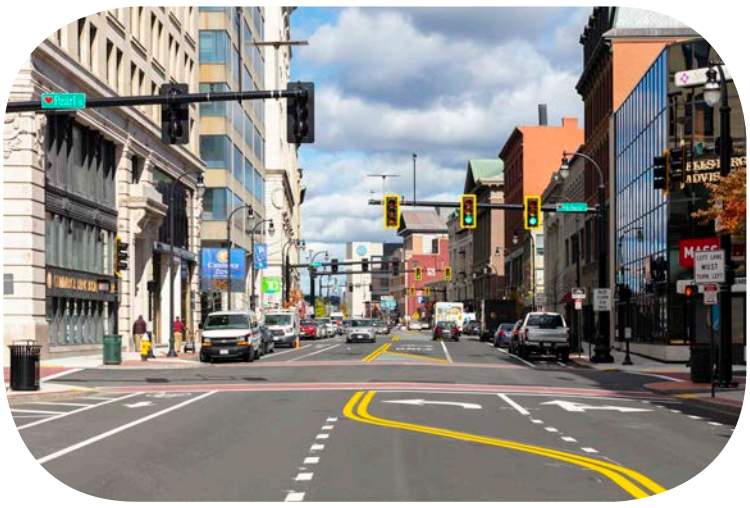
Countermeasure	Estimated Cost	Crash Modification Factor
Reflective edge lines (paint)	$6,500 per mile per lane line	0.85
Shoulder rumble strips	$10/foot	0.49-0.87 (run-off road, fatal and injury crashes)
Chevrons	$500/sign	0.84 (fatal and injury crashes)

Wet or Dark Conditions

Countermeasure	Estimated Cost	Crash Modification Factor
High Friction Surface Treatment	$280,000 per mile per lane	0.48 (wet road crashes)
Wet reflective pavement markings (thermoplastic)	$10,500 per mile per lane	0.88 (injury crashes)
Install lighting	$12,500 each	0.63 (injury crashes)

Obstructions on Side of Road

Countermeasure	Estimated Cost	Crash Modification Factor
Reflective object markers on utility poles, guardrails and posts on side of road	$50/each	NA
Relocate utility poles	$15,000/pole	0.86



4 to 3 lane road diet in Worcester, MA

Speed feedback radar sign

Angle Crash Countermeasures

Conflicting Turning Movements and Speeding

Countermeasure	Estimated Cost	Crash Modification Factor
Roundabout	$500,000 per roundabout	0.18-0.22 (severe crashes)
No Turn on Red	$500	NA
2-Way to 4-Way Stop	$3,000	0.25 (angle crashes)
Protected Left Turn Phasing	$15,000	0.67
Road Diet	$1,000,000 per mile	0.53-0.81
Access management (driveway closures, restricted movements)	Small project: <$100,000 Medium: $100,000-500,000	0.6-0.9
Advanced Stop Signs	$3,000	0.86
Flashing Beacon	$10,000	0.95

Red Light Running

Countermeasure	Estimated Cost	Crash Modification Factor
Yellow Change Interval Modification	$5,000	0.88
Backplates with retroreflective borders	$400 each	0.85
Red light running camera*	contractor typically installs free for a portion of citation revenue	varies

*as of the writing of this report, automated enforcement is not permitted in Massachusetts

Retroreflective backplates
(Source: FHWA)

Access management - driveway closure

Vehicle-Pedestrian Crash Countermeasures

Visibility

Countermeasure	Estimated Cost	Crash Modification Factor
Rapid Rectangular Flashing Beacon (RRFB)	$30,000	0.53 (pedestrian crashes)
Curb Extension at Crosswalk	$30,000 per extension	NA

Speeds

Countermeasure	Estimated Cost	Crash Modification Factor
Raised Crosswalks	$100,000/crosswalk	0.64
Raised Intersection	$250,000	NA
Speed Humps	$30,000/hump	0.6

Separation in Space and Time

Countermeasure	Estimated Cost	Crash Modification Factor
Leading Pedestrian Intervals (LPIs)	$5,000	0.40
Pedestrian Crossing Islands	$10,000 per island	0.44
Pedestrian Hybrid Beacons	$150,000	0.45
Sidewalks	$450,000/mile	0.11-0.45
Paved Shoulder	$900,000 per mile	0.29

Pedestrian Hybrid Beacons have been found to reduce vehicle pedestrian crashes by 55% (Source: FHWA).

Curb extensions shorten the pedestrian crossing distance and enhance visibility.

Vehicle-Bicycle Crash Countermeasures

Speeds

Countermeasure	Estimated Cost	Crash Modification Factor
Bicycle Boulevard	Varies depending on devices	0.37 (vehicle-bicycle crashes)
Raised bicycle crossing	$40,000	0.49 (vehicle bicycle crashes)

Separation

Countermeasure	Estimated Cost	Crash Modification Factor
Bike Lanes	$35,000 per mile	0.65 (vehicle-bicycle crashes)
Add bike lane separation	$65,000 per mile	0.57 (vehicle-bicycle crashes)

Bicycle Lane

Trails fully separated from traffic present fewer vehicle conflicts

Protected bicycle lane

Head-On Crash Countermeasures

Crossing Center Line

Countermeasure	Estimated Cost	Crash Modification Factor
Centerline rumble strips	$10/foot	0.56
Median Barrier	NA	0.03 (cross median crashes)

Centerline rumble strips (Source: FHWA).

Median Barrier

PART 3

PROJECT AND POLICY RECOMMENDATIONS

Moving from the safety evaluation into action steps, the project and policy recommendations part of this report outlines the key locations targeted for safety improvements and general strategies for improving safety across the Berkshires. The project and strategies are then evaluated for equitable distribution across Berkshire communities, particularly within underserved communities. The report finally outlines ways for BRPC to track progress towards the recommendations outlined in this report towards the eventual goal of zero fatal and serious crashes across the Berkshires.

7 STRATEGIES AND PROJECTS

The Strategies and Projects section turns the problem identification into concrete action steps for improving safety in the Berkshires by merging all the crash analysis, proven countermeasures, and community input.

Top projects were developed by merging high injury network locations close to each other into combined projects, and then reprioritizing the projects based on the crash severity, risk scores, environmental justice characteristics and community input. Crashes were attached to intersections on 150 foot buffers and to segments on 100 foot buffers, to capture intersections also along the segments.

For each project, the types of injury crashes, and specifically fatal and serious injury crashes, were identified to assist with the targeted countermeasure selection for each location. Both the top 50 projects in the region, as well as the top projects for each municipality, are identified. Preliminary recommended countermeasures were identified for each of the top 50 projects in the region. In Appendix C of the report, projects identified as top municipal safety projects are listed.

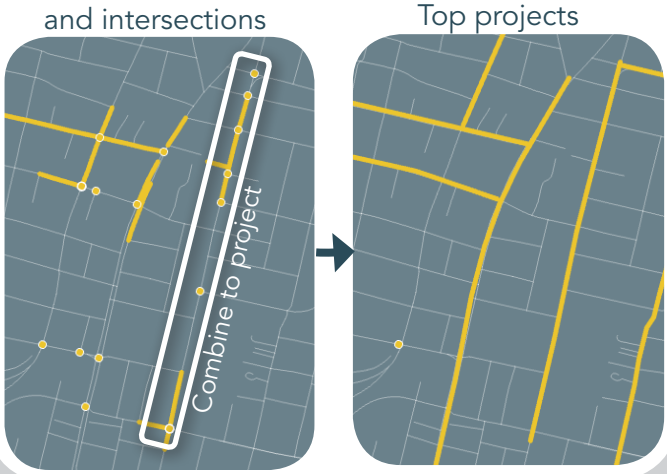
The Projects and Strategies chapter identifies:

- Top 50 Projects across the Berkshires, and corresponding countermeasures
- Top projects for each community
- Regionwide safety strategies for reducing serious and fatal crashes

In addition to the focused recommendations provided for each of the top project locations, strategies were identified for improving safety, based on elements of the Safe System Approach. Strategies were recommended based on the specific crash types and needs of the Berkshires.

PROJECT DEVELOPMENT AND PRIORITIZATION

Develop Projects
Combine high injury intersections and segments that are close into projects

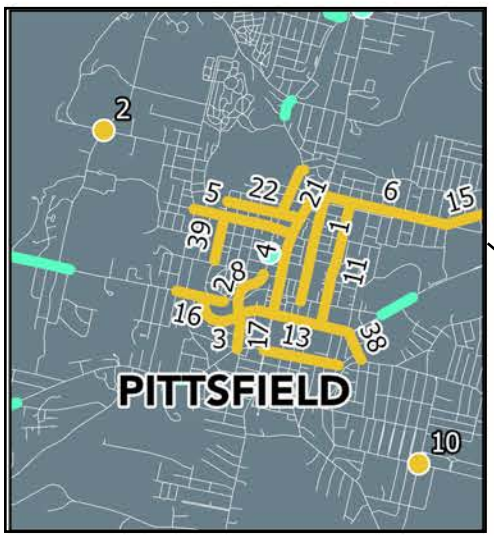


Prioritize Projects
Give each project a score and rank based on crash severity, risk, community input, environmental justice and vulnerable users

Minor Injury Crash 2018-2022 - 1 pt each
Serious Injury Crash 2018-2022 - 5 pt each
Fatal Injury Crash 2018-2022 - 15 pt each
Vulnerable User Crash 2018-2022- 1.5 pt each
+
Fatal crash 2023-8/2024 - 15 pt
+
Average risk score - 5 pt
x
Environmental Justice - 1.25
x
Community Priority - 1.25

Map 5 shows the top 50 regional projects in yellow and the top projects in each municipality in teal, for a total of 151 projects at intersections and along corridors within the 32 Berkshire communities. The projects identified cover 57% of serious and fatal crashes that occurred in the Berkshires between 2018-2022, and 92% of fatal crashes specifically.

Of the top 50 projects, 25 are in Pittsfield, 6 are in North Adams, and 5 are in Great Barrington, with others dispersed across other municpalities.



0 0.38 0.75 Miles

Top 50 Regional Projects*

- Intersections
- Corridors

**Described in more detail on page 49.*

Top Projects by Community**

- Intersections
- Corridors

***Described in more detail in Appendix C.*

Map 5. Top Regional and Town Projects in the Berkshires

0 1 2 4 Miles

Top 50 Regionwide Projects

All crash information from 2018-2022, or recent fatal crashes since 2023 from MassDOT IMPACT

RSA - was an RSA Conducted through MassDOT Road Safety Audit Program somewhere along the corridor?

TIP - Is the project listed funded on the Transportation Improvement Program?

HSIP - Is anywhere along the corridor listed as a HSIP Cluster, including a Pedestrian or Bicycle Cluster by MassDOT 2019-2021?

EJ Community - Is it in a MassGIS EJ community?

