



# 2025

## Strategic Highway Safety Plan



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Colorado Division**

May 29, 2025

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Lakewood, Colorado 80228  
720-963-3000

Shoshana Lew  
Executive Director  
Colorado Department of Transportation  
2829 W. Howard Place  
Denver, CO 80204

**Subject: Colorado Strategic Highway Safety Plan (SHSP) 2025 Update**

Dear Ms. Lew:

The Federal Highway Administration (FHWA) Colorado Division Office received the 2025 Colorado Strategic Highway Safety Plan (SHSP). We are pleased to approve the process through which the updated SHSP was developed. Based on our Division's involvement in the development of the SHSP and the review of the final Plan, we are confident that Colorado has followed a process that is consistent with the requirements as outlined below. Ou

- Conferred with various multi-disciplinary Federal, State, local and Tribal safety stakeholders, considered their input prior to decision making, and routinely informed them about actions taken regarding STSP update development.
- Reached out and provided the opportunity for consultation to a variety of statewide safety stakeholders in the State.
- Used the best available safety data and safety analysis tools to identify critical highway safety issues and determine strategies for safety improvements on all public roads.
- Included emphasis areas and strategies based on data with the greatest potential to reduce fatalities and serious injuries.
- Gave priority to strategies that significantly reduce fatalities and serious injuries in the SHSP emphasis areas and considered systemic improvements and low-cost safety countermeasures.
- Evaluated current SHSP emphasis areas, goals, strategies and actions to determine their effectiveness and incorporate the lessons learned in the STSP update development process.
- Included STSP evaluation process and mechanisms for regularly tracking implementation and monitoring progress.
- Set goals and measurable objectives to track and monitor the status of STSP implementation efforts and monitor progress in each of the established STSP emphasis areas.
- Considered highway safety elements of engineering, education, enforcement, and emergency medical services (the 4 E's) and included strategies to address the State's emphasis areas.
- Coordinated with other on-going statewide planning processes and considered how the STSP emphasis areas compare with the priorities of the other plans or processes.
- Included the State definition of High Risk Rural Roads (HRRR).
- Signed by the Governor or his representative for the State of Colorado.

We look forward to receiving the Action Plan this fall with more details about CDOT's strategies to implement the Plan.

If you have any questions, please contact Charlie Hanf at [Charles.hanf@dot.gov](mailto:Charles.hanf@dot.gov).

Sincerely,

**JOHN MARTIN  
CATER** Digitally signed by JOHN  
MARTIN CATER  
Date: 2025.05.29  
15:56:25 -06'00'

John M. Cater, P.E.  
Division Administrator

**Attachments:**

2025 Strategic Highway Safety Plan (SHSP)

**cc:**

Charlie Hanf, FHWA Acting Safety Program Manager  
Keith Stefanik, CDOT Chief Engineer  
San Lee, CDOT Traffic Safety & Engineering Services  
Melodie Clayton, Traffic Safety Performance Manager  
Gina Espinosa-Salcedo, NHTSA Regional Director



# CDOT Executive Director Letter

Dear Fellow Coloradans and Visitors,

I am pleased to present the 2025 Colorado Strategic Highway Safety Plan (SHSP). This plan represents a comprehensive and collaborative effort among public agencies, private sector organizations, and advocacy groups dedicated to transportation safety across the state. Through data-driven analysis, cooperative discussions, and the expertise of diverse stakeholders, the SHSP identifies actionable strategies and achievable goals to reduce fatalities and serious injuries throughout Colorado's transportation system.

**Colorado's transportation safety efforts are showing positive results. After a peak of 764 traffic fatalities in 2022, we have seen a decline over each of the past two years.**

In 2024, there were 687 fatalities—a 10% reduction from the 2022 peak. Consistent with the 10-year Statewide Plan and Policy Directive 14, the SHSP identifies a goal of a five percent annual reduction in fatalities and serious injury crashes.

Colorado is committed to providing the best multi-modal transportation system that most effectively and safely moves people, goods, and information. Every agency and jurisdiction plays a crucial role in improving transportation safety, contributing through policy, planning, funding, design, construction, operations, maintenance, and post-crash care to ensure the well-being of all travelers.

The SHSP emphasizes the implementation of proven safety countermeasures, targeted and effective strategy deployment, integration of local agency safety planning, and adoption of innovative technologies that have been demonstrated to reduce fatalities and serious injuries.

I extend my gratitude to the hundreds of stakeholders across Colorado who contributed to the development of this SHSP. Achieving our vision of zero deaths and serious injuries requires a collective commitment, including yours as a user of the transportation system. Please join CDOT and our safety partners in supporting and implementing the SHSP to prevent crashes and save lives on our roadways.

Sincerely,

**Sally Chafee**

Digitally signed by Sally Chafee  
Date: 2025.05.19 13:43:02  
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Sally Chafee, Acting Executive Director  
For: Shoshana Lew, Executive Director  
Colorado Department of Transportation



# Partner Pledge & Commitment to Safety

The 2025 Colorado Strategic Highway Safety Plan (SHSP) represents a unified commitment to eliminate traffic fatalities and serious injuries so that every person—regardless of how they travel—can reach their destination safely. Developed through a data-driven, collaborative process, this plan reflects the dedication of transportation safety professionals and stakeholders across Colorado.

As committed safety partners, we stand in support of the SHSP and Colorado's broader transportation safety initiatives. We believe in a future where zero deaths and serious injuries regardless of travel mode is a reality. Achieving this future requires a steadfast commitment to growing Colorado's transportation safety culture within organizations and among the public. Foundational to this effort are the following strategic pillars of partnership:

- » **Shared ownership** - responsibility for improving transportation safety must be shared.
- » **Mutual agency** - each agency has autonomy and freedom to pursue mutual transportation safety objectives as befits their situation.
- » **Accountability** - the problem is urgent, and therefore transparency and accountability are necessary.

Collectively, we pledge to do our part to reach the SHSP's goal of reducing fatalities and serious injuries by five percent per year or 22.6% over the five-year life of the plan. We commit to:

- » Lead strategies and action steps relevant to our agency or organization;
- » Engage in events, meetings, and initiatives that support the SHSP's success such as safety-related committee meetings, safety summits, and other public and internal initiatives that are focused on improving transportation safety;
- » Provide resources and expertise to advance the SHSP's implementation; and
- » Advocate for a culture of safety by promoting the SHSP whenever possible.

Together, as the leadership of the Colorado Department of Transportation, Colorado State Patrol, Colorado Department of Revenue, Colorado Department of Public Health and Environment, the Federal Highway Administration, and the National Highway Traffic Safety Administration, we reaffirm our dedication to a safer Colorado. By signing below, we commit to this vision and the actions necessary to make it a reality.

**Sally Chafee**

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Date: 2025.05.19 13:43:18  
-06'00'

Sally Chafee, Acting Executive Director  
For: Shoshana Lew, Executive Director  
Colorado Department of Transportation



Matthew C Packard  
2025.05.19 16:12:33 -06'00'

Colonel Matthew Packard, Chief  
Colorado State Patrol

**Meghan Tanis**

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Meghan Tanis, Deputy Executive Director  
For: Heidi Humphreys, Executive Director  
Colorado Department of Revenue

**Jill Hunsaker Ryan**

Digitally signed by Jill Hunsaker  
Ryan  
Date: 2025.05.23 16:53:53 -06'00'

Jill Hunsaker Ryan, MPH, Executive Director  
Colorado Department of Public Health and Environment

# Plan Acknowledgment

The 2025 Colorado Strategic Highway Safety Plan (SHSP) is a result of the collaboration of safety stakeholders from across the state. Partners representing diverse organizations and agencies developed strategies and supporting actions to reduce crashes and the resulting fatalities and serious injuries. **Thank you to the representatives from the following agencies for their support in the 2025 SHSP development and for their continued support during implementation over the next five years.**

- » Adams County
- » American Automobile Association (AAA) Colorado
- » Archuleta County
- » Bicycle Colorado
- » Bike Together
- » Boulder County
- » CDOT Highway Safety Office
- » CDL Mountain Training
- » Central Front Range Transportation Planning Region
- » City of Aspen
- » City of Aurora
- » City of Cortez
- » City of Dacono
- » City of Denver
- » City of Fort Collins
- » City of Golden
- » City of Greeley
- » City of Lakewood
- » City of Loveland
- » City of Pueblo
- » City of Thornton
- » Colorado Behavioral Health Administration
- » Colorado Commission of Indian Affairs
- » Colorado Contractors Association
- » Colorado Counties Inc.
- » Colorado Department of Education
- » Colorado Department of Human Services
- » Colorado Department of Motor Vehicles
- » Colorado Department of Public Health and Environment
- » Colorado Department of Revenue
- » Colorado Department of Transportation
- » Colorado Governor's Office
- » Colorado Judicial Branch
- » Colorado Local Technical Assistance Program
- » Colorado Municipal League
- » Colorado Motor Carriers Association
- » Colorado State Patrol
- » County Sheriff Association
- » Colorado Task Force on Drunk and Impaired Driving (CTFDID)
- » Colorado Young Drivers Alliance
- » County Sheriffs of Colorado
- » Denver Regional Council of Governments
- » Denver Streets Partnership
- » Douglas County
- » Eagle County
- » El Paso County
- » East Central Council of Governments
- » Eastern Transportation Planning Region
- » Federal Highway Administration
- » Federal Motor Carrier Safety Administration

- » Grand Valley Transportation Planning Region
- » Gunnison Valley Transportation Planning Region
- » Health Promotion Partner
- » Intermountain Transportation Planning Region
- » La Plata County
- » La Plata County Sheriff
- » Larimer County
- » Mesa County
- » Mothers Against Drunk Driving
- » Motorcycle Operator Safety Advisory Board
- » Montezuma County
- » National Highway Traffic Safety Administration
- » National Roadway Safety Strategy
- » National Workzone Safety
- » North Front Range Metropolitan Planning Organization
- » Northeast Colorado Council of Governments
- » Northwest Transportation Planning Region
- » Pikes Peak Area Council of Governments
- » Pueblo Area Council of Governments
- » Pitkin County
- » Region 10 League for Economic Assistance and Planning
- » Safe Routes to School
- » Safety Circuit Rider Program
- » San Luis Valley Development Resources Group
- » San Luis Valley Transportation Planning Region
- » School Community Youth Collaborative
- » Share the Road
- » South Central Council of Governments
- » Southeast Colorado Enterprise Development
- » Southern Colorado Institute of Transportation Technology
- » Southern Ute Indian Tribe
- » Southwest Colorado Council of Governments
- » Statewide Traffic Records Advisory Committee
- » Town of Fountain
- » Town of Minturn
- » Transportation Commission of Colorado
- » University of Colorado Health
- » Upper Front Range Transportation Planning Region
- » Vision Zero Boulder
- » Vision Zero Denver
- » Weld County
- » Western Colorado Contractors Association

Thank  
You



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# List of Acronyms

|               |                                                                    |               |                                                          |
|---------------|--------------------------------------------------------------------|---------------|----------------------------------------------------------|
| <b>AAA</b>    | American Automobile Association                                    | <b>LEP</b>    | Limited English Proficiency                              |
| <b>AASHTO</b> | American Association of State Highway and Transportation Officials | <b>LRTP</b>   | Long Range Transportation Plan                           |
| <b>ATS</b>    | Advancing Transportation Safety                                    | <b>LOSS</b>   | Level of Service of Safety                               |
| <b>BAC</b>    | Blood Alcohol Concentration                                        | <b>LTAP</b>   | Local Technical Assistance Program                       |
| <b>BIPOC</b>  | Black, Indigenous and Persons of Color                             | <b>MADD</b>   | Mothers Against Drunk Driving                            |
| <b>CDOT</b>   | Colorado Department of Transportation                              | <b>NCDOT</b>  | North Carolina Department of Transportation              |
| <b>CDPHE</b>  | Colorado Department of Public Health and Environment               | <b>NHTSA</b>  | National Highway Traffic Safety Administration           |
| <b>CMV</b>    | Commercial Motor Vehicles                                          | <b>PBCAT</b>  | Pedestrian and Bicycle Crash Analysis Tool               |
| <b>CPS</b>    | Child Passenger Safety                                             | <b>PD-14</b>  | Policy Directive 14                                      |
| <b>CSP</b>    | Colorado State Patrol                                              | <b>PIARC</b>  | World Road Association                                   |
| <b>CVSP</b>   | Commercial Vehicle Safety Plan                                     | <b>RPO</b>    | Regional Planning Organization                           |
| <b>DMV</b>    | Department of Motor Vehicles                                       | <b>RSA</b>    | Road Safety Audit                                        |
| <b>DOR</b>    | Department of Revenue                                              | <b>SADD</b>   | Students Against Drunk Driving                           |
| <b>DUI</b>    | Driving Under the Influence                                        | <b>SEMTAC</b> | State Emergency Medical Trauma Services Advisory Council |
| <b>EMS</b>    | Emergency Medical Services                                         | <b>SHSP</b>   | Strategic Highway Safety Plan                            |
| <b>ERSI</b>   | Emergency Responder Safety Institute                               | <b>SME</b>    | Subject Matter Expert                                    |
| <b>FARS</b>   | Fatality Analysis Reporting System                                 | <b>SSA</b>    | Safe System Approach                                     |
| <b>FIRST</b>  | Fatality and Injury Reporting System Tool                          | <b>STSP</b>   | Strategic Transportation Safety Plan (2020)              |
| <b>FHWA</b>   | Federal Highway Administration                                     | <b>TDI</b>    | Transportation Disadvantaged Index                       |
| <b>GDL</b>    | Graduated Driver Licensing                                         | <b>TIM</b>    | Traffic Incident Management                              |
| <b>GIS</b>    | Geographic Information System                                      | <b>VMT</b>    | Vehicle Miles Traveled                                   |
| <b>HRRR</b>   | High Risk Rural Roads                                              | <b>VRU</b>    | Vulnerable Road User                                     |
| <b>HSIP</b>   | Highway Safety Improvement Program                                 | <b>WIGS</b>   | Wildly Important Goals                                   |
| <b>3HSP</b>   | Triennial Highway Safety Plan                                      |               |                                                          |
| <b>IIJA</b>   | Infrastructure Investment and Jobs Act                             |               |                                                          |



# Executive Summary

The 2025 Strategic Highway Safety Plan (SHSP) represents a comprehensive, data-driven approach to enhancing roadway safety in Colorado, with the goal of reducing fatalities and serious injuries statewide. Developed collaboratively by key state agencies and other safety stakeholders, the SHSP reflects the shared responsibility of all Coloradans to improve safety of the transportation system for all users.

Stakeholder engagement played a crucial role in shaping the SHSP. From the Steering Committee and Subject Matter Experts to the hundreds of workshop participants and online contributors, diverse voices informed the plan's development. Every piece of feedback—whether gathered through meetings, workshops, emails, or online tools—helped refine strategies, enhance data analysis, and identify additional stakeholders to engage. The SHSP reflects this collective effort, resulting in a comprehensive and inclusive approach to improve roadway safety in Colorado. By identifying 25 Focus Areas across five Emphasis Areas that also correspond with the Safe System Approach—the plan sets a clear path toward achieving the Vision for Colorado's future: **Zero deaths and serious injuries so all people using any transportation mode arrive at their destination safely.**

## Emphasis Areas



Safety  
Culture



Safe  
Driving



Safe  
People



Safe  
Roads



Post-Crash  
Care



Focus Areas are contexts or behaviors associated with fatal and serious injury crashes and are categorized based on their contribution to the number of fatalities and serious injuries, recent observed trends (improving, staying about the same, or worsening), or the relation to safety culture. These categories inform related strategies which are specific methods to improve safety as well as the implementation of actions over the next five years. The Focus Area categories are:

- » **Safety Culture** grows shared values and beliefs supportive of a safer transportation system,
- » **High-Impact** targets the top contributing factors to fatalities and serious injuries,
- » **Emerging and Monitoring** areas have increasing fatality and serious injury trends, and
- » **Double Down on Success** builds on the success of existing programs/policies.



Figure ES-1: Focus Area Categorization

The SHSP aims to achieve a five percent year-over-year reduction in fatalities and serious injuries. Achieving these targets requires a coordinated effort across multiple agencies, a focus on implementing proven safety countermeasures, and an ongoing commitment to cultivating a statewide safety culture.

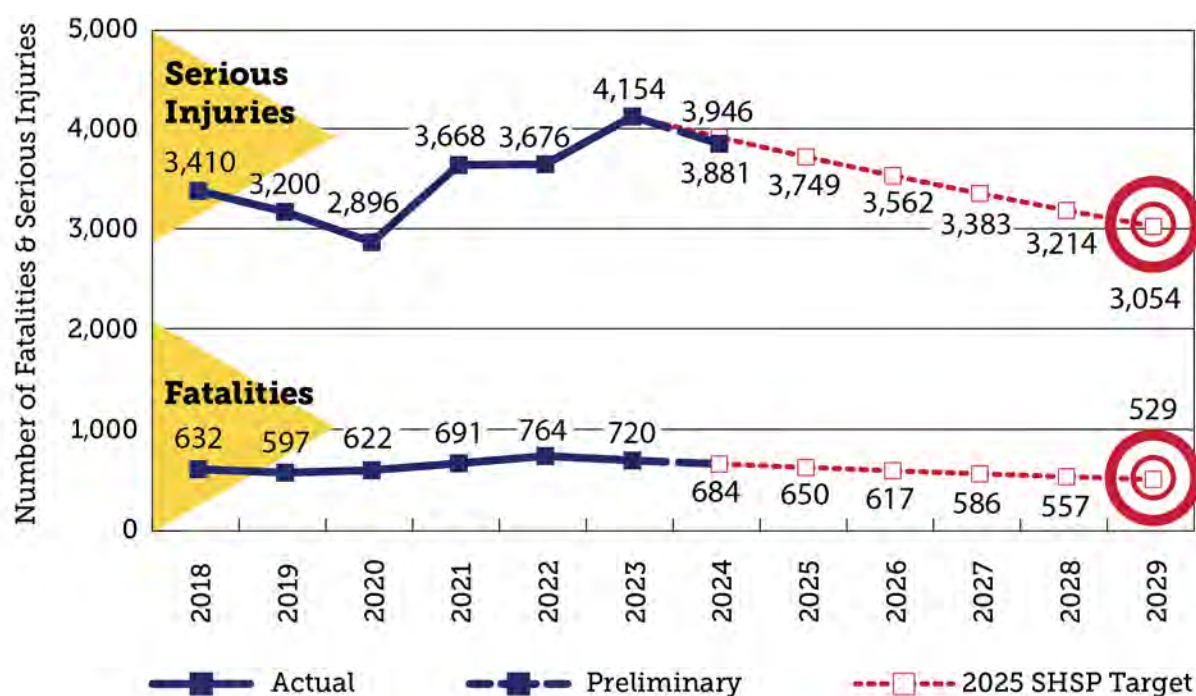


Figure ES-2: Traffic Fatalities and Serious Injuries with Future Targets (5% Per Year Reduction)