Corridors

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Score	Total Injury Crashes	Fatal/ Serious Injury Crashes	Fatal/Serious Crash Types	Countermeasures	RSA?	TIP?	HSIP? 19-21
1	First Street - Tyler to Fenn	Pittsfield	.6	City	Yes	193	68	7	Pedestrian (3), Bicyclist (1), Sideswipe (1), Angle (2)	Curb extensions at crosswalks, raised crosswalks at Common Street, bike lanes. At Fenn & First - lengthen pedestrian crossing time, consider no turn on red, consider texturing or raising intersection, upgrade to accessible signals and countdown, optimize clearance intervals, consider removal of right turn lane. Rectangular Rapid Flashing Beacon (RRFB) at Orchard Street	Y	N	Y
2	Dalton Avenue - Plastics to 1080	Pittsfield	1.2	MassDOT	Yes	168	55	2	Pedestrian (1), Bicycle (1)	Protected bike lanes, median refuge islands at pedestrian crossings, upgrade to accessible pedestrian signals (APS), pedestrian scale lighting, refresh pavement markings, optimize clearance intervals, access management, consider road diet	Y	N	Y
3	West Street/East Street - West to Fourth	Pittsfield	1.0	City	Yes	141	51	5	Angle (1), Skateboarder (1), Pedestrian (2), Bicyclist (1)	Pedestrian refuge islands, tracking lines at intersections at Center and West, RRFBs at unsignalized crosswalks, bike lanes, consider road diet, optimize clearance intervals at South and East, consider roundabout at East and Fourth	N	N	Y
4	North Street - Burbank to West	Pittsfield	.7	City	Yes	116	47	4	Pedestrian (3), Angle (1)	Finalize design for protected bike lanes and road diet, no right on red and install pedestrian signals on eastern leg at North and Columbus	Y	N	Y
5	Linden Street - Onata to North	Pittsfield	.6	City	Yes	98	35	4	Angle (2), Sideswipe (1), Head-on (1)	Raised intersection, realignment, tightened NW corner, repainted crosswalks, flashing stop signs at Onata and Linden, speed feedback radar signs, consider narrowing travel lanes, accessible pedestrian ramps, consider speed humps designed for 20 MPH. Linden & Center - trim vegetation, upgrade signals, install backplates, APS and countdown, examine clearance intervals	N	N	Y
6	Tyler Street - First to Dalton	Pittsfield	.7	City	Yes	87	56	1	Pedestrian (1)	Work recently completed in 2023 along corridor including bike lanes and roundabout at Dalton. Monitor crash reduction and speeds post redesign	N	N	Y
7	South Street/ Pittsfield Road - Devonshire Estates to Dan Fox	Pittsfield/Lenox	1.1	MassDOT	No	85	42	3	Sideswipe (2), Pedestrian (1)	Access management, zebra crossings, RRFB by crossing by West Mountain, raise median, crosswalk at New Lenox Road	N	N	N
8	Mohawk Trail - Luce to Main	Williamstown	1.8	Town/ MassDOT	Yes	84	24	2	Single Vehicle (1), Pedestrian (1)	Speed feedback signs, RRFBs at unsignalized crossings, access management and shortened crossings, consider bike lanes, consider widening sidewalks or adding buffer	N	N	Y
9	Church Street - Ashland to Hodges Cross	North Adams	1.2	City	Yes	71	14	3	Angle (1), Head-on (1), Rear-end (1)	Curve signage, realign Ashland and Church, speed feedback signs	N	N	N
10	Curran Memorial Hwy - Hodges Cross to South State	North Adams	.4	MassDOT	Yes	66	19	5	Angle (2), Rear-end (2), Sideswipe (1)	Optimize clearance intervals, tracking through intersection, zebra crossings, median refuge islands, don't block box by southbound off ramp at Walmart driveway	N	N	Y

Corridors (Continued)

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Score	Total Injury Crashes	Fatal/ Serious Injury Crashes	Fatal/Serious Crash Types	Countermeasures	RSA?	TIP?	HSIP? 19-21
11	Second Street - Burbank to East	Pittsfield	.7	City	Yes	64	23	1	Skateboarder (1)	Trim hedges at side streets for visibility, reconstruct sidewalk to include accessible ramps, consider raised crosswalks on side streets, consider traffic calming including speed humps.	N	N	Y
12	Main Street - High and Maple	Great Barrington	.7	Town	Yes	64	19	3	Pedestrian (1), Rear-end (1), Single vehicle (1)	Improvements recently completed. Monitor crashes post construction	Y	N	Y
13	East Housatonic Street - South to Deming	Pittsfield	.4	City	Yes	62	31	0	None. Minor injuries include: Angle, Rear end, bicycle and pedestrian	Rapid rectangular flashing beacons (RRFBs), Speed feedback radar signs, consider traffic calming elements and 20 MPH speed limit.	Y	N	Y
14	Main Street - 565 to North	Dalton	.4	MassDOT	Yes	59	13	2	Pedestrian (1), Bicycle (1)	Upgrade existing crossing to zebra striping, upgrade RRFB, median refuge island, bike lanes, consider making town jurisdiction and add street parking, install additional crosswalks, speed feedback radar signs, tighten intersection with North Street.	N	N	N
15	Dalton Avenue - Tyler to Ridgeway	Pittsfield	.6	City	Yes	55	29	3	Rear-end (2), Angle (1)	Road diet, add bike lanes, add RRFBs at crossings	N	N	N
16	West Street - 333 to Government	Pittsfield	.3	City	Yes	55	12	2	Pedestrian (1), Single Vehicle (1)	Realign crosswalk by Dorothy Amos and add RRFB. At West and West, conduct signal warrant analysis and consider options for shortening crossings. Consider bike lanes on corridor	N	N	N
17	Center - West Housatonic to West	Pittsfield	.2	City	Yes	52	14	2	Angle (1), Bicycle (1)	Consider road diet and add bike lanes, consider median refuge islands.	Y	N	Y
18	Cheshire - Patricia to City Line	Pittsfield	1.1	MassDOT	Yes	52	17	3	Angle (2), Single Vehicle (1)	Add buffer or separation to bike lanes, provide mid block crossings connecting to sidewalk on the east side, consider connections to the rail trail from neighborhoods	N	N	N
19	Maple - Main to 250 Maple	Great Barrington	.6	MassDOT	Yes	52	10	2	Rear-end (1), Head-on (1)	Consider eliminating passing zone, monitor recent implementation of roundabout	Y	N	N
20	Stockbridge Road - Cooper to 425	Great Barrington	.3	MassDOT	No	48	13	4	Angle (1), Single Vehicle (1), Pedestrian (1), Bicycle (1)	Consider protected mid block crossings, shorten crossing distances across driveways and side streets, Consider widening sidewalk to shared use path	N	N	N
21	Seymour Street - Wahconah to Madison	Pittsfield	.3	City	Yes	47	24	1	Bicycle (1)	At Madison intersection, add overhead flashing beacon, LED stop signs and cross traffic does not stop signs, consider bike lane / accommodation, speed feedback radar sign	N	N	Y
22	Madison Avenue - Dewey to North	Pittsfield	.4	City	Yes	46	13	3	Pedestrian (1), Bicycle (1), Single Vehicle (1)	Traffic Calming	N	N	N
23	Jacobs Ladder/ Otis Road - Greenwater to 2727	Becket	1.8	MassDOT	Yes		7	2	Angle (1), Single Vehicle (1)	Shoulder rumble strips, add curve signage by 3011 Jacobs Ladder Road, improve sight distance at Jacobs Ladder and Otis intersection	N	N	N

Corridors (Continued)

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Score	Total Injury Crashes	Fatal/ Serious Injury Crashes	Fatal/Serious Crash Types	Countermeasures	RSA?	TIP?	HSIP? 19-21
24	South Main - Ashley Falls to Pike Road	Sheffield	.6	MassDOT	Yes	43	2	2	Angle (1), Single Vehicle (1)	Centerline rumble strips, centerline refectors, curve signage, remove passing zone	N	N	N
25	Williams Street - Elm to Leona	Pittsfield	.7	City	Yes	42	9	1	Rear-end (1)	Rapid rectangular rapid flashing beacons (RRFBs) at mid-block crossings, speed feedback signs, bike lanes, consider new crossing at Williams and Elm intersection	N	N	N
26	North Main - Curves by Environmental Management	Sandisfield	2.4	MassDOT	No	42	7	3	Single Vehicle (1), Head-on (2)	Centerline rumble strips, guardrail at some locations, edge line rumble strips, narrow shoulder, curve signage	N	N	N
27	Mohawk Trail - Brown to 305 West Main	North Adams	.4	City	Yes	41	8	3	Single Vehicle (1), Head-on (1), Pedestrian (1)	Speed advisory signs at curve, reflectors on poles, centerline rumble strips in the curve, widen sidewalks, add RRFB and zebra crossing with accessible ramps at Charles Street	N	N	N
28	Center Street - Columbus to West	Pittsfield	.3	City	Yes	40	17	1	Pedestrian (1)	At Columbus and Center - Consider intersection realignment including roundabout, upgrade pedestrian signals to include countdown, APS. Consider road diet, narrow travel lanes, construct sidewalk on both sides of and consider shared use path one side.	N	N	N
29	Main Street - State to Church	North Adams	.2	Town	Yes	40	13	1	Bicycle (1)	Road diet, At Eagle and Main - install curb extensions to shorten crossing distances, provide countdown signals, install accessible pedestrian signals (APS), add crosswalk on east side of intersection, optimize clearance intervals, add bike lanes	N	N	N
30	Hoosac Street - Columbia to Richmond	Adams	.4	Town	Yes	38	10	1	Pedestrian (1)	School zone, add curb extensions at crosswalks, add accessible ramps	N	N	N
31	State Road/ Central Berkshire Blvd - West Housatonic to Anthony	Pittsfield/ Richmond	1.6	MassDOT	No	38	8	1	Single Vehicle (1)	Reflective object markers on poles	N	N	N
32	Stockbridge Road - Lover's to Glen Sault Park	Great Barrington	.16	MassDOT	No	38	2	2	Single Vehicle (1), Head-on (1)	Trim trees to improve sight lines, intersection ahead signs from both directions for Lover's Lane, centerline reflectors. Centerline rumble strips recently added	N	N	N
33	New Ashford Road - Williamstown line to Hancock	Williamstown	2.4	MassDOT	No	37	7	2	Single Vehicle (1), Rear-end (1)	Intersection ahead signs for Roaring Brook and eliminate no passing zone, reflectors on guard rails and poles, centerline and shoulder rumble strips	N	N	N
34	Housatonic Street/East Street - Bracelan to Bentrup	Lenox	.5	Town	No	36	5	1	Bicycle (1)	Trim trees to improve sight distance at intersection, add ramps, overhead flashing beacon, reflectors on poles, consider options for bike accommodation	N	N	N

Corridors (Continued)

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Score	Total Injury Crashes	Fatal/ Serious Injury Crashes	Fatal/Serious Crash Types	Countermeasures	RSA?	TIP?	HSIP? 19-21
35	Curran Memorial Hwy - 667 to 922	North Adams	.5	MassDOT	Yes	35	8	2	Rear-end (1), Head-on (1)	Centerline rumble strips, access management	N	N	N
36	Lanesborough Road - South to Lake Shore	Cheshire	.3	Town	No	35	6	2	Single Vehicle (1), Head-on (1)	6" reflective edge lines, curve signage, consider Ting up intersection at South and Lanesborough, intersection for design.	N	N	N
37	State Road - North Plain to Stockbridge	Great Barrington	.5	MassDOT	Yes	35	15	1	Angle (1)	Consider roundabout at Stockbridge and State, access management, convert shoulder to bike lanes	N	N	N
38	Elm Street - East to High	Pittsfield	.2	City	Yes	33	13	2	Pedestrian (2)	Rapid rectangular flashing beacon (RRFB) at midblock crossing, median refuge island	N	N	N
39	Dewey Avenue - Columbus to Linden	Pittsfield	.3	City	Yes	33	4	1	Single Vehicle (1)	Traffic calming	N	N	N
40	South Main Street - Miner to Lanesborough/ Pittsfield Line	Lanesborough	1.1	MassDOT	No	32	18	3	Head-on (1), Rear-end (1), Single vehicle (1)	In Design - monitor improvements.	N	Y	N

Intersections

#	Intersection	City/Town	Jurisdiction	EJ Community	Score	Total Injury Crashes	Fatal/ Serious Injury Crashes	Fatal/Serious Crash Types	Countermeasures	RSA?	TIP?	HSIP? 19-21
1	Dublin Road and State Road	Richmond	MassDOT/ Town	No	40	4	2	Angle (2)	Countermeasures installed since fatal crashes - monitor safety improvements	Y	N	N
2	Valentine Road and Lakeway Drive	Pittsfield	City	No	25	10	0	Fatal in 2023 - Angle	Intersection ahead signs, flashing stop signs, RRFB	N	N	Y
3	Newell Street and East Street	Pittsfield	City	No	20	6	1	Angle (1)	Reduce to one lane westbound approaching the intersection. Provide left turn storage lane at westbound approach, consider intersection tightening through addition of curb extension on southeast side	N	N	N
4	Eagle Street, Union Street, and Mohawk Trail	North Adams	City	Yes	18	10		None - minor injuries: Angle (4), Rear-end (3), Pedestrian (2), Single Vehicle (1)	Consider roundabout, provide tracks through intersection, remove lane going westbound west of intersection to shorten crossing, provide protected left turn from eastbound to northbound, pull up the eastbound stop bar, upgrade signals	N	N	Y
5	Veteran's Memorial Hwy and Old Stockbridge Road	Lenox	MassDOT/ Town	No	16	2	1	Single vehicle (1)	Consider intersection realignment	N	N	N

Intersections (Continued)

#	Intersection	City/Town	Jurisdiction	EJ Community	Score	Total Injury Crashes	Fatal/ Serious Injury Crashes	Fatal/Serious Crash Types	Countermeasures	RSA?	TIP?	HSIP? 19-21
6	Bears Den Road and Berkshire School Road	Sheffield	Town	No	15	1	1	Single vehicle (1)	Curve signage, lighting at intersection	N	N	N
7	Pittsfield Road and Washington Road	Hinsdale	MassDOT	No	15	1	1	Angle (1)	Intersection realignment, intersection ahead signage	N	N	N
8	Hubbard Avenue and Berkshire Crossing Driveway	Pittsfield	City	No	15	9	0	Angle (2)	Intersection realignment, roundabout, add pedestrian crosswalks and signals	Y	N	Y
9	Holden Street and Veteran's Memorial Drive	North Adams	City	Yes	12	6	0	None- minor injuries: Rear-end (3), Angle (1), Head-on (1), Pedestrian (1)	Consider removing approaches and shortening crossing distances. Improve left turn phasing.	N	N	N
10	Williams Street and Holmes Road	Pittsfield	City	No	11	7	1	Angle (1)	Consider converting eastbound right turn lane to left turn lane, install intersection signage on all legs, upgrade signal equipment, consider narrowing receiving lanes	N	N	Y

Top locations by Municipality located in Appendix C.