In addition to the implementation of the strategies identified in this SHSP, the Advancing Transportation Safety Initiative (ATS)—a collaboration of state and local agency safety advocates led by CDOT’s Safety Champion—will continue to seek out innovative ways to achieve the state’s goal of reducing traffic fatalities and serious injuries. Through collaboration, strategic investments, and focused implementation, Colorado will continue to make strides toward achieving zero deaths and serious injuries for all transportation system users.





# Chapter 1: Introduction

Colorado updates its SHSP every five years to align with changing trends and best practices and to remain eligible for Federal Highway Safety Improvement Program (HSIP) funding (a core federal-aid program to reduce fatalities and serious injuries on all public roads, including non-state and tribal roads). This chapter introduces the plan's Vision and Mission, organization, development, goals, implementation, and alignment with other plans.

## SHSP Vision and Mission

### Vision

The future of Colorado is zero deaths and serious injuries so all people using any transportation mode arrive at their destination safely.

### Mission

Colorado agencies and partners will cooperatively implement strategies that eliminate transportation system fatalities and serious injuries.

The Vision and Mission for Colorado's Strategic Highway Safety Plan (SHSP) were established by the participants of Colorado's Advancing Transportation Safety (ATS) initiative (a statewide collaboration born from the state's previous SHSP) with support and approval by the SHSP's Steering Committee, which includes representatives from:

- » Colorado Department of Transportation (CDOT).
- » Colorado State Patrol.
- » Colorado Department of Revenue.
- » Colorado Department of Public Health and Environment.
- » National Highway Traffic Safety Administration.
- » Federal Highway Administration.
- » Additional state agencies, advocacy groups, and special interest organizations.

The plan's Vision and Mission align with Vision Zero, a multinational effort aiming to eliminate fatalities and serious injuries on transportation systems. The Vision and Mission recognize that numbers of fatalities and serious injuries are not just statistics—they reflect the lives of real people forever changed by crashes. Even one life lost or altered is too many.



# SHSP - Bridging Vision & Mission With Action

An SHSP is defined by the Federal Highway Administration (FHWA) as a statewide-coordinated safety plan that provides a comprehensive framework for reducing fatalities and serious injuries on public roads. In essence, it defines the strategies that prioritize and focus actions to achieve the Vision and Mission.

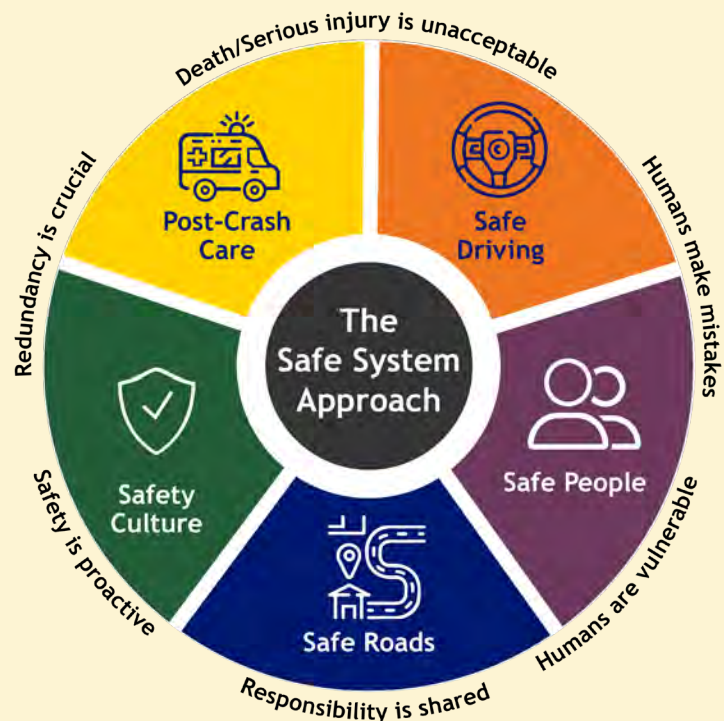
Colorado's SHSP is a data-driven, five-year plan that identifies multidisciplinary strategies (also referred to as countermeasures) to address safety priorities identified by reviewing data and gathering input from key stakeholders. The organization of the SHSP reflects Colorado's adoption of the Safe System Approach which includes five Emphasis Areas (Safety Culture, Safe Driving, Safe People, Safe Roads, and Post-Crash Care) and six principles:

- » Death and Serious Injuries are Unacceptable.
- » Humans Make Mistakes.
- » Humans Are Vulnerable.
- » Responsibility is Shared.
- » Safety is Proactive.
- » Redundancy is Crucial.

## The Five Emphasis Areas and Six Principles of the Safe System Approach

The Safe System Approach (SSA) is recognized nationally and internationally as an effective way to reduce deaths and serious injuries in transportation systems by addressing both human mistakes and human vulnerability. It promotes the design and implementation of transportation networks that prioritize redundant layers of protection for roadway users.

SSA's holistic and comprehensive nature encourages safety professionals to expand their influence beyond roadway design and beyond traditional transportation agencies. Additionally, the SSA prioritizes serious and fatal injuries (as opposed to all crashes), encouraging professionals to target severity reduction as a mechanism to reduce fatalities and serious injuries.



The SHSP follows the FHWA process model of planning, implementation, reporting, and evaluation (Figure 1-1). The remainder of this section describes key activities that shaped the 2025 SHSP.



Figure 1-1: FHWA Process Model

Figure 1-2 summarizes the SHSP planning process. It began by gathering agreement among key leaders on the process and desired outcomes. This was followed by stakeholder engagement with local, regional, state, federal, non-profit, and public- and private-sector organizations, using a robust and inclusive approach. These stakeholders, along with subject matter experts, aligned around the Vision and Mission and provided important insights to data analysis and community relevance, identifying and refining strategies, and action planning. Stakeholders were identified through a robust process further described in Chapter 3 Stakeholder Engagement.

Data collection and analysis informed the SHSP. The safety improvement strategies and actions identified in the plan are the direct result of data analysis, including observed trends in the crash data, the proven effectiveness of safety countermeasures, and self-reported behaviors gained through annual surveys. Chapter 2 Data Analysis & Findings further details the data collection and analysis.

FHWA requires additional analyses focused on three high-priority contexts: High-Risk Rural Roads (HRRR), Older Drivers and Pedestrians, and Vulnerable Road Users (VRUs)(see callout: FHWA Special Contexts for more details).



Figure 1-2: Colorado SHSP Development Process

Data collection and analysis coupled with stakeholder input supported the identification of Emphasis Areas (Chapter 4) and the selection of strategies (Chapters 5 - 9).

Performance measures were established based on the previous steps. The SHSP establishes goals to reduce fatalities and serious injuries by 5% year-over-year resulting in a 22.6% reduction from 2024 to 2029. These goals align with CDOT's Policy Directive 14 (a 10-year Statewide Plan). Details of these goals are discussed throughout Chapters 5 through 9.

Achieving these goals requires strong implementation and evaluation. The SHSP describes steps for implementation, reporting, and evaluation. The Advancing Transportation Safety (ATS) initiative is responsible for developing annual Action Plans and facilitating implementation by enumerating action steps with timelines, assigning champions, and creating accountability through regular reporting. Access to timely data, such as CDOT's data dashboards allows stakeholders to monitor and evaluate Colorado's progress on meeting the SHSP's five percent year-over-year reduction goal. Stakeholder reporting and annual reports are crucial for assessing progress toward reducing roadway fatalities and serious injuries. Implementation is discussed in Chapter 10 Implementation.

The Advancing Transportation Safety (ATS) initiative, developed under the 2020 Strategic Transportation Safety Plan (STSP), builds on Colorado's 2015 Moving Toward Zero Deaths effort. Recognizing the need for a unified safety coalition, ATS is the result of implementing STSP Strategy B: Build a Safety Coalition- advocating for safety, fostering a strong safety culture, and reducing fatalities and serious injuries across Colorado. The ATS initiative brings together safety partners across the state to implement strategies adopted through the SHSP. These partners are organized into working groups based on Emphasis Areas and develop, champion, and monitor annual Action Plans.

## FHWA Special Contexts (Special Rules)

Per the requirements of the Highway Safety Improvement Program (HSIP), updates to a state's SHSP must address three specific topics (i.e., special rules) aimed at areas of desired safety improvement. The special rules are assigned to states based on observed crash history and are specific to each state. The Infrastructure Investment and Jobs Act (IIJA), signed on November 15, 2021, introduced a new Vulnerable Road User (VRU) Special Rule under the HSIP while maintaining the existing rules for High-Risk Rural Roads (HRRR) and Older Drivers and Pedestrians. The VRU and Older Drivers and Pedestrians HSIP special rules apply to Colorado. As of 2025, the HRRR special rule does not apply to Colorado. The VRU Special Rule strengthens the focus on non-motorist safety and requires states to complete VRU safety assessments as part of the SHSP update process.



**High Risk Rural Roads (HRRR)** High Risk Rural Roads (HRRR) are defined in Title 23 of the United States Code as “any roadway functionally classified as a rural major or minor collector or a rural local road with significant safety risks, as defined by a State in accordance with an updated State Strategic Highway Safety Plan (SHSP).” Each state is required to define significant safety risks.

In Colorado, HRRR are defined as:

Any roadway functionally classified as a rural major or minor collector or a rural local road experiencing severe (serious bodily injury or fatality) crash rates that exceed the average for similar facilities as determined by a Level of Service of Safety (LOSS) (for on-system roadways) or a crash rate analysis (for off-system roadways). On-system roadways are under the jurisdiction of the State of Colorado whereas local agencies (e.g., Cities, Towns, Counties) have jurisdiction over off-system roadways.

Per FHWA requirements, when a state qualifies for the HRRR special rule, the state must obligate in the following fiscal year an amount equal to at least 200% of the amount of funds the State received for fiscal year 2009 for high risk rural roads. For Colorado, that equates to approximately \$2.8M per year. As of 2025, Colorado is not required to set aside these funds; however, whether the special rule applies is reviewed annually to determine if Colorado meets the threshold of the special rule.



**Older Drivers and Pedestrians** The Older Drivers and Pedestrians Special Rule requires Colorado to include strategies in the SHSP to address the rising rate of fatalities and serious injuries among older road users (age 65 and older). The state must analyze whether increases are due to driver or pedestrian incidents—or both—to guide targeted countermeasures. As detailed in Chapter 7 Safe People, fatality and serious injury increases have occurred among both older drivers and pedestrians, necessitating that the SHSP incorporate treatments from the 2014 FHWA Handbook for Designing Roadways for the Aging Population.



**Vulnerable Road Users** Under the VRU Special Rule, Colorado must allocate at least 15% of its HSIP funding to projects improving safety of VRUs. All highway safety improvement projects, including those implemented under the VRU Special Rule, must be on a public road consistent with Colorado’s SHSP and correct or improve a hazardous road location or feature, or address a highway safety problem. Therefore, Colorado’s SHSP addresses fatalities and serious injuries among pedestrians and bicyclists. Furthermore, Colorado uses a data-driven approach to address safety problems and opportunities on all public roads and for all road users as part of the SHSP.

In 2023, Colorado completed a Vulnerable Road Users (VRU) Safety Assessment that outlined strategies and actions aimed at improving safety for those most vulnerable to serious injury or fatality in the event of a crash. The results of the 2023 VRU Safety Assessment informed the VRU Assessment included in this SHSP. Moving forward, the VRU Safety Assessment is now a part of the SHSP process and will be updated every five years. The Safe People Emphasis Area contains the assessment and relevant strategies, described in Chapter 7.



## Emphasis Areas and Focus Areas

Colorado's Emphasis Areas are based on the Safe System Approach and include Safety Culture, Safe Driving, Safe People, Safe Roads, and Post-Crash Care. Within each of these Emphasis Areas, there are Focus Areas that describe particular contexts (e.g., intersections), behaviors (e.g., impaired driving), or populations (e.g., pedestrians) that are associated with fatal and serious injury crashes. For example, in the Safe Roads Emphasis Area there are four Focus Areas: intersections, lane departures, off-system (roads), and speed management (Figure 1-3). This plan identifies specific strategies suitable for each Focus Area including clear performance measures, funding sources, project-level detail, and evaluation criteria. Strategies for each Emphasis Area and Focus Area are included in Chapters 5 through 9.

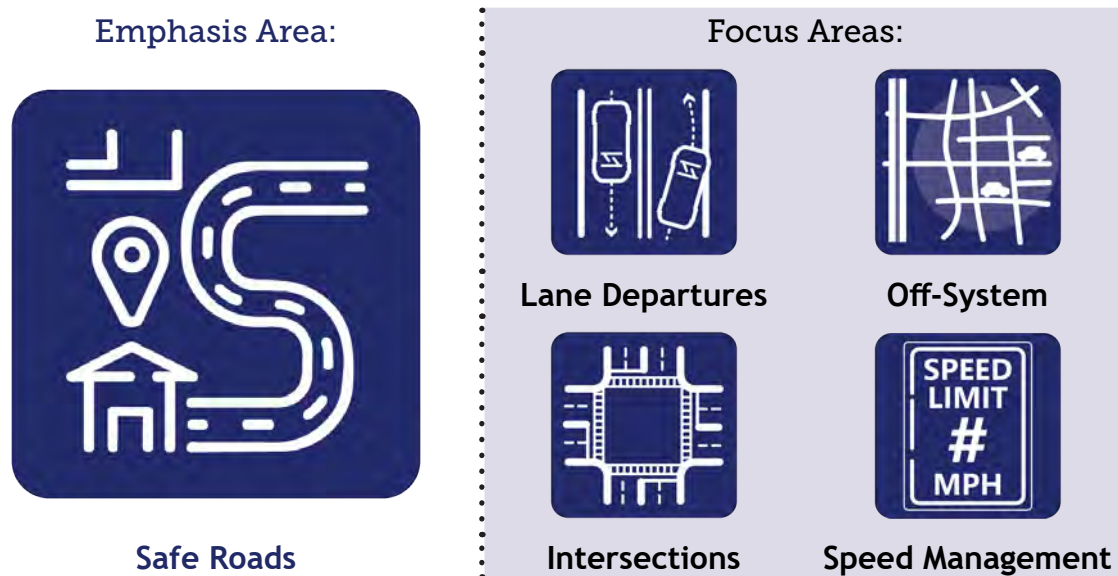


Figure 1-3: Safe Roads Emphasis Area and Focus Areas

## Alignment with Other Plans

The complexity and long-term nature of the transportation system requires multiple short- and long-term plans. Such plans address different geographies (e.g., metropolitan and rural), modes, vehicle classes (e.g., commercial), and safety-related factors (e.g., infrastructure and behavioral).

The SHSP development process involved coordination with various state planning processes, as well as federal, industry-specific, and local road safety plans (Figure 1-4). In total, 44 plans were reviewed to assess alignment with high-level goals, performance measures, strategies, and objectives and identify how these plans could contribute to SHSP implementation. The Appendix includes a full matrix detailing each plan's goals, strategies, objectives, and performance measures and alignment with the SHSP.