Future implementation of these recommendations is subject to project approval by MassDOT's Project Review Committee (if federal funds are to be used for construction); MPO approval and programming; public participation and community support; and the availability of State and Federal funding for construction.

Recommended Policies & Strategies

Besides the site specific safety recommendations within the Safety Action Plan, regionwide strategies were identified to address key parts of the Safe System Approach - Safer People, Safer Vehicles, Safer Speeds, Safer Roads, and Post-Crash Care. The strategies listed were developed referencing plans including the 2023 Statewide SHSP, the VRU Assessment, the 2024 Berkshire County Regional Transportation Plan, the 2019 Statewide Bicycle and Pedestrian Plans, the Project Development and Design Guide, resources from organizations like Walk Massachusetts, and conversations with Berkshire County stakeholders and key safety issues identified as part of the safety analysis.

Safer People

Goals	**"Encourage safe, responsible driving and behavior by people who use our roads and create conditions that prioritize their ability to reach their destination unharmed" - USDOT**	**Reducing distractions on the road along with improved education and penalties can improve people's sense of roadway responsibility.**	**As the ones who utilize the roads, people should be actively engaged and aware of other users in the road to reduce the risk of any collisions.**

Strategy/Policy	Implementation Level	Crash Type	Strategy Type
Pursue further updates and expansions to current Complete Streets policies as well as assist and encourage unregistered communities to adopt new complete streets policies to align with national best practices and state provided resources.	Local/Regional	Pedestrian/Bicycle	Policy Development
Develop and continue road safety education programs that promote road safety for all users. A major tool for this is the Massachusetts Safe Routes to School program for schools. Social media campaigns can reach residents of all ages.	Local	Pedestrian/Bicycle	Education
Develop and emphasize traffic safety campaigns for common dangerous driving behaviors such as: distracted driving, drunk or impaired driving, red light running, failing to yield to pedestrians, tailgating and aggressive driving.	Local/Regional/State	Dangerous driving behavior	Education/ Enforcement
Gain support of Mass State Police and local police to become active in campaigns to combat dangerous driving behaviors.	Local/Regional/State	Dangerous driving behavior	Education
Research and pilot driver feedback signs that can detect unsafe driving behaviors such as speeding, texting while driving, and not wearing a seatbelt. These feedback signs, called SmartSign's can display custom messages to drivers and collect data on the number of distracted or speeding drivers.	Local	Dangerous driving behaviors	Enforcement/ Education/ Infrastructure
Coordinate with MassDOT to spread the word on the "Eyes Up, Phones Down" campaign to reduce distracted driving and crashes caused by distracted driving.	Regional/State	Distracted Driving	Education
Develop and distribute either townwide or region wide Vision Zero information that explains the efforts and projects being built to improve road safety as well as communicate updates in crash trends throughout the region.	Local/Regional	All	Education
Support the expansion of public transit service, in addition to investment in public transit infrastructure such as bus shelters, to encourage mode shift to public transit, a safer mode.	Regional/State	Crashes involving vehicles	Infrastructure Upgrades/Service
Continue education of local DPW staff on the principals of Vision Zero and the Safe System approach for the future application in traffic safety improvement projects.	Regional	All	Education
Expand enforcement efforts of dangerous driving behaviors, including drunk or impaired driving, distracted driving and speeding.	Local/State	Dangerous driving behavior	Enforcement
Advocate for stricter penalties, such as license removal, for dangerous driving behaviors.	Regional/State	Dangerous driving behavior	Enforcement
Provide education on new types of pedestrian crossing devices, such as RRFBs and HAWK	Local/Regional/State	Pedestrian	Education
Assist and encourage towns and the region to develop Vision Zero Newsletters for providing information on safety project updates, trends in crash data, and educational materials for reducing DUI and distracted driving.	Regional	All	Education
Develop an education campaign aimed at improving motorcycle safety and operator training.	Regional/State	Motorcycle	Education
Support MassDOT in their efforts to distribute signage signage alerting motorists to provide 4 feet between vehicles and cyclists. Support police education on enforcement of the new law.	Regional/State	Bicycle	Education

Safer Vehicles

Goals			
	"Expand the availability of vehicle systems and features that help to prevent crashes and minimize the impact of crashes on both occupants and non-occupants" - USDOT	**Burgeoning technology has a role to play in protecting road users and reducing or eliminating severe crashes.**	**Encouraging adoption of safer vehicles which contextually fit to their surroundings, such as disallowing semis and other large vehicles from high-density intersections, can help to reduce traffic or possible entanglement in major intersections.**

Strategy/Policy	Implementation Level	Crash Type	Strategy Type
Assist in developing safety standards for fleet vehicles or research and recommend vehicles that conform to updated safety standards. Apply these safety standards and recommendations to cities and towns when purchasing fleet vehicles.	Local/Regional	All	Safety Standards
Continue the development of policies that relate to the safety and use of emerging micromobility devices such as scooters and electric bicycles.	Regional	Bicycle/Scooter	Policy Development
Implement a program for distribution of safety equipment, i.e. bicycle lights and car seats to Berkshire residents.	Regional	All	Safety Equipment

Safer Speeds

Goals			
	"Promote safer speeds in all roadway environments through a combination of thoughtful, equitable, context-appropriate roadway design, appropriate speed-limit setting, targeted education, outreach campaigns, and enforcement." - USDOT	**Making roadway speeds contextually match their surroundings can encourage safer travel for all while promoting faster flow of traffic.**	**Areas with vulnerable road users can be greatly improved by ensuring that roads properly indicate where speeds should be reduced.**

Strategy/Policy	Implementation Level	Crash Type	Strategy Type
Develop target speeds for high priority roadways in the region. Design changes and/or projects to achieve target speeds through enforcement, roadway design, or education.	Local/Regional/State	All	Design Standards
Policy Update: Opt-in to Ch90s17C of Massachusetts General Law to reduce the statutory speed limit from 30 mph to 25 mph on any or all city- or town-owned roadways within a thickly settled or business district	Local	All	Policy development
Develop pilots to test automated enforcement strategies for key speed zones. (Automated enforcement is not currently permitted under Massachusetts Law, however, this may help to inform recommendations for legislation approval)	Regional	All	Enforcement
Create and advocate for self-enforcing speeds on roadways, especially in downtown settings, through usage of traffic control devices, pavement markings, signage, education, and other strategies to achieve safe target speeds.	Local/Regional	All	Infrastructure upgrades
Prioritize road user safety over driver delay in current operations and future designs, as guided from the MassDOT Project Development and Design Guide	Local/Regional/State	All	Policy development
Implement program to assist with municipal aquisition of speed feedback signs. Encourage rotation of speed feedback signs.	Local/Regional/State	All	Infrastructure upgrades
Communicate and create plans with local DPW's on the maintenance (including snow removal) of vertical road safety projects, such as speed humps and raised crosswalks.	Local/Regional	All	Maintenance
Encourage and provide guidance to municipalities on how to opt-in for 20 MPH safety zones near parks, playgrounds, childcare centers, hospitals, older adult housing, senior centers and locations frequently visited by older adults or children. Offer assistance in acquiring signage and providing roadway treatments to cue drivers to slow down in these areas.	Regional	Pedestrian/Cyclist	Speed limit change and infrastructure upgrade

Safer Roads

Goals			
	"Design roadway environments to mitigate human mistakes and account for injury tolerances, to encourage safer behavior, and to facilitate safe travel by the most vulnerable users." - USDOT	**Separation is a crucial factor when designing safe corridors for travel – as such, keeping drivers, bicyclists, and pedestrians separated is an effective way to reduce the likelihood of collisions and injury.**	**Roadway infrastructure has an important role to play in visually conveying to users how to travel safely, such as properly indicated speeds, any crossings or intersections, and other factors impacting safety.**

Strategy/Policy	Implementation Level	Crash Type	Strategy Type
Use local, state, or Safe Streets for All funding to pilot safety improvements (quick build safety demonstration projects) in communities for potential funded permanent installations. For example, temporary traffic circles using cones and pavement markings or adding quick build bike lanes to corridors.	Local	All	Quick-build
Follow the principles of the Safe System approach when making updates to design standards and project selection tools throughout communities.	Local/Regional/State	All	Design Standards
Work with towns and cities to review roadway resurfacing projects and use high-friction surface treatment at locations of frequent roadway departure crashes.	Local/Regional	Single Vehicle, Wet road	Infrastructure upgrades
Work with towns and cities to review roadway resurfacing projects (including timelines) and provide assistance with potential low-cost safety improvement options that could be added during repaving.	Local/Regional	All	Quick-build
Assist communities in developing maintenance schedules for infrastructure such as pavement surfaces, pavement markings, sidewalks, and other infrastructure that improves roadway safety for all users.	Local/Regional	All	Maintenance
Provide increased consideration during project and policy development for older adults, especially for areas with frequent use of electric wheelchairs or other mobility devices. Ensure that all infrastructure is accessible and meets requirements as set by PROWAG.	Local/Regional	All	Accessibility
Improve sidewalk connectivity and construct PROWAG compliant sidewalk ramps to encourage more walking trips and improve pedestrian safety.	Local/Regional/State	Pedestrian	Accessibility/ Infrastructure upgrades
Develop safety countermeasures at locations where fatalities have occurred, especially if the location has additional historical record of high rates of injury crashes.	Local/Regional/State	All	Infrastructure upgrades
Identify proven safety countermeasures for various crash types at intersections and roadway segments to reduce injury crashes.	Regional	All	Infrastructure upgrades
Implement specific proven safety countermeasures that address the need for reducing pedestrian – vehicle conflicts throughout many municipalities in the Berkshires. This includes elements such as leading pedestrian crossing intervals, designing bump outs at midblock crossings, and installing devices such as rectangular rapid flashing beacons (RRFB).	Local/Regional/State	Pedestrian	Infrastructure upgrades
Work with communities to develop maintenance schedules for clearing sidewalks and/or intersection approaches of vegetation that may hinder sight distance or the ability for wheelchair users to easily use the sidewalk facilities. This may also include education on keeping sidewalks clear from trash or recycle buckets or removing other obstructions such as signage.	Local/Regional/State	Pedestrian	Maintenance/ Accessibility/ Education
Work with communities to apply for the Rectangular Rapid Flashing Beacon (RRFB) application survey, which if accepted, MassDOT will provide RRFB assemblies to municipalities at no cost. RRFB assemblies must be installed at marked crosswalk locations with ADA compliant ramps within a municipality owned public roadway, as well as be installed in compliance with MassDOT standards, PROWAG, and Architectural Access Board Regulations. The cost of installation will fall on the municipality.	Local/Regional/State	Pedestrian	Infrastructure upgrades
Work with communities to improve the recording of crash data by police officers and other first responders, including improvements in geo-recording of crash data.	Regional	All	Data Collection
Reduce the number of single-vehicle crashes, including lane departure crashes through systematic traffic safety projects, such as adding reflectors to utility poles, adding centerline and road edge rumble strips and curve signage.	Local/Regional/State	Single Vehicle	Infrastructure upgrades
Update design standards for bicycle and pedestrian facilities to align with state guidance from the MassDOT PDDG and the MassDOT Separated Bike Lane Planning and Design Guide.	Local/Regional	Pedestrian/Bicycle	Design Standards
Review policies for street parking in communities, especially near public works buildings such as town halls and libraries, for the interference with bike facilities and sidewalks.	Local/Regional	Pedestrian/Bicycle	Policy Development

Safer Roads (continued)