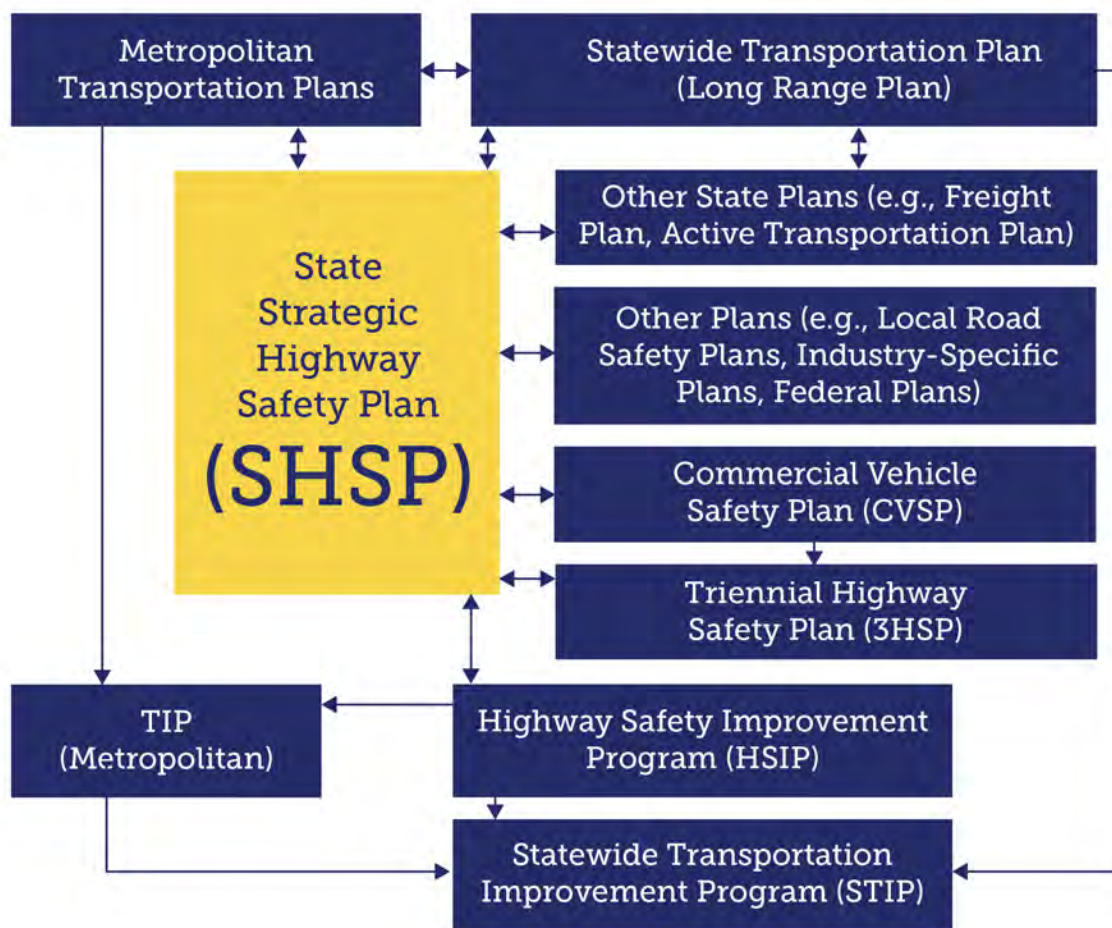


Figure 1-4: Coordinated Transportation Safety Planning, Source reference HSIP.

Opportunities to continue improving alignment with on-going state and local transportation and safety planning efforts include:

- » Developing compatible annual planning timelines.
- » Using consistent data and analysis strategies.
- » Aligning plan and program mission / vision / goals.
- » Identifying consistent strategies and countermeasures.
- » Determine priorities for the correction of hazardous road locations, sections, and elements via identified crash data analysis.
- » Targeting funding to implement strategies associated with SHSP Emphasis Areas.
- » Engaging SHSP stakeholders in planning processes, safety committees, and local and regional safety action planning.
- » Including safety criteria in performance reviews.
- » Providing access to safety data and analysis results.
- » Including SHSP criteria in HSIP and Triennial Highway Safety Plan (3HSP) grant solicitation requirement.

## Summary of Strategies

The following tables summarize the SHSP strategies by Focus Area. More detailed descriptions of the strategies are provided in the SHSP Emphasis Area chapters and the Appendix.

Table 1-1. Safety Culture Strategies

| Focus Area                    | Strategy                                                                                                            |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Organizational Safety Culture | SC1: Conduct organizational safety culture assessments                                                              |
| Organizational Safety Culture | SC 2: Local agency support programs (LTAP and Safety Circuit Rider)                                                 |
| Organizational Safety Culture | SC3: Expand public engagement                                                                                       |
| Organizational Safety Culture | SC4: Consider communities with below average safety outcomes when making transportation safety investment decisions |
| Organizational Safety Culture | SC5: Enhance collaboration and information sharing among traffic safety professionals                               |
| Public Safety Culture         | SC6: Pilot community-level safety culture partnerships                                                              |
| Public Safety Culture         | SC7: Educate through media campaigns                                                                                |
| Public Safety Culture         | SC8: Build capacity among the public                                                                                |

Table 1-2: Safe Driving Strategies

| Focus Area          | Strategy                                               |
|---------------------|--------------------------------------------------------|
| Occupant Protection | SD1: Promote proper use through media campaigns        |
| Occupant Protection | SD2: Educate on primary seat belt law                  |
| Impairment          | SD3: Provide polydrug impairment education             |
| Impairment          | SD4: Prioritize high-risk impaired driving corridors   |
| Impairment          | SD5: Continue high-visibility enforcement              |
| Aggression          | SD6: Deploy anti-aggressive driving campaigns          |
| Aggression          | SD7: Prioritize high-risk aggressive driving corridors |
| Speeding            | SD8: Prioritize high-risk speeding locations           |
| Speeding            | SD9: Deploy speed safety camera systems                |
| Distraction         | SD10: Provide education on hands-free law              |
| Distraction         | SD11: Enhance data collection                          |

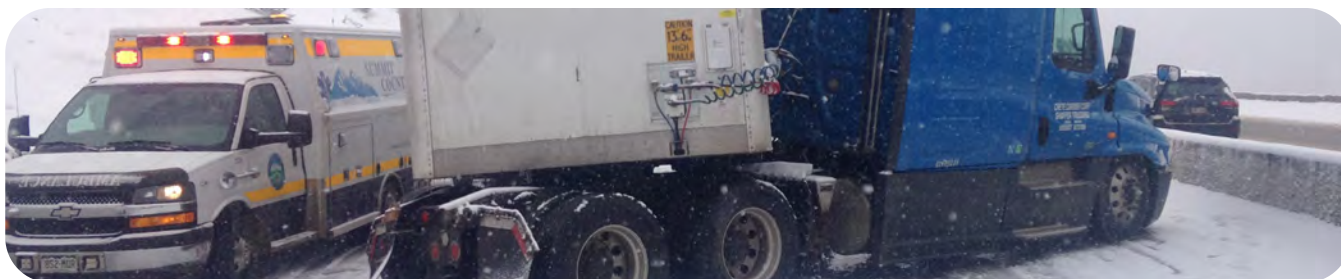


Table 1-3: Safe People Strategies

| Focus Area                    | Strategy                                                               |
|-------------------------------|------------------------------------------------------------------------|
| Motorcyclists                 | SP1: Expand motorcycle operator safety training                        |
| Motorcyclists                 | SP2: Increase public awareness of motorcycle safety                    |
| Motorcyclists                 | SP3: Improve motorcycle licensing and endorsement                      |
| Motorcyclists                 | SP4: Increase helmet and other personal protective equipment (PPE) use |
| Aging Drivers                 | SP5: Improve visibility of traffic control devices                     |
| Aging Drivers and Pedestrians | SP6: Improve sight distances                                           |
| Aging Drivers and Pedestrians | SP7: Expand community-based mobility options                           |
| Aging Drivers                 | SP8: Enhance and expand resources for aging drivers                    |
| Young Drivers                 | SP9: Expand access to driver's education                               |
| Young Drivers                 | SP10: Improve quality of driver's education                            |
| Pedestrians and Bicyclists    | SP11: Prioritize pedestrian and bicycle crash types                    |
| Pedestrians and Bicyclists    | SP12: Improve VRU exposure data                                        |
| Pedestrians and Bicyclists    | SP13: Conduct Road Safety Audits (RSAs)                                |
| Pedestrians and Bicyclists    | SP14: Perform regional pedestrian/bicyclist studies                    |
| Pedestrians and Bicyclists    | SP15: Analyze VRU crash demographic data                               |
| Pedestrians and Bicyclists    | SP16: Conduct VRU before-and-after studies                             |
| Pedestrians and Bicyclists    | SP17: Educate traffic safety professionals on VRU best practices       |
| Pedestrians and Bicyclists    | SP18: Inventory VRU infrastructure                                     |
| Pedestrians and Bicyclists    | SP19: Expand VRU data sources                                          |
| Pedestrians and Bicyclists    | SP20: Evaluate VRU priority locations                                  |
| Work Zones                    | SP21: Create work zone safety committee                                |
| First Responders              | SP22: Provide resources and support for first responders               |



Table 1-4: Safe Roads Strategies

| Focus Area       | Strategy                                            |
|------------------|-----------------------------------------------------|
| Lane Departures  | SR1: Install traffic controls and safety barriers   |
| Lane Departures  | SR2: Improve roadway geometry                       |
| Off-System       | SR3: Provide local agency assistance                |
| Off-System       | SR4: Encourage community-specific plans             |
| Intersections    | SR5: Reduce intersection conflicts                  |
| Intersections    | SR6: Perform Intersection Control Evaluations (ICE) |
| Intersections    | SR7: Incorporate VRU designs                        |
| Intersections    | SR8: Prioritize high-risk intersection locations    |
| Intersections    | SR9: Implement improved traffic controls            |
| Speed Management | SR10: Promote appropriate speeds                    |
| Speed Management | SR11: Set safe and realistic speed limits           |





Table 1-5: Post-Crash Care Strategies

| Focus Area | Strategy                                                                  |
|------------|---------------------------------------------------------------------------|
| TIM/EMS    | PC1: Improve collection of post-crash care data                           |
| TIM/EMS    | PC2: Improve quality of care                                              |
| TIM/EMS    | PC3: Provide education on post-crash care best-practices                  |
| TIM/EMS    | PC4: Enhance programs in light of differences in post-crash care outcomes |
| TIM/EMS    | PC5: Support statewide traffic incident management (TIM) activities       |



## Chapter 2: Data Analysis & Findings

The Strategic Highway Safety Plan (SHSP) utilizes a data-driven process, using safety data to identify trends, pinpoint problems, and develop targeted strategies with actionable implementation measures. This section provides an overview of key safety trends in Colorado. Each Emphasis Area and relevant Focus Areas have a distinct data profile and set of characteristics that expand upon this data. For more details on data trends for specific Emphasis Areas and Focus Areas, see Chapters 5 through 9.

## Background

There are numerous ways to measure “safety,” so it is important to understand what safety means in the context of this plan. Historically, a roadway was said to be “safe” if it complied with accepted standards and guidelines. Later, safety was measured by the total number of crashes or a simple crash rate. This plan utilizes current best practices by measuring fatalities and serious injuries, following the SSA principle “death and serious injuries are unacceptable.” This method entails measuring safety in terms of crash severity or the highest level of injury resulting from a crash.

The following are common terms utilized in describing transportation safety (AASHTO, 2010):

- » Crash frequency: the number of crashes in a given study area and study period. Crash frequency can relate to all crashes or a subset of crash severities, crash types, or a combination of the two.
- » Crash rate: the number of crashes normalized by some level of exposure, such as vehicle miles traveled (VMT).
- » Crash severity: the level of injury resulting from a crash. Crash severity can be defined at either the person level or at the crash level. At the person level, this represents the severity reported for each person involved in a crash. At the crash level, this represents the most severe injury resulting from the crash. Crash severity is commonly categorized on crash reports using the KABCO scale, where:
  - » K is a fatality.
  - » A is a suspected serious injury.
  - » B is a suspected minor injury.
  - » C is a possible injury.
  - » O is no apparent injury, also known as property damage only (PDO).



# Methodology

Data analyses were performed to identify key factors contributing to traffic related fatalities and serious injuries. The data analysis focuses on fatal (K) and serious injury (A) crashes, also referred to as severe crashes. Stakeholder input, including feedback from the Steering Committee and Subject Matter Experts (SMEs), aided in the development and interpretation of the analysis.

The analysis provided context for each of the five Emphasis Areas and helped identify factors contributing to observed crash data trends:



Safety  
Culture



Safe  
Driving



Safe  
People



Safe  
Roads



Post-Crash  
Care

- » **Safety Culture:** Community engagement, law enforcement collaboration, data access, and public outreach.
- » **Safe Driving:** Behavioral risk factors, high-risk corridors, high-risk counties, and legislation.
- » **Safe People:** High-risk populations, overrepresented travel modes, roadway workers and first responders.
- » **Safe Roads:** Common crash types, roadway-related risk factors, high-crash locations, and high-risk counties, municipalities, and tribal territories.
- » **Post-Crash Care:** EMS response and transport times, hospital admissions, access to trauma centers, secondary crash rates, and post-crash care analysis.

The SHSP is a statewide plan, making a “hot spot” approach to identifying and treating specific locations based on crash history inappropriate. In contrast, a “systemic approach” to safety acknowledges that crash frequency or rates at specific locations are not always sufficient to determine which safety improvement actions to implement and where to implement them. Systemic implementation of safety actions helps address the most serious crash types on the entire road system, not just at specific high-crash spot locations. The systemic safety approach offers a means to identify crash types (e.g., intersection, roadway departure, pedestrians) and the location-related factors that contribute to the highest number of fatal and serious injury crashes of each type, and widely implement low-cost countermeasures over several locations with similar crash characteristics and/or similar roadway features.

In addition to the factors that contribute to observed crash trends, cost-effectiveness of strategies and the benefit-cost of subsequent strategy-based actions are important considerations. The SMEs, FHWA’s Proven Safety Countermeasures, National Highway Traffic Safety Administration’s (NHTSA) Countermeasures that Work, and FHWA’s Crash Modification Factors Clearinghouse all influenced strategy identification and definition. See Chapter 10 Implementation for more details related to the effectiveness of strategies.



## Data Sources

Colorado agencies collect, maintain, and analyze transportation, socioeconomic, EMS, community engagement and other data. This collective data, in addition to the national sources such as the Fatality Analysis Reporting System (FARS), the Fatality and Injury Reporting System Tool (FIRST), U.S. Census Data, and Emergency Responder Safety Institute (ERSI) data, provides a comprehensive understanding of Colorado's transportation safety landscape.

The SHSP is built upon a comprehensive understanding of historical crash data. In Colorado, crash data originates with law enforcement officers who prepare crash reports and submit the information to the Department of Revenue (DOR). The DOR is the custodian of record for crash reports and disseminates the data to other systems, including those associated with the driver and the vehicle. CDOT receives, processes, and analyzes crash data and provides summary reports to FHWA and NHTSA.

Crash data originates from police crash reports. Different reporting practices among law enforcement officers or agencies can result in inconsistencies in the crash data. Furthermore, the reporting officer may not have complete information when filling out the report, which results in some subjectivity in the data. For instance, it can be difficult for an officer to determine if distraction or speeding were factors in a crash unless there is evidence such as testimonial evidence (e.g., admission of high-risk driving behavior). It is also noteworthy that Colorado's crash report form changed in 2020, resulting in different data being available before and after this date. Because of these changes, some analyses are only performed using data after 2020, including speed-involved crashes.

Historical crash data is also used to identify expected safety performance of roadways and intersections. Level of Service of Safety (LOSS) reflects the safety performance of a particular location through a comparison with other similar locations. Locations with a higher-than-expected crash severity or frequency are typically considered good candidates for safety improvement.

Population trends and public health data also play a role in safety analysis. The Colorado State Demographer and the Department of Local Affairs track current and projected population data. CDPHE collects and maintains data pertaining to EMS. Data relating to EMS dispatch and response, medical treatment, and hospital-related data are important to understanding the factors that contribute to the survivability of the crash.

Road Safety Audits (RSAs) continue to be an emerging practice in Colorado. As they become more commonplace, RSA findings and recommendations can be used to inform subsequent strategies and actions, including identification of systemic safety countermeasures. Chapter 7: Safe People and Chapter 8: Safe Roads include strategies intended to strengthen RSA practices.

The Appendix provides a full list of data sources.

## Safety Trends

This section provides an overview of statewide safety trends. More detailed analysis of crash trends and contributing factors for each Emphasis Area are presented in their respective chapters (Chapters 5 through 9).

Traffic-related fatalities have increased steadily since 2013 and more sharply within the last few years. Based on 5-year rolling averages, fatalities increased by 11% from 2019 to 2023. Over this same period, the 5-year rolling average for serious injuries rose by 28%. This reflects a sharp increase since 2020 when stay-at-home conditions were widespread due to the COVID-19 pandemic. Considering the amount of motor vehicle travel in Colorado, measured in VMT, fatality rates have also increased steadily since 2013, and more sharply since 2019.

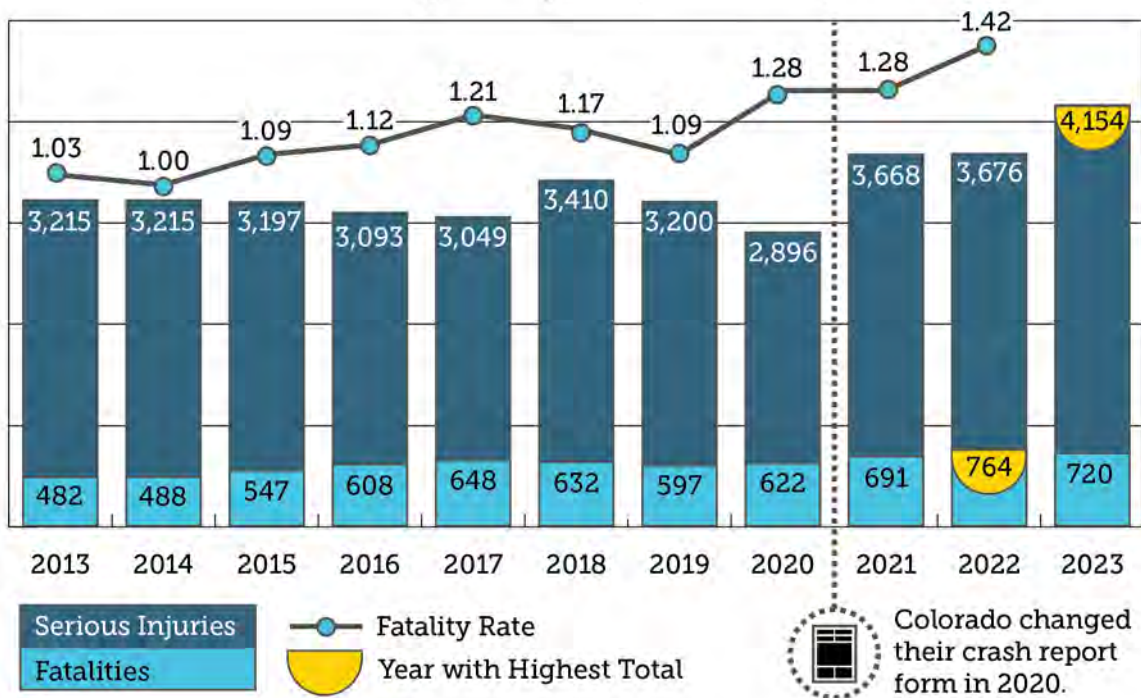


Figure 2-1: Fatalities and Serious Injuries by Year\*\*

\*VMT data not available for 2023

\*\*Sources: FHWA Highway Statistics Tables VM-2. (2017 to 2022); CO Crash Database as of January 2024 (2017 to 2023); HSIP 2022 Report (2013 to 2016)

## Emphasis Areas and Key Crash Factors in Colorado

One of the central roles of Colorado's SHSP is to identify and categorize Focus Areas—safety categories that offer the greatest potential to reduce fatalities and serious injuries. The 20 Focus Areas, which are grouped by Emphasis Areas, were selected through crash data analysis and stakeholder input, including Subject Matter Experts (SMEs). Fourteen (14) of these identified Focus Areas have substantial data to accompany them. Figures 2-2 through 2-4 omit the following six focus areas: Public Safety Culture, Organizational Safety Culture, First Responders, Speed Management, Traffic Incident Management, and EMS, as the related data do not fit these analyses.