Strategy/Policy	Implementation Level	Crash Type	Strategy Type
Work with state entities to streamline the process of developing and constructing traffic safety projects on state owned roads, especially roads that are included in the high injury network.	Regional/State	All	Process Improvement
Review high-volume freight and truck routes and work with communities on developing infrastructure projects that allows for easy navigation by large freight trucks while still improving roadway safety for all users (including pedestrians and bicyclists).	Regional	Truck/Pedestrian/ Bicycle	Infrastructure upgrades
Continue to update the high injury network with updated crash data and community input and revise the top priority list of intersections and corridors as needed due to expected or unexpected traffic demand or increases in crash frequency.	Regional	All	Planning
Expand walking and biking trail connectivity throughout the Berkshires, allowing for more bicyclists and pedestrians to use shared use paths as opposed to vehicle dominated roadways.	Local/Regional/State	Pedestrian/Bicycle	Infrastructure upgrades
Advocate for increased work zone safety, including adding variable speed limits in work zones, and reviewing and increasing safety protocols for construction projects including the prohibition of cell phone use.	Local/Regional	All	Safety Protocols
Encourage municipalities to include sidewalk repair & replacement, snow and ice removal, sidewalk gap construction, and crosswalk restriping in municipal budgets.	Regional/Local	Pedestrian	Maintenance
Apply for Regional Transit Authority discretionary funds to assist with purchasing benches, shelters and providing other bus stop improvements.	Regional	Pedestrian/Transit	Infrastructure upgrades
Conduct Road Safety Audits (RSAs) at high crash locations and locations where a fatal crash occurred.	Regional	All	Planning
Monitor online public map on an ongoing basis to address public concerns in any upcoming roadway projects.	Regional	All	Planning

Post-Crash Care

Goals	**"Enhance the survivability of crashes through expedient access to emergency medical care, while creating a safe working environment for vital first responders and preventing secondary crashes through robust traffic incident management**	**Making roadway speeds contextually match their surroundings can encourage safer travel for all while promoting faster flow of traffic.**	**Areas with vulnerable road users can be greatly improved by ensuring that roads properly indicate where speeds should be reduced.**

Strategy/Policy	Implementation Level	Crash Type	Strategy Type
Add signal priority for emergency response vehicles (to signals that do not have signal priority or have outdated/unreliable communication with communication devices in emergency response vehicles).	Local/State	All	Infrastructure upgrades
Implement policy to protect first responders at crash sites through temporary traffic control.	Local/Regional/State	All	Policy Development
Continue to improve cell service coverage to assist with easy emergency calling.	Regional	All	Infrastructure upgrades

8 EQUITY ANALYSIS

The Berkshires is not only diverse in terms of roadway types and community density, but also the population is diverse in terms of income, race and transportation access.

This plan recognizes the Berkshires' communities with lower incomes, communities of color, those with limited English or low vehicle access may be underserved by planning processes. Therefore, this plan prioritizes safety improvements within these communities, consistent with USDOT requirements.

As described in the Safety Analysis and the Projects and Strategies chapters, the high injury network development and the project prioritization processes both prioritized Environmental Justice (EJ) communities - communities with underserved populations, specifically communities of color, communities with limited English proficiency and lower income communities. The high injury network weighted EJ communities with a multiplier of 1.5x and the project prioritization with a multiplier of 1.25x.

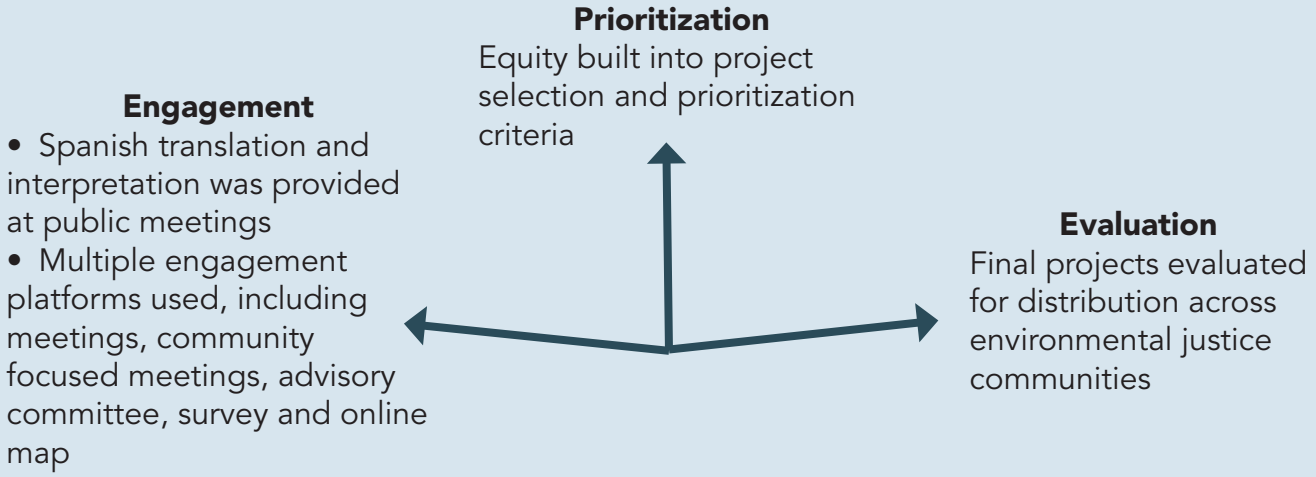
This Equity Analysis chapter seeks to further evaluate the proposed projects through an equity lens, using various equity characteristics available, including MassGIS Environmental Justice communities previously used, REJ+ data available through the State of Massachusetts and the USDOT Equity Explorer, described on the following page.

The Equity Analysis Chapter:

- Summarizes and describes equity indicators in the Berkshires
- Evaluates the recommended projects through a lens of equitable distribution across under-served communities

"Environmental Justice means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation or disability"
- USDOT

MULTI-PRONGED APPROACH TO EQUITY



Environmental Justice Communities in the Berkshires

MassGIS Environmental Justice Communities

The Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Environmental Justice Policy informed the development of the MassGIS EJ Communities map which identifies EJ populations based on 2020 Census Block Groups. An EJ community is identified if a block group meets one or more of the following criteria:

- Annual median income (AMI) is at or below 65% of the statewide AMI
- Minorities (people besides non-Hispanic white) comprise 40% or more of population
- 25% of households or more lack English language proficiency
- Minorities comprise 25% or more and the City/Town's AMI is at or below 150% of statewide AMI

In the Berkshires...

- 51 census block groups qualify on income, minority population or minority and income. They are in Adams, Becket, Dalton, Great Barrington, Hinsdale, Lee, Lenox, North Adams, Pittsfield, Savoy, Sheffield, Stockbridge and Williamstown.
- 41% of geocoded injury crashes in the Berkshires between 2018-2022 occurred in the region's environmental justice communities, roughly in line with the population living in EJ communities (39%), according to 2021 Census 5-Year Estimates.

Massachusetts REJ+ Communities

In the Berkshires...

- 66 census block groups qualify as EJ under REJ+ criteria. They are in the same towns as under MassGIS, and also Alford, Monterey, Sandisfield, New Marlborough, Tyringham, Cheshire, and West Stockbridge
- 54% of geocoded injury crashes in the Berkshires between 2018-2022 occurred in the REJ+ communities, slightly higher than the 51% of people living in REJ+ communities.

The Massachusetts Department of Transportation (MassDOT) developed a Regional Environmental Justice + indicator, expanding the communities considered to be EJ. REJ+ also uses 2020 block groups and includes the criteria under the MassGIS EJ Communities, but it also includes block groups with limited car ownership, disabilities, or older populations. The layer also normalizes the data to each MPO boundary.

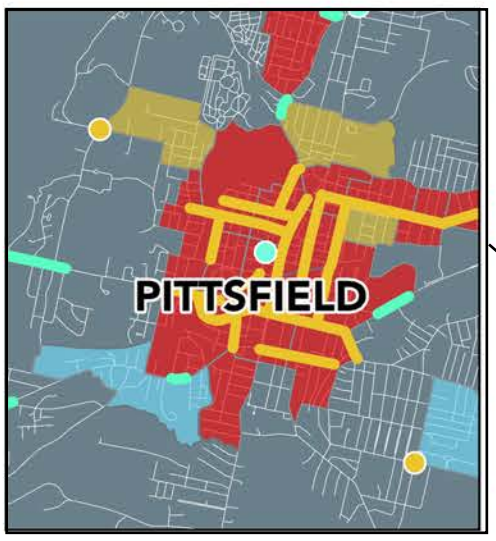
USDOT Equitable Transportation Community (ETC) Explorer

Created as part of the Justice40 Initiative under the Biden-Harris administration, the ETC Explorer aims to highlight communities that have received underinvestment in transportation. The explorer focuses on Transportation Insecurity, Climate and Disaster Risk Burden, Environmental Burden, Health Vulnerability and Social Vulnerability. The tool uses 2020 data and census tracts. In the Berkshires, the tool states 23% of census tracts are disadvantaged under ETC criteria.

The top projects were assessed to understand the percentage of projects located fully or partially within an environmental justice community, as defined by the EEA and MassGIS. This analysis seeks to ensure EJ communities are represented within the implementation program for this plan. The location of top projects reflects that environmental justice communities were prioritized through the project selection process by weighting their score higher. Map 6 shows the top projects overlayed with the environmental justice communities in the Berkshires.

66%

of Top 50 projects are in an EJ community, as defined by the EEA and MassGIS



Top 50 Regional Projects

- Intersections
- Corridors

Top Projects by Town

- Intersections
- Corridors

EJ Communities

- Income
- Minority
- Minority & Income

CLARKSBURG
WILLIAMSTOWN
NORTH ADAMS
FLORIDA
ADAMS
NEW ASHFORD
SAVOY
HANCOCK
CHESHIRE
WINDSOR
LANESBOROUGH
DALTON
PITTSFIELD
HINSDALE
PERU
RICHMOND
WASHINGTON
LENOX
STOCKBRIDGE
WEST STOCKBRIDGE
LEE
BECKET
ALFORD
TYRINGHAM
GREAT BARRINGTON
OTIS
MONTEREY
EGREMONT
SANDISFIELD
MOUNT WASHINGTON
SHEFFIELD
NEW MARLBOROUGH

N
W
E
S

0 1 2 4 Miles

Map 6. Environmental Justice Communities

Source: MassGIS EJ Layer 2020

9 PROGRESS & TRANSPARENCY

As communities in the Berkshires implement the projects and strategies recommended within the Safety Action Plan, it will be important to understand if the implemented improvements have the desired safety outcomes, moving the region closer to its Vision Zero goal. This chapter provides a framework for the ongoing evaluation of safety projects and outcomes in the Berkshires.

The Progress & Transparency Chapter:

- Provides a framework for evaluating and monitoring safety outcomes from projects and strategies recommended in the plan.
- Identifies clear, trackable performance measures and outcomes towards Vision Zero.

Key Questions at the Heart of the Evaluation Process

Reporting progress is focused around answering the following questions over time.

- Are safety projects, strategies and enforcment being implemented?
- Are the projects and strategies resulting in a decrease in the number of serious and fatal injury crashes? What types of crashes specifically?
- Are the projects and strategies being implemented equitably?
- Is the public aware of the region's Vision Zero goal and the progress BRPC communities are making towards the goal?
- Are there any new safety issues or crash hotspots in the Berkshires?

Framework for Evaluating Progress and Reporting

The following steps will be followed to track and report on progress.

1. **Assign responsibility** for evaluating progess, including formation of a Vision Zero Advisory Committee
2. Identify **key performance measures** to track progress towards Vision Zero and implementation
3. Develop **targets/ milestones** related to performance measures
4. **Report Annually** on key performance measures and progress towards targets
5. **Update the Plan** as is necessary

1 Assign Responsibility & Form Vision Zero Committee

To ensure tracking is completed efficiently and timely every year, BRPC will have dedicated staff in charge of monitoring the progress of the Safety Action Plan as outlined in this chapter.

In addition, BRPC will establish a Vision Zero Task Force with representatives of communities across the Berkshires including transit authorities, fire and police departments and town administrators and MassDOT representatives in charge of reviewing the progress of safety measure implementation and assisting BRPC with annual reporting. Task forces most commonly meet 2-4 times per year. The task force will be convened in advance of the annual 2026 annual report.

Having dedicated staff and a group in charge will ensure accountability towards tracking the progress of the action plan and movement towards Vision Zero.

2 Key Performance Measures

As part of the annual reporting process, BRPC will focus on tracking the most high impact and easily trackable measures with available data while also continuing to improve data availability and reliability, particularly crash data reporting. Below are several key performance measures BRPC will use to track progress on both implementing the Safety Action Plan and on moving towards zero fatal or serious crashes.

Measures of Outcome (Has roadway safety improved in line with Vision Zero goals?**)**

1. # of fatal and serious crashes over the past five years

2. # of fatal and serious crashes over the past five years by type
   - Single Vehicle
   - Angle
   - Head On
   - Pedestrian
   - Bicycle
   - Motorcycle

Measures of Implementation (Have safety improvements been implemented equitably and in a timely manner?**)**

1. % of safety projects/strategies in Safety Action Plan completed year by year regionwide and by community

2. # of Vision Zero communications with BRPC residents, stakeholders and advisory group members (meetings, social media posts, etc.)

3. % of projects implemented in EJ communities year by year

3 Key Outcome Milestones & Targets

The following tables below show the targets for the key outcome measures of fatal and serious crashes over time, tracking towards zero fatal and serious crashes in 2040. The crashes are broken down by crashes that are more likely to result in fatal and serious injury - single vehicle, head-on, angle, pedestrian, cyclist, and motorcyclist.

The performance measures were developed by calculating the average fatal and serious crashes that occurred per year between the years 2018-2022, the most recent available years of data. Then, using 2040 as a target for zero fatal and serious crashes, calculated the required decrease in fatal and serious crashes per year to reach zero. The 2030 Target was calculated by reducing the Baseline by the necessary decrease per year for six years from the Baseline year. As a note on the performance measures, motorist crashes do not include motorcyclist crashes as those are tracked separately.

Performance Measure: 5-Year Rolling Average **Fatal Crashes** Regionwide

User/Crash Type	**Baseline** Average crashes per year 2018-2022	**2030 Target** Average crashes per year 2026-2030	**2040 Target** Average crashes per year 2036-2040
All	12.4	7.75	0
Motorist - All	10.8	6.75	0
Motorist - Single Vehicle	3.6	2.25	0
Motorist - Head-On	2.0	1.25	0
Motorist - Angle	0.8	0.5	0
Pedestrian	1.2	0.75	0
Bicyclist	0.4	0.25	0
Motorcyclist	4.0	2.5	0

Measures are based on MassDOT Impact Data, excluding interstates

Performance Measure: 5-Year Rolling Average **Serious Injury Crashes** Regionwide

User/Crash Type	**Baseline** Average crashes per year 2018-2022	**2030 Target** Average crashes per year 2018-2022	**2040 Target** Average crashes per year 2018-2022
All	46.8	29.25	0
Motorist - All	27.6	17.25	0
Motorist - Single Vehicle	14.5	9.06	0
Motorist - Head-On	3.0	1.88	0
Motorist - Angle	4.8	3.00	0
Pedestrian	7.8	4.88	0
Bicyclist	2.4	1.50	0
Motorcyclist	8.8	5.50	0

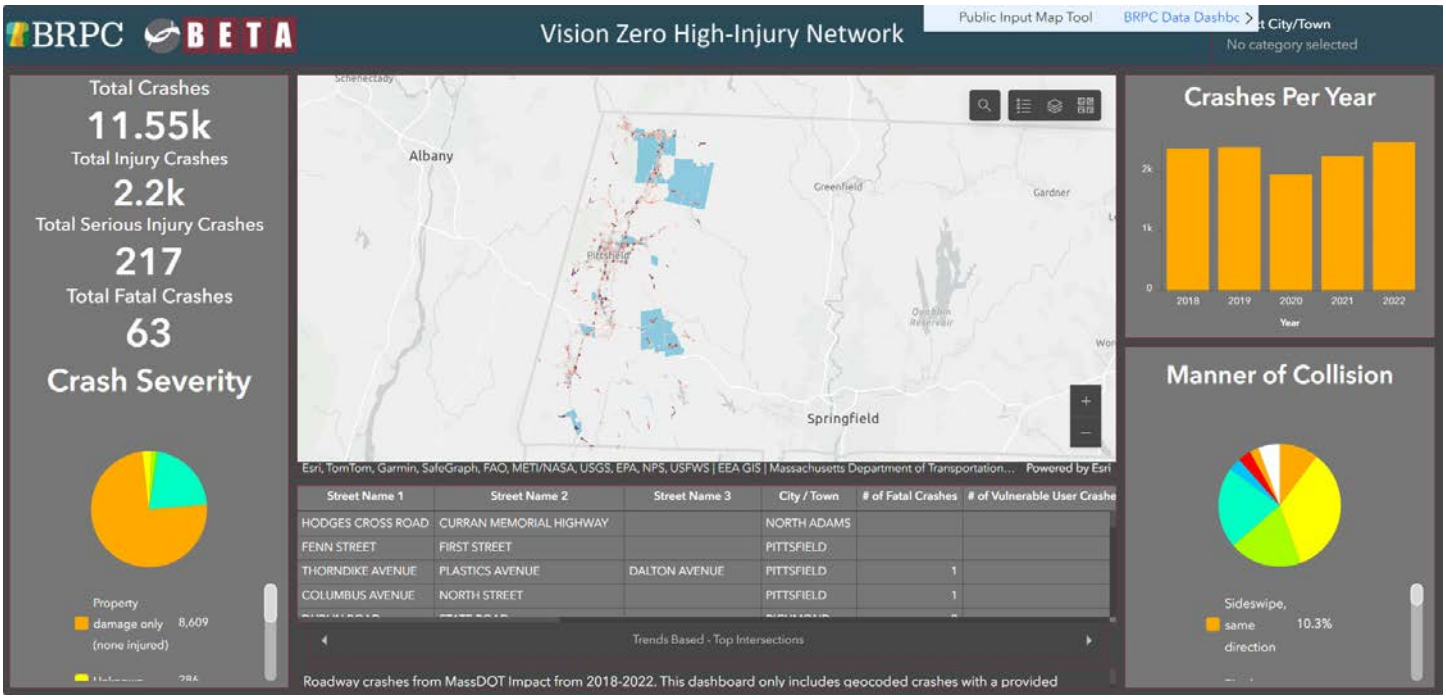
Measures are based on MassDOT Impact Data, excluding interstates

4 Annual Reporting

The SS4A program requires annual public and accessible reporting on progress toward reducing roadway fatalities and serious injuries and public posting of the Action Plan online. To comply, a report will be published annually that shares progress on the outcome and implementation performance measures over time. The report will be publicly accessible, provided on the BRPC website, presented at a Berkshire MPO meeting and shared with USDOT. The online reporting will be supplemented through statistics provided on the BRPC online dashboard, described in further detail below.

Online Dashboard

As part of the Safety Action Plan planning process, BRPC developed an online dashboard for sharing crash data. This dashboard will be expanded to include information over time on how the Berkshires is tracking towards their Vision Zero goals and action plan project completion. This dashboard will be used both internally by BRPC staff and by communities to track their own progress, while also providing residents and stakeholders an opportunity to keep track of projects in the pipeline and crash reduction.



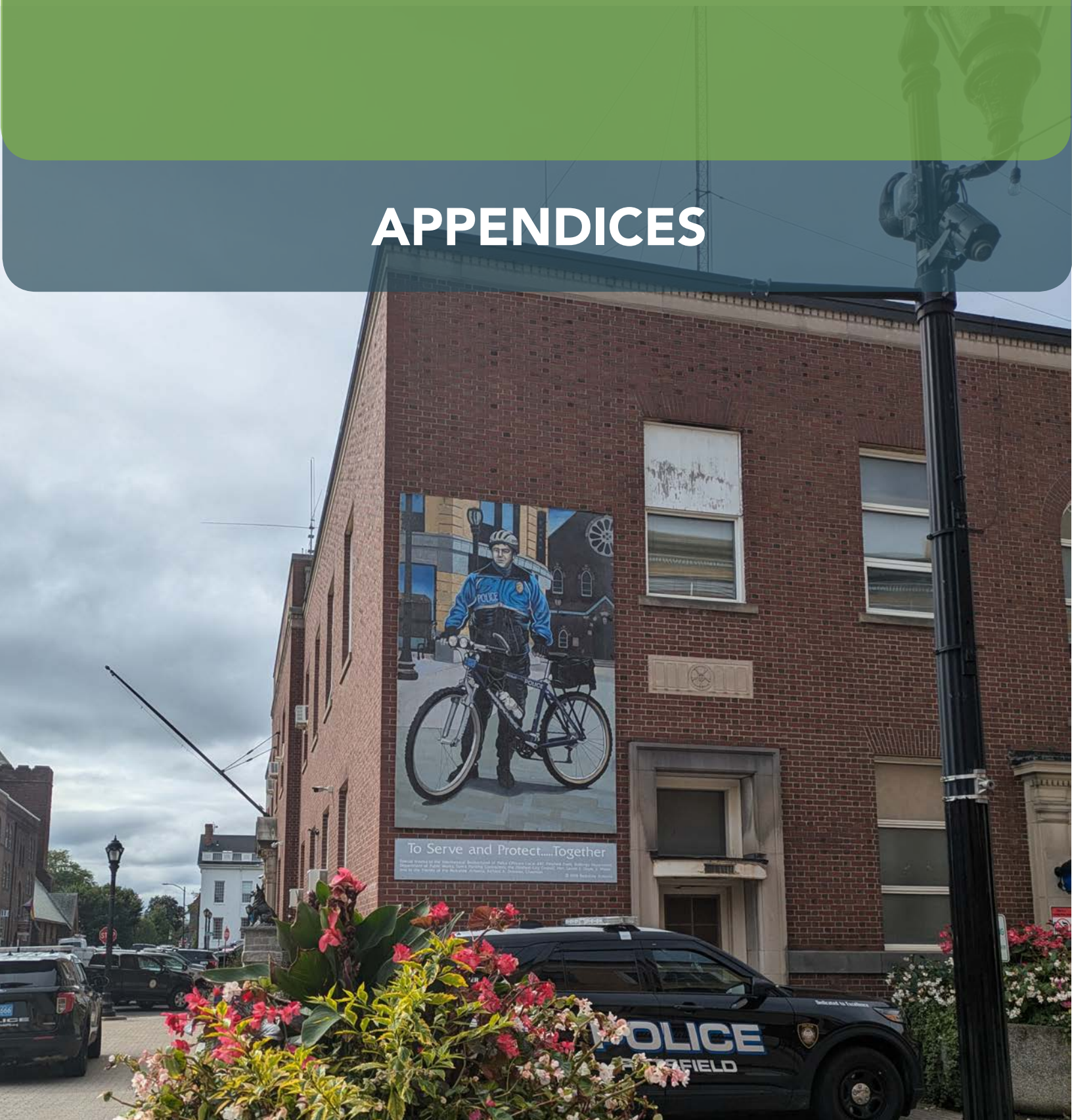
5 Updating the Plan

After five years, the safety trends and prioritized projects within the Berkshires may have changed. At this point, pending the availability of funding, BRPC will evaluate whether an update to the plan is needed to update the project lists, strategies and safety analysis using new crash data and any new understanding of safety countermeasures that may have evolved.

TO CONCLUDE...