While each Emphasis Area and Focus Area is addressed in its own chapter, the plan recognizes that multiple contributing factors often intersect in a single crash. For example, addressing speeding may also help reduce lane departure and impaired driving crashes. The SHSP identifies strategies that proactively target overlapping risks, as well as individual contributing factors.

Intersections, lane departures, and improper use of occupant protection remain some of the leading contributors to fatal and serious injury crashes in Colorado.

Although crashes involving pedestrians, bicyclists, and motorcyclists make up a lesser share of total crashes, they result in disproportionately severe outcomes. For example, since 2021, pedestrians and bicyclists accounted for approximately 17% of all traffic fatalities, despite being involved in far fewer crashes overall.

The figures on the following page illustrate the relative severity of different Focus Area crashes. While some crash types have lower total numbers, such as those involving pedestrians or bicycles, they more frequently result in fatal or serious injury outcomes on a per-crash basis.

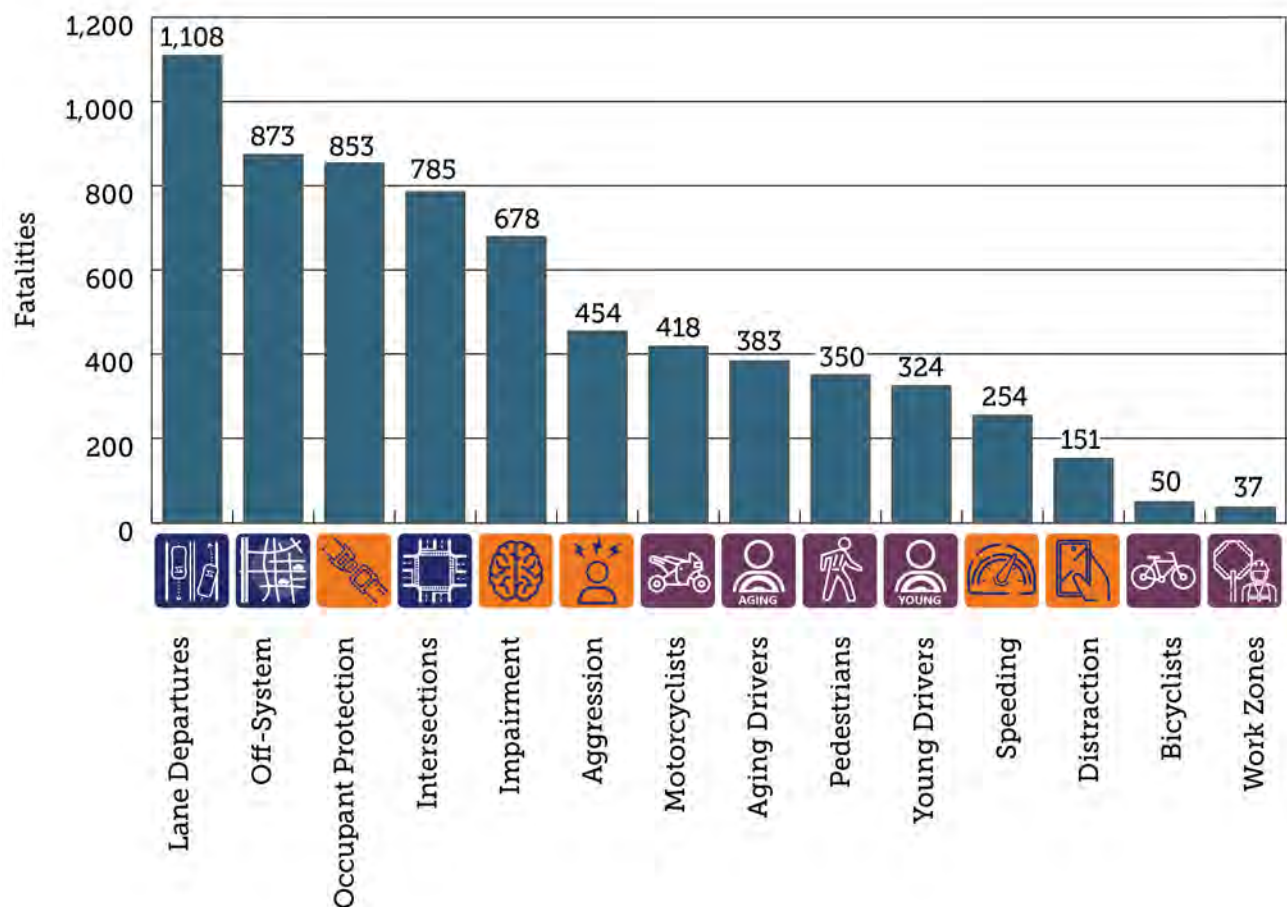


Figure 2-2: Total Fatalities by Focus Area (2021 to 2023)

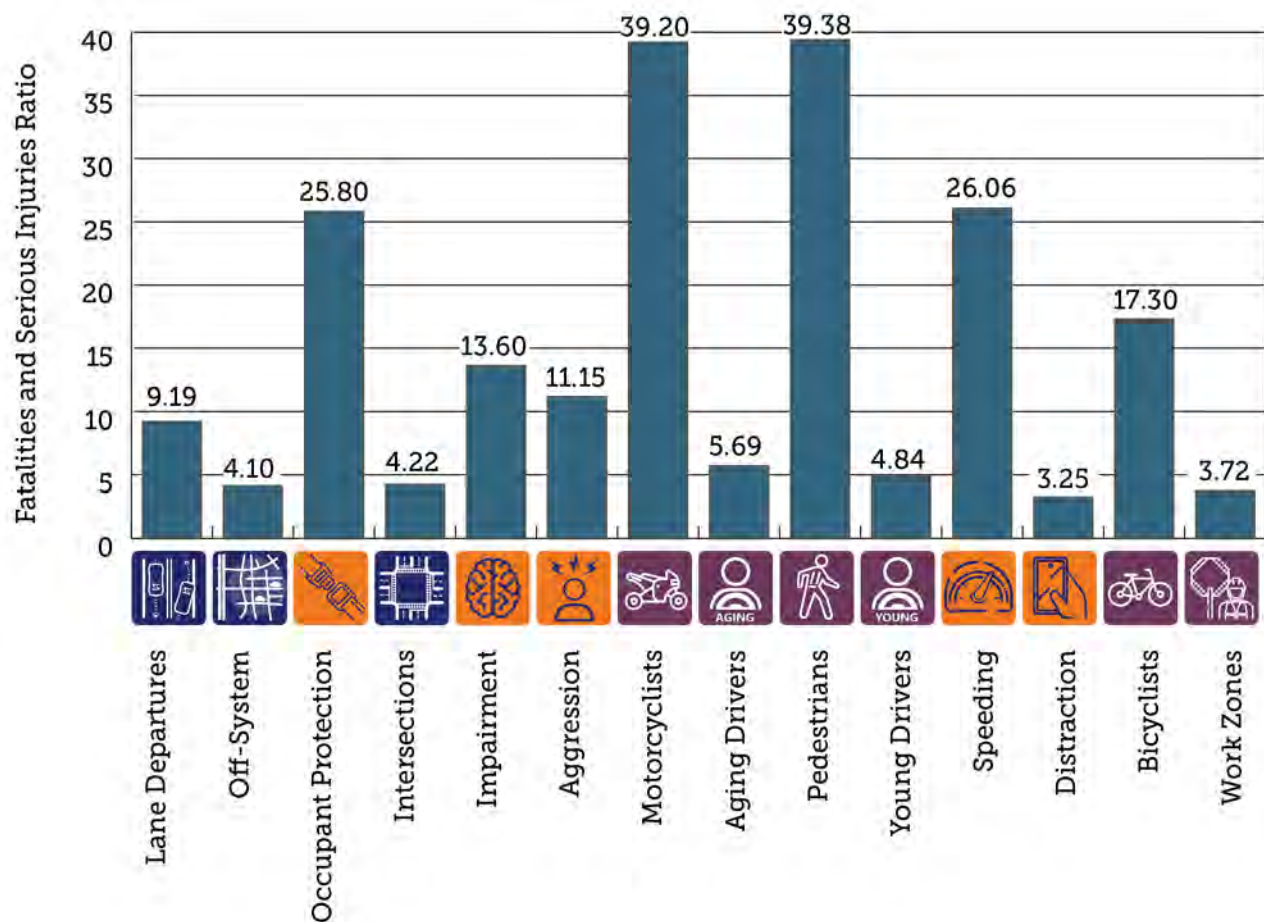


Figure 2-3: Ratio of Fatalities and Serious Injuries to Total Crashes by Focus Area (2021 to 2023)

Figure 2-3 highlights how crashes within certain Focus Areas have a much higher likelihood of resulting in deaths or serious injuries. For example, 39.2% of motorcycle crashes result in a serious injury or fatality. In contrast, 9.2% of lane departure crashes result in serious injury or fatality. It is important to note that although each lane departure crash is less likely to result in a serious injury or fatality, they nevertheless make up a large proportion of the total number of crashes resulting in fatalities and serious injuries and therefore are an important Focus Area of the SHSP.