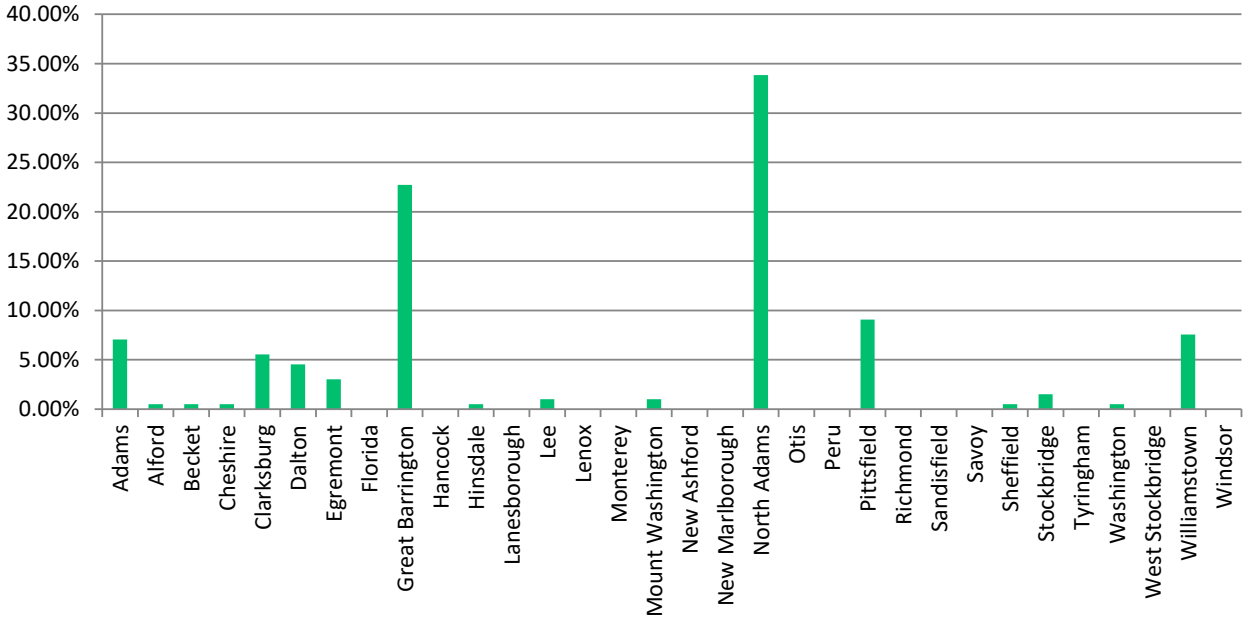
The Berkshires is taking a large step towards the goal of eliminating serious and fatal injury crashes on our roadways with the development of this Safety Action Plan. We, as a region, recognize the pain each life lost or altered on our roadways brings to our communities. Seeking to create roadways where Berkshire residents and visitors can feel safe and connected, this Safety Action Plan's recommendations offer concrete action steps we can implement to move us closer to our eventual goal of zero roadway deaths and serious injuries. BRPC, with the partnership of MassDOT and our 32 communities, will track the progress towards our goals and be responsive to feedback from our communities.

APPENDICES

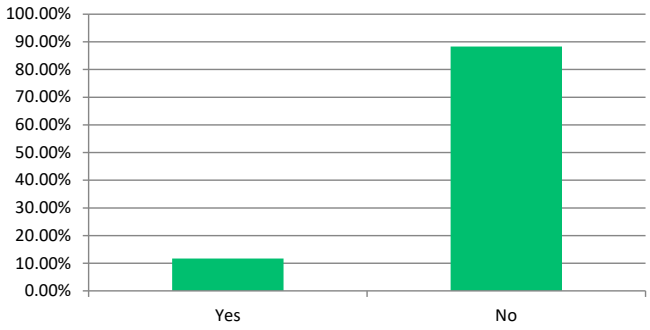


Appendix A. Survey Responses

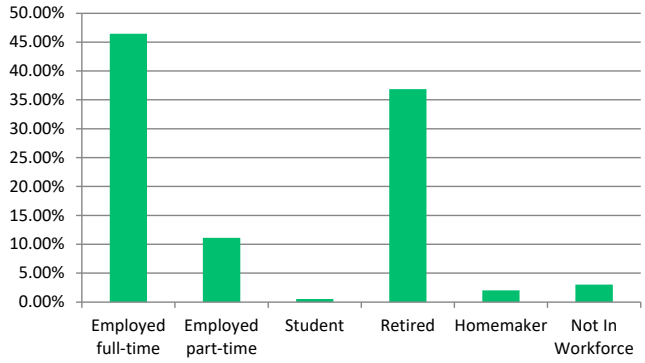
Question 1. Where in Berkshire County do you live? (Full- or Part-Time)



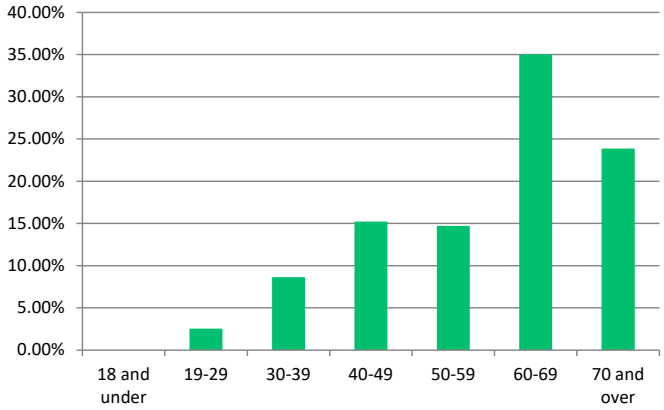
Question 2. Do you have a disability or mobility issue that makes it more challenging to get around?



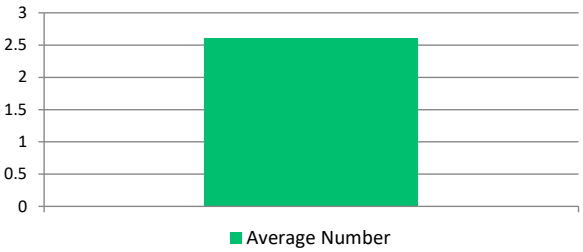
Question 3. Which role below best describes you?



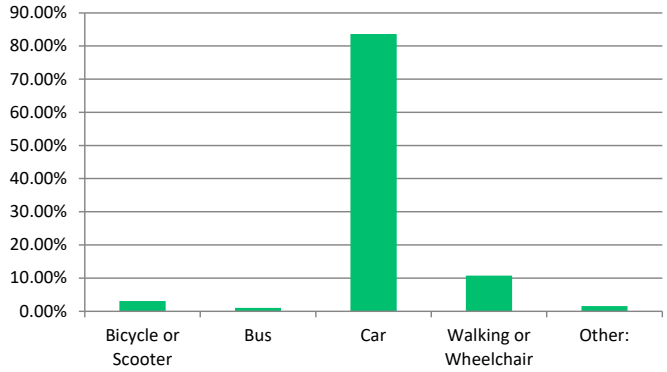
Question 4. What Is Your Age?



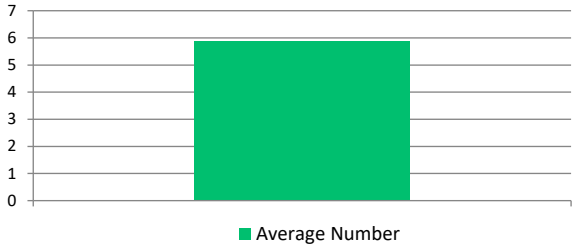
Question 5. How likely are you to travel other than in a car on a given day?(It could be walking, using a wheelchair or scooter, bicycle, bus, or something else – even just for a quick trip)



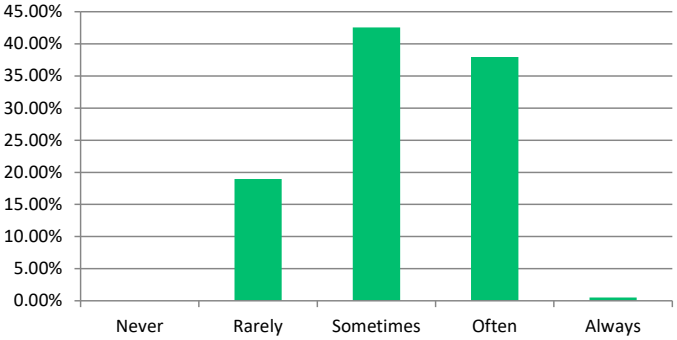
Question 6. Which mode of transportation do you use most often?



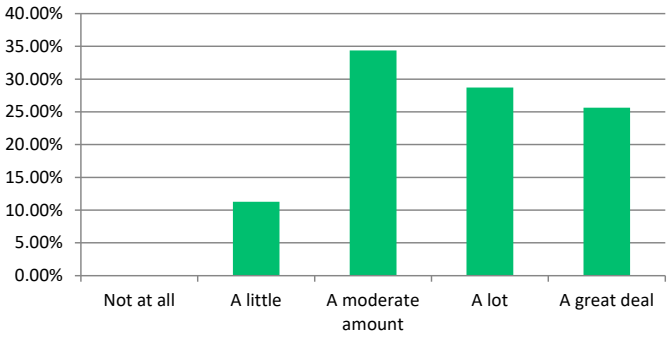
Question 7. How safe do you generally feel when you travel around Berkshire County?(In terms of stress, discomfort, or feeling at risk while traveling Berkshire roads)



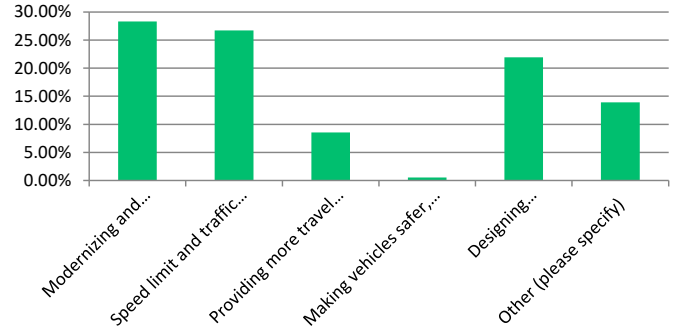
Question 8. Do you observe most people in your community following the rules of the road?



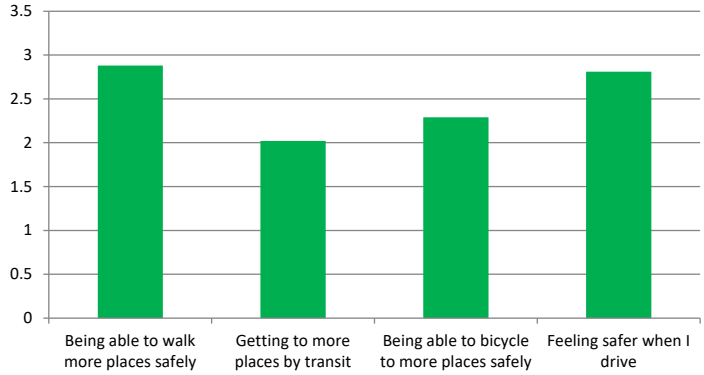
Question 9. How concerned are you about distracted driving in your community?

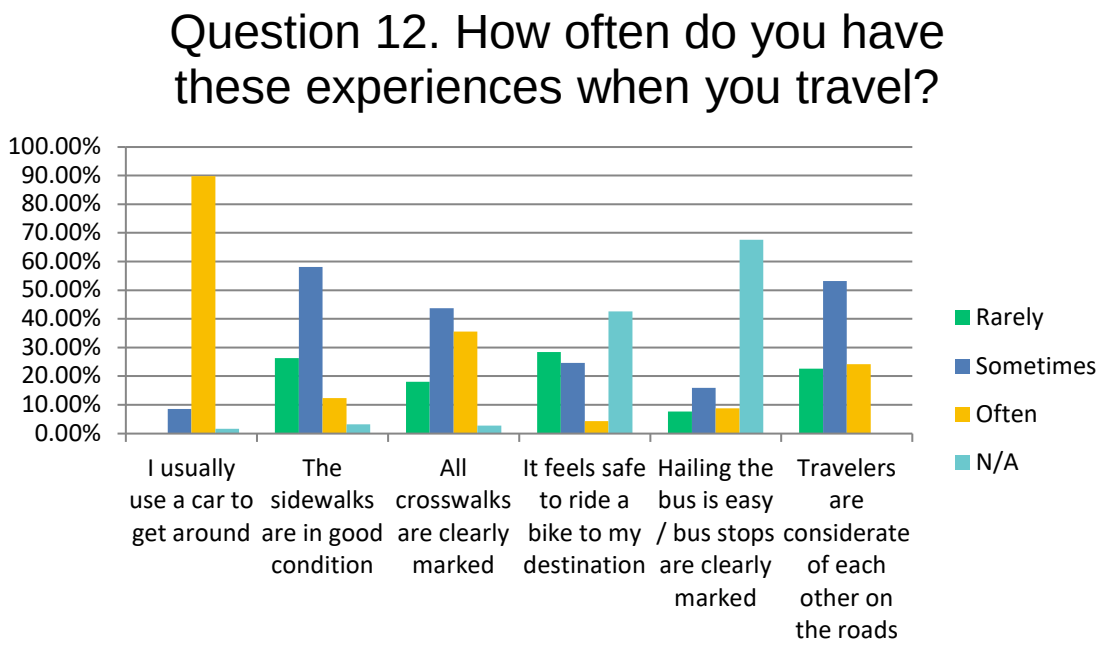


Question 10. Which of these example safety strategies would be most important to you?

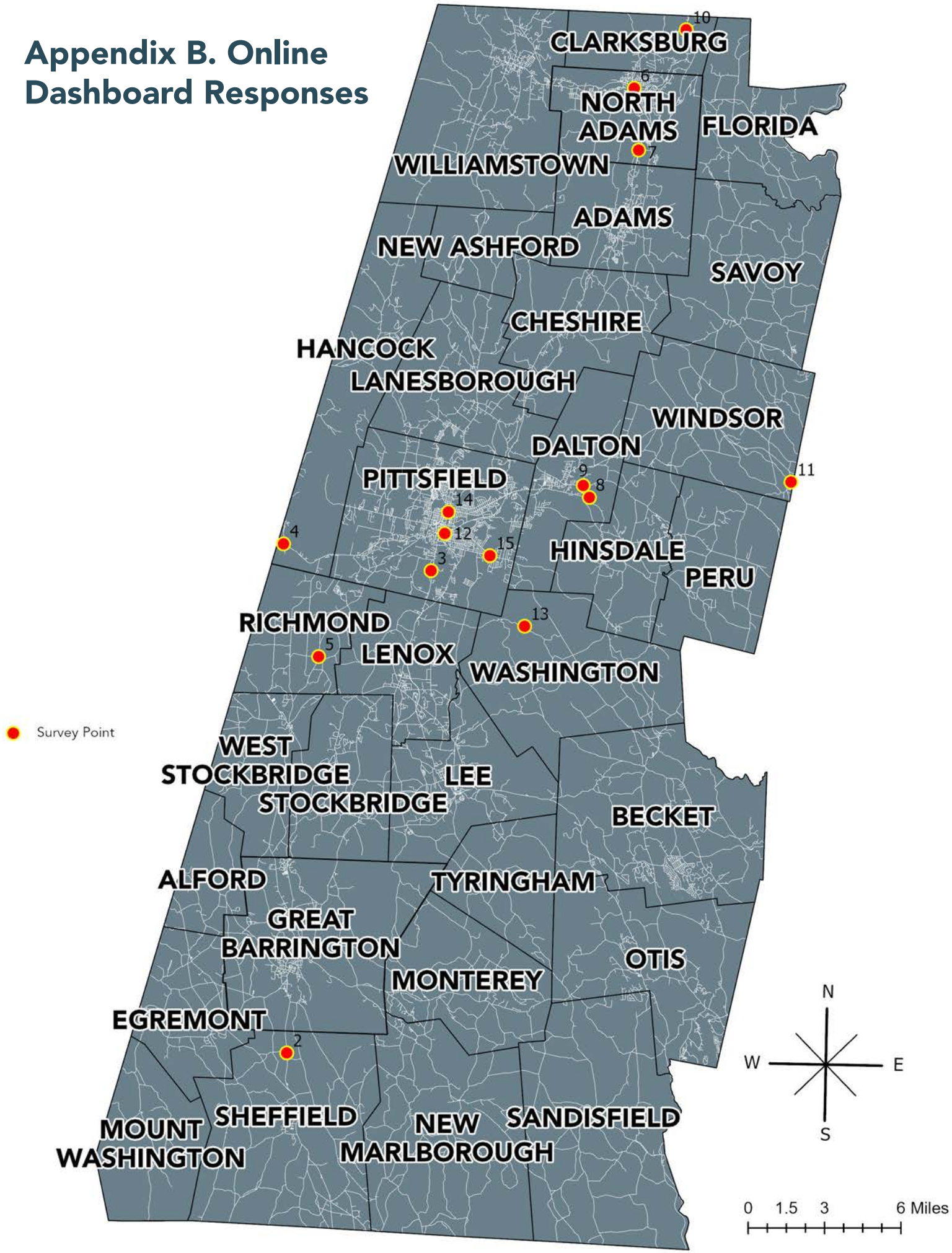


Question 11. What are your top priorities for traveling throughout the region?



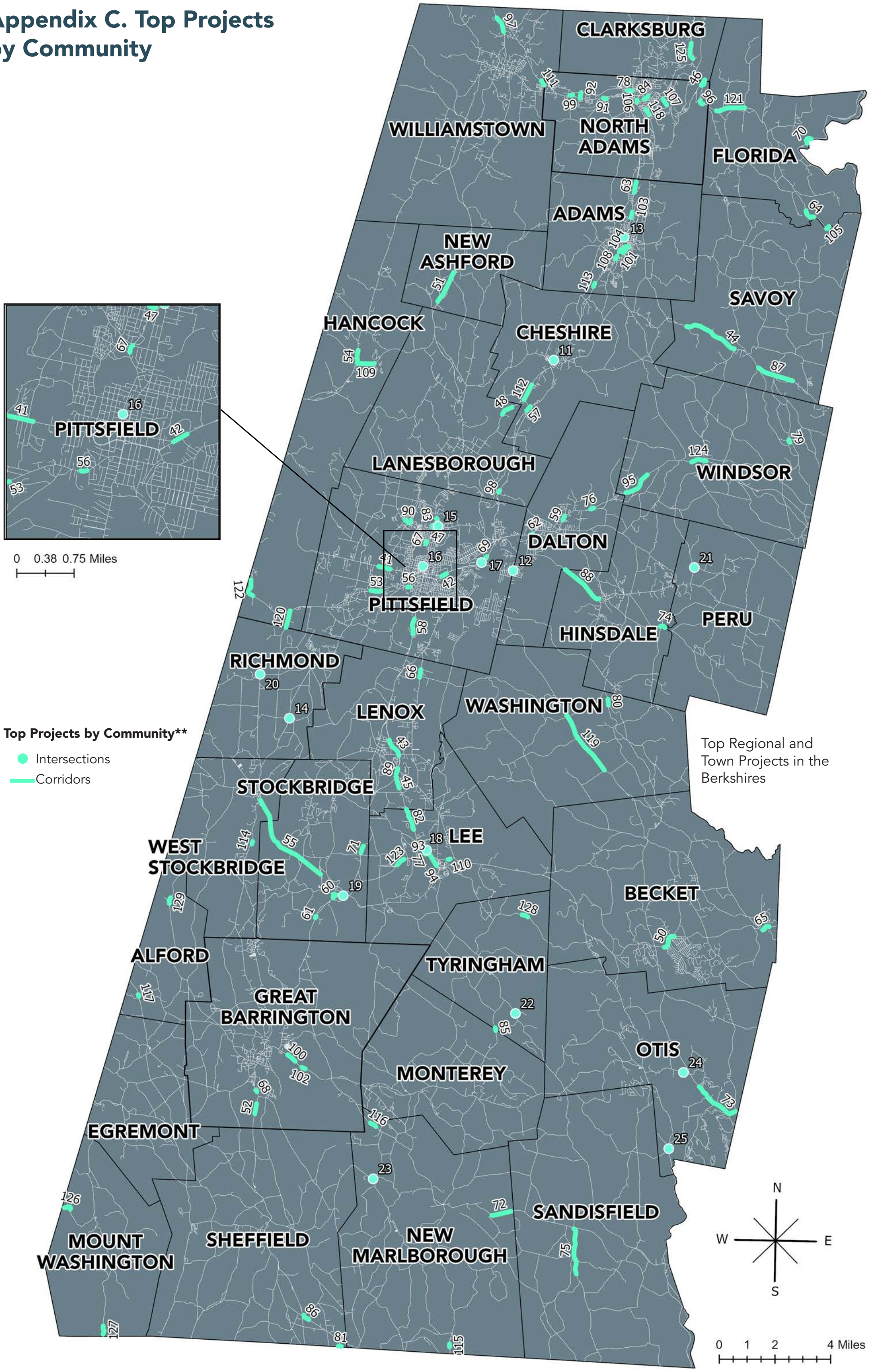

Question 12. How often do you have these experiences when you travel?
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
I usually use a car to get around
The sidewalks are in good condition
All crosswalks are clearly marked
It feels safe to ride a bike to my destination
Hailing the bus is easy / bus stops are clearly marked
Travelers are considerate of each other on the roads
Rarely
Sometimes
Often
N/A

Appendix B. Online Dashboard Responses



#	Comment Type	Comment
2	Biking Concern	Many commuters and recreational cyclists bike along this stretch of Route 7, though there is a dangerous tight bridge when leaving Sheffield heading north, putting cyclists in danger.
3	Other	Wildlife cross route 7 in this general area. Where I dropped the marker there is a tiny culvert. This should be replaced with a bridge that could allow wildlife up to the size of deer to pass under the road. With the addition of wildlife fencing.
4	Other	Dangerous exit on NW end of parking area. Could shorten this parking and put an underpass under Rt 20 to allow hikers and wildlife to pass safely under the road. jane@thebeatnews.org
5	Driving Concern	Speeding
6	Driving Concern	No green arrow to turn left onto Veterans' Memorial even though the phases give left turns the right of way for some time. Confusing and tough to know when right of way time ends.
7	Driving Concern	No green arrow to turn left onto Curran Highway even though the phases give left turns the right of way for some time. Confusing and tough to know when right of way time ends.
8	Driving Concern	Poor sightlines, lots of traffic, and no stoplights create a challenging spot at school dismissal and arrival. Drivers sometimes cede their right of way, only worsening the issue.
9	Driving Concern	Lots of traffic, and no stoplights create a challenging spot with backups at school dismissal and arrival. Drivers sometimes cede their right of way, only worsening the issue.
10	Driving Concern	Poor sightlines have caused major accidents at this intersection. While it wouldn't be appropriate to permanently lower the speed limit here, a flashing caution light may help.
11	General Safety Concern	Road layout shifts dramatically at end of hill, releasing lane directly into path of house. With it being a hill many drivers are accelerating at fast speed, reducing time to react, and with sun glare it is almost impossible to notice in time.
12	Biking Concern	E Housatonic is narrow with lots of foot traffic and restricted sight lines. There is no room for shoulders or bike lanes. It is unsafe for 30mph cars mixing with bikes; I would love to see a 20mph speed limit and other traffic calming measures.
13	Accessibility for people with disabilities concern	
14	Walking Concern	Uncontrolled crosswalk needs warning signage and preferably an RRFB. Pedestrians were waiting in the shadow of a building and difficult to see with the angle of the sun causing glare.
15	Walking Concern	No safe pedestrian crossing from Williams St to Elm in this area with blind downhill and 3-way busy intersection

Appendix C. Top Projects by Community



Corridors

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Total Injury Crashes	Fatal/Serious Injury Crashes	Fatal/Serious Crash Types
41	West Street - Tor to Roselyn	Pittsfield	.4	CIty	No	7	1	Pedestrian (1)
42	East Street - Fenn to #768	Pittsfield	.2	City	Yes	19	0	None. Minor injury include: Rear-end (9), Angle (5), Single vehicle (2), Head-on (1), Bicycle (1), Pedestrian (1)
43	Veteran's Memorial Hwy - Housatonic to Hubbard	Lenox	.7	MassDOT	Yes	8	1	Angle (1)
44	Main Road - Harrington to Windsor	Savoy	2.0	Town	Yes	11	3	Single vehicle (3)
45	Lee Road - Veteran's Memorial to Bridge	Lenox	.4	MassDOT	No	8	2	Single vehicle (2)
46	Mohawk Trail - Sharp Curve on North Adams/ Clarksburg border	North Adams/ Clarksburg	.4	MassDOT	Yes	5	1	Single vehicle (1) - motorcycle. Of all crashes, 4/5 total injuries were motorcycle
47	Mohawk Street/Memorial Drive - Wahconah to #46	Pittsfield	.2	City	Yes	5	2	Pedestrian (2)
48	Old Cheshire Road - #931 to Pettibone Farm	Lanesborough	.5	Town	No	4	2	Single vehicle (2)
49	Dean Street - Spring to Pleasant	Adams	.05	Town	Yes	1	1	Pedestrian (1)
50	Jacobs Ladder - Sir George to Wells	Becket	.6	MassDOT	Yes	2	1	Single vehicle (1)
51	New Ashford Road - Kelley to #94	New Ashford	1.2	MassDOT	No	3	2	Head on (2)
52	Main Street - #930 to #974	Great Barrington	.4	MassDOT	No	2	1	Head on (1)
53	West Housatonic Street - Oswald to Cadwell	Pittsfield	.4	MassDOT	No	7	1	Angle (1)
54	Hancock Road - Brodie Mountain to Kittle	Hancock	.5	MassDOT	No	2	2	Single vehicle (1), Angle (1)
55	West Stockbridge Road - Great Barrington to N Church	Stockbridge	3.6	MassDOT	Yes	3	1	Fatal scooter crash in 2024
56	West Housatonic Street - Hawthorne to Brenton	Pittsfield	.1	City	Yes	4	3	Head on (2), Rear-end (1)
57	South State Road - Ingalls to Farnams	Cheshire	.2	MassDOT	No	5	1	Head-on (1)
58	South Street - Country Club to North of New South Mountain Road	Pittsfield	.6	MassDOT	No	10	1	Sideswipe (1)
59	North Street - South of East Deming to Franklin	Dalton	.2	Town	No	4	3	Angle (1), Single vehicle (1), Pedestrian (1)
60	Main/South Street - Elm to Maple	Stockbridge	.3	MassDOT/Town	Yes	9	1	Single vehicle (1)
61	South Street - #10 to #12	Stockbridge	.1	MassDOT	No	2	1	Single vehicle (1)
62	Main - South to West Housatonic	Dalton	.1	MassDOT	Yes	11	0	None. Minor injury include: Head-On (4), Angle (3), Rear-end (3), Single Vehicle (1)
63	Howland - #180 to Orcutt	Adams	.4	Town	Yes	10	1	Rear-end (1)
64	Mohawk Trail - curve north of Savoy line	Florida	.4	MassDOT	No	3	1	Single vehicle (1)
65	Chester Road - Wade Inn to north of curve	Becket	.3	MassDOT	No	2	1	Single vehicle (1)
66	East Street - King William to New Lenox	Lenox	.3	Town	No	3	1	Single vehicle (1)
67	Wahconah - Elmvale to Pontoosuc	Pittsfield	.1	City	Yes	8		None. Minor injury include: Angle (3), Rear-end (2), Head-on (1), Bicycle (1), Pedestrian (1)
68	Main Street - Reed (North) to Reed (South)	Great Barrington	.1	Town	Yes	6	0	None. Minor injury include: Rear-end (2), Pedestrian (2), Angle (1), Head-on (1),
69	Merrill Road - South of Laurel to North of Larch	Pittsfield	.1	MassDOT	No	11	1	Angle (1)
70	River Road - Curve near #327	Florida	.3	Town	No	1	1	Single vehicle (1)
71	East Street - #17 to #27	Stockbridge	.3	MassDOT	No	3	1	Unknown (1)

Corridors (continued)

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Total Injury Crashes	Fatal/Serious Injury Crashes	Fatal/Serious Crash Types
72	Sandisfield Road - Idle Hour to Forest	New Marlborough	.7	Town	No	2	1	Single vehicle (1)
73	East Otis Road - North of Pease to West of Algerie	Otis	1.7	MassDOT	No	8	2	Single vehicle (2)
74	Middlefield Road - East Washington to Peru/ Hinsdale Town Line	Hinsdale	.2	Town	No	1	1	Head-on (1)
75	New Hartford Road - North of Gremler Rd to Sandisfield Rd	Sandisfield	1.7	Town	No	2	1	Single vehicle (1)
76	North Street - Near Holiday Cottage Road	Dalton	.1	MassDOT	No	2	1	Head-on (1)
77	Main Street - Academy to Park	Lee	.3	Town	Yes	9		None. Minor injuries include: Rear-end (4), Angle (1), Head-on (1), Single vehicle (1), Pedestrian (2)
78	River Street - Veazie to Marshall	North Adams	.2	City	No	10		None. Minor injuries include: Angle (6), Rear-end (2), Head-on (1), Single vehicle (1)
79	Windigo Road - Windsor Jambs to #140	Windsor	.1	Town	No	1	1	Single vehicle (1)
80	North Washington State Road - Newberry to Watson	Washington	.2	MassDOT	No	1	1	Single vehicle (1)
81	Canaan Road - Curve west of Clayton Road	Sheffield	.1	MassDOT	No	1	1	Head-on (1)
82	Laurel Street - Lenox/Lee Town Line to Debra	Lee	.8	MassDOT	No	11	1	Head-on (1)
83	North Street - Clifford to Taconic Island	Pittsfield	.1	City	Yes	5	1	Bicycle (1)
84	Miner - East Main to Union	North Adams	.2	City	Yes	4	1	Pedestrian (1)
85	Monterey Road/Tyringham Road near Monterey/ Tyringham Town Line	Town	.1	Town	No	1	1	Pedestrian (1)
86	East Stahl Road - Curve around Sheffield Business Park	Sheffield	.3	Town	No	1	1	Single vehicle (1)
87	Main Road - River to Old Main	Savoy	1.3	Town	Yes	4	2	Angle (1), Single Vehicle (1)
88	Robinson Road - Dalton/Hinsdale Town Line to Longview	Hinsdale	1.7	Town	Yes	1	1	1 Fatal Crash since 2022 - Single vehicle (1) - tree
89	Veteran's Memorial Hwy - North of Walker to Lee	Lenox	.2	MassDOT/Town	Yes	11		None. Minor injuries include: Angle (7), Rear-end (3), Head-on (1)
90	Pecks Road/Highland Ave - Lakeway to McAlister	Pittsfield	.3	City	No	6	1	Single vehicle (1)
91	West Main Street - Avon to West End	North Adams	.1	City	Yes	3	1	Single vehicle (1)
92	Protection Avenue - Massachusetts to State	North Adams	.2	City	Yes	5	1	Rear-end (1)
93	Park Street - Main to Orchard	Lee	.2	MassDOT	Yes	5	0	None. Minor injuries include: Rear-end (2), Angle (1), Pedestrian (2)
94	Housatonic Street - Orchard to I-90	Lee	.4	MassDOT	Yes	8	0	None. Minor injuries include: Rear-end (4), Single vehicle (2), Angle (1), Head-on (1)
95	Berkshire Trail - Flintstone to #66	Windsor	1.1	MassDOT	No	4	2	Single vehicle (2)
96	Mohawk Trail - Curve by Shelf Road	North Adams	.2	MassDOT	Yes	2	1	Single vehicle (1)
97	Simonds Road - #1025 to Lindley	Williamstown	.6	MassDOT	No	8	1	Sideswipe (1)
98	Cheshire Road - Gulf to Old State	Lanesborough	.1	MassDOT	No	8	1	Single vehicle (1)

Corridors (continued)

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Total Injury Crashes	Fatal/Serious Injury Crashes	Fatal/Serious Crash Types
99	State Road - #656 to Phelps	North Adams	.1	MassDOT	Yes	5	1	Rear-end (1)
100	State Road - #274 to Hebert's	Great Barrington	.4	MassDOT	No	3	2	Single vehicle (1), Angle (1)
101	Summer Street - Center to Cherry	Adams	.3	Town	Yes	4	1	Angle (1)
102	State Road - by East Mountain Road	Great Barrington	.1	MassDOT	No	2	2	Single vehicle (1)
103	Columbia Street - Renfrew to Lime Street	Adams	.2	Town	Yes	8	0	None. Minor injuries include: Rear-end (4), Single vehicle (4)
104	Commercial Street - Center to Liberty	Adams	.1	City	Yes	8	0	None. Minor injuries include: Rear-end (6), Angle (1), Single vehicle (1)
105	Mohawk Trail - Curve by Black Brook Road	Florida/Savoy	.1	MassDOT	Yes	3	1	Single vehicle (1)
106	Ashland Street - Summer to Quincy	North Adams	.1	City	Yes	3	1	Head-on (1)
107	Mohawk Trail - East Main to Mohawk Forest	North Adams	.3	MassDOT	Yes	5	0	None. Minor injuries include: Angle (4), Bicycle (1)
108	Commercial Street - Glen to Edmunds	Adams	.1	Town	Yes	6	0	None. Minor injuries include: Rear-end (3), Angle (2), Head-on (1)
109	Brodie Mountain Road - Hancock to Corey	Hancock	.6	Town	No	3	1	Angle (1)
110	Maple Street - Baseball Field to #445	Lee	.1	Town	No	3	1	Single vehicle (1)
111	North Hoosac Road - #100 to Williamstown/North Adams Line	Williamstown	.2	Town	No	3	1	Single vehicle (1)
112	Lanesborough Road - Shadowland Cove to Farnam's	Cheshire	.6	Town	No	2	1	Single vehicle (1)
113	Grove Street - #169 to #224	Adams	.1	MassDOT	Yes	4		None. Minor injuries include: Single vehicle (4)
114	Great Barrington Road - #105 to #107	West Stockbridge	.1	Town	No	2	1	Single vehicle (1)
115	Norfolk Road near Haymeadow Pond	New Marlborough	.1	Town	No	1	1	Single vehicle (1)
116	Mill River Great Barrington Road - near Lake Road	New Marlborough	.2	Town	No	2	1	Single vehicle (1)
117	Green River Valley Road north of Crooked Hill Road	Alford	.1	Town	No	1	1	Sideswipe (1)
118	Church Street - By Berkshire Towers and MCLA	North Adams	.2	Town	Yes	3	0	None. Minor injuries include: Rear-end (2), Angle (1)
119	Washington Mountain Road - Beach to Frost	Washington	2.4	Town	No	4	0	None. Minor injuries include: Single vehicle (3), Sideswipe (1)
120	Richmond Road - Hancock Town Line to Lebanon Mountain	Hancock	.6	Town	No	2	0	None. Minor injuries include: Single vehicle (2)
121	Mohawk Trail - Shaft to Tilda Hill	Florida	1.0	MassDOT/Town	No	4	0	None. Minor injuries include: Rear-end (1), Angle (1), Single vehicle (2)
122	Route 20 - South of Birch Grove to Taconic Crest	Hancock	.7	MassDOT	No	3	0	None. Minor injuries include: Single vehicle (2), Head-on (1)
123	Stockbridge Road - Devon to George	Lee	.3	Town	No	2	0	None. Minor injuries include: Angle (1), Single vehicle (1)
124	Berkshire Trail - #185 to Peru	Windsor	.5	MassDOT	No	2	0	None. Minor injuries include: Angle (1), Single vehicle (1)
125	River Road - #661 - #616	Clarksburg	.6	MassDOT	No	2	0	None. Minor injuries include: Single vehicle (2)
126	Falls Road north of Bish Bash Falls	Mount Washington	.3	Town	No	1	0	None. Minor injuries include: Head-on (1)

Corridors (continued)

#	Corridor	City/Town	Length (mi)	Jurisdiction	EJ Community	Total Injury Crashes	Fatal/Serious Injury Crashes	Fatal/Serious Crash Types
127	East Street north of Connecticut Border	Mount Washington	.3	Town	No	1	0	None. Minor injuries include: Single vehicle (1)
128	Goose Pond Road around #101	Tyringham	.2	Town	No	1	0	None. Minor injuries include: Single vehicle (1)
129	West Road - near Harrison Calkin's Road	Alford	.2	Town	No	1	0	Single vehicle (1)

Intersections

#	Intersection	City/Town	Jurisdiction	EJ Community	Total Injury Crashes	Fatal/Serious Injury Crashes	Fatal/Serious Crash Types
11	North Street & Church Street	Cheshire	MassDOT/Town	No	2	2	Head-on (1), Single vehicle (1)
12	East Street & Hubbard Avenue	Pittsfield	City	No	6	1	Single vehicle (1)
13	Columbia Street & Valley Street	Adams	Town	Yes	6	0	None. Minor injuries include: Rear-end (4), Sideswipe (1), Bicycle (1)
14	Lenox Road & Swamp Road	Richmond	Town	No	7	0	None. Minor injuries include: Angle (6), Sideswipe (1)
15	North Street & Crane Avenue	Pittsfield	City	No	5	1	Single vehicle (1)
16	Union Street & Center Street	Pittsfield	City	Yes	3	1	Single vehicle (1)
17	Merrill Road & Junction Road	Pittsfield	MassDOT/Town	No	5	0	None. Minor injuries include: Angle (3), Single vehicle (2)
18	Franklin Street & High Street	Lee	Town	Yes	2	0	None. Minor injuries include: Angle (1), Bicycle (1)
19	East Street & Main Street	Stockbridge	MassDOT/Town	Yes	3	0	None. Minor injuries include: Rear-end (2), Sideswipe (1)
20	State Road & Summit Road	Richmond	MassDOT/Town	No	1	0	None. Minor injuries include: Single vehicle (1)
21	August Smith Road - Curve by #35	Peru	Town	No	1	0	None. Minor injuries include: Single vehicle (1)
22	Fenn Road & Main Road	Tyringham	Town	No	1	0	None. Minor injuries include: Rear-end (1)
23	County Road & Mill River Great Barrington Road	New Marlborough	Town	No	1	0	None. Minor injuries include: Single vehicle (1)
24	East Otis Road & Bryant Road	Otis	MassDOT	No	1	0	None. Minor injuries include: Single vehicle (1)
25	Cold Spring Road & South Main Road	Otis	MassDOT/Town	No	1	0	None. Minor injuries include: Single vehicle (1)