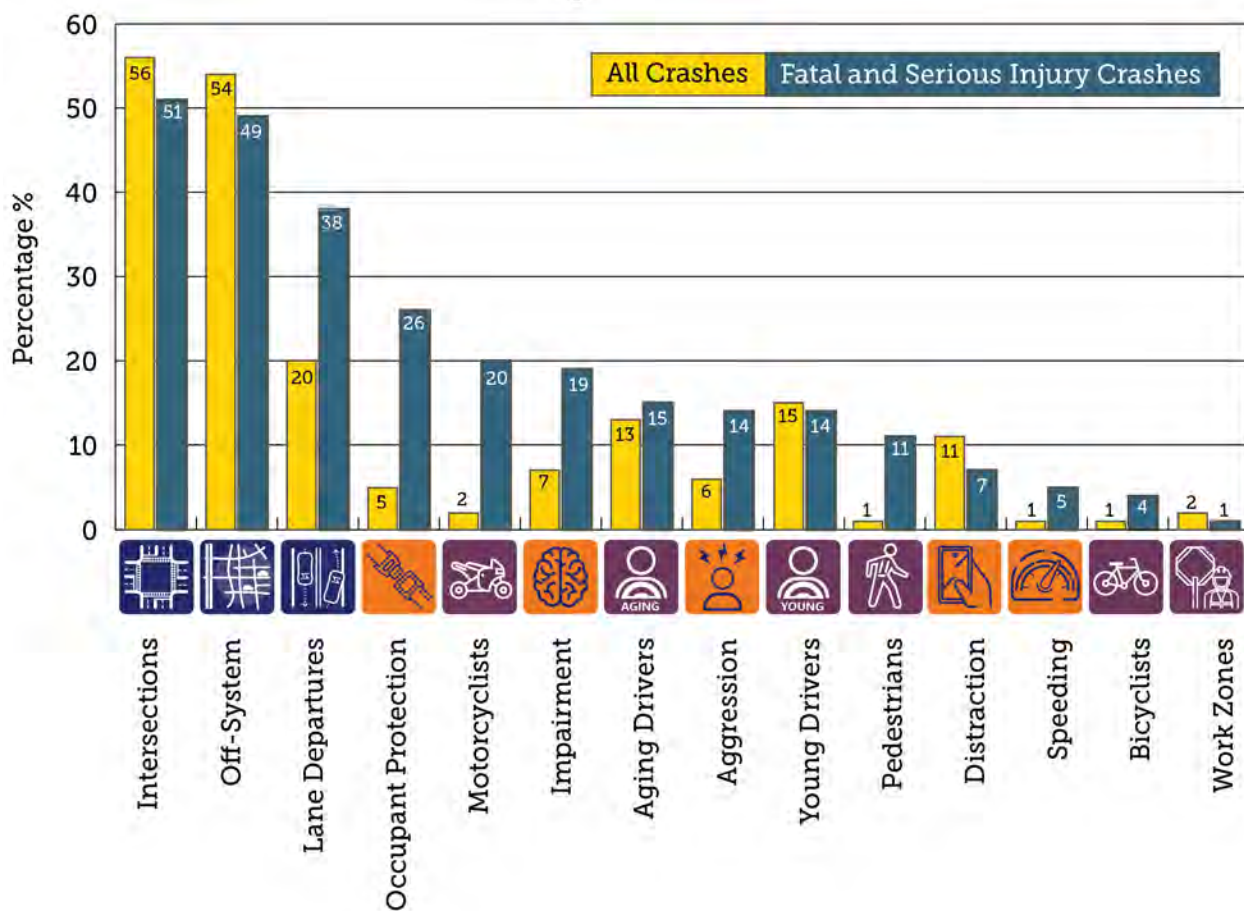


Figure 2-4: Proportion of Fatal and Serious Injury Crashes vs. All Crashes by Focus Area (2021 to 2023)

The number of fatal and serious injury crashes by Focus Area is important, as is the proportion of fatal and serious injury crashes to all crashes, as these illustrate areas where disproportionality creates opportunity for the application of safety improvement strategies. Trends within each Focus Area are also informative as they reveal whether existing strategies are yielding improvement (fewer crashes year-over-year) or if the opposite is true. As shown in Table 2-1, these trends indicate whether a Focus Area is grouped into Safety Culture, High-Impact, Emerging and Monitoring, and Doubling Down on Success categories. As described more thoroughly in Chapter 10 Implementation, the Focus Area category provides a glimpse into the effectiveness of current safety improvement efforts, and aids in the identification of new strategies.

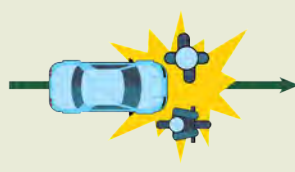
Table 2-1: Focus Area Trends and Resulting Category

| Focus Area                                                                                                              | 2021 Fatal & Serious Injuries | 2022 Fatal & Serious Injuries | 2023 Fatal & Serious Injuries | Total (2021-2023) | % Change (2021-2023) | Focus Area Category   |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------|----------------------|-----------------------|
|  Intersections                          | 2,062                         | 2,183                         | 2,529                         | 6,774             | 23%                  | High-Impact           |
|  Off-System                             | 1,993                         | 2,092                         | 2,315                         | 6,400             | 16%                  | High-Impact           |
|  Lane Departure                         | 1,805                         | 1,827                         | 1,775                         | 5,407             | -2%                  | High-Impact           |
|  Occupant Protection                    | 1,263                         | 1,271                         | 1,246                         | 3,780             | -1%                  | High-Impact           |
|  Impairment                             | 913                           | 986                           | 992                           | 2,891             | 9%                   | High-Impact           |
|  Motorcycles                            | 800                           | 800                           | 842                           | 2,442             | 5%                   | High-Impact           |
|  Young Drivers                          | 606                           | 735                           | 794                           | 2,135             | 31%                  | Emerging & Monitoring |
|  Aging Drivers                          | 673                           | 679                           | 771                           | 2,123             | 15%                  | Emerging & Monitoring |
|  Pedestrians                            | 446                           | 484                           | 625                           | 1,555             | 40%                  | Emerging & Monitoring |
|  Speeding                               | 178                           | 236                           | 292                           | 706               | 64%                  | Emerging & Monitoring |
|  Bicyclists                             | 164                           | 149                           | 210                           | 523               | 28%                  | Emerging & Monitoring |
|  Work Zones                           | 43                            | 52                            | 65                            | 160               | 51%                  | Emerging & Monitoring |
|  Aggression                           | 608                           | 731                           | 690                           | 2,029             | 13%                  | Emerging & Monitoring |
|  First Responders*                    | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Emerging & Monitoring |
|  Emergency Medical Services*          | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Emerging & Monitoring |
|  Distraction                          | 353                           | 339                           | 348                           | 1,040             | -1%                  | Doubling Down         |
|  Speed Management*                    | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Traffic Incident Management*         | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Wildlife-Vehicle Collisions          | 25                            | 36                            | 31                            | 92                | 24%                  | Doubling Down         |
|  Commercial Vehicles*                 | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Children Passenger Safety (Under 15) | 173                           | 147                           | 176                           | 496               | 2%                   | Doubling Down         |
|  Winter Weather Related*              | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Highway-Rail Grade Crossings         | 13                            | 9                             | 20                            | 42                | 54%                  | Doubling Down         |

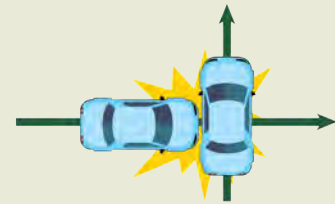
\*Note: Data for these Focus Areas either do not apply in this way, or are not available.



Collision with  
Fixed Object  
**20%**



Pedestrian and  
Bicyclists Crashes  
**17%**



Broadside  
Collision  
**15%**

While the Focus Areas help guide strategic priorities and actions, it is equally important to understand the specific types of crashes contributing to fatalities and serious injuries on Colorado's roadways. From 2019 to 2023, the most common fatal and serious injury crash types statewide were collision with a fixed object (20%), pedestrian and bicyclist crashes (17%), and broadside collisions (15%). These crashes frequently occur at intersections and in areas with high conflict points between road users. Reducing these crash types is essential to improving roadway safety across Colorado.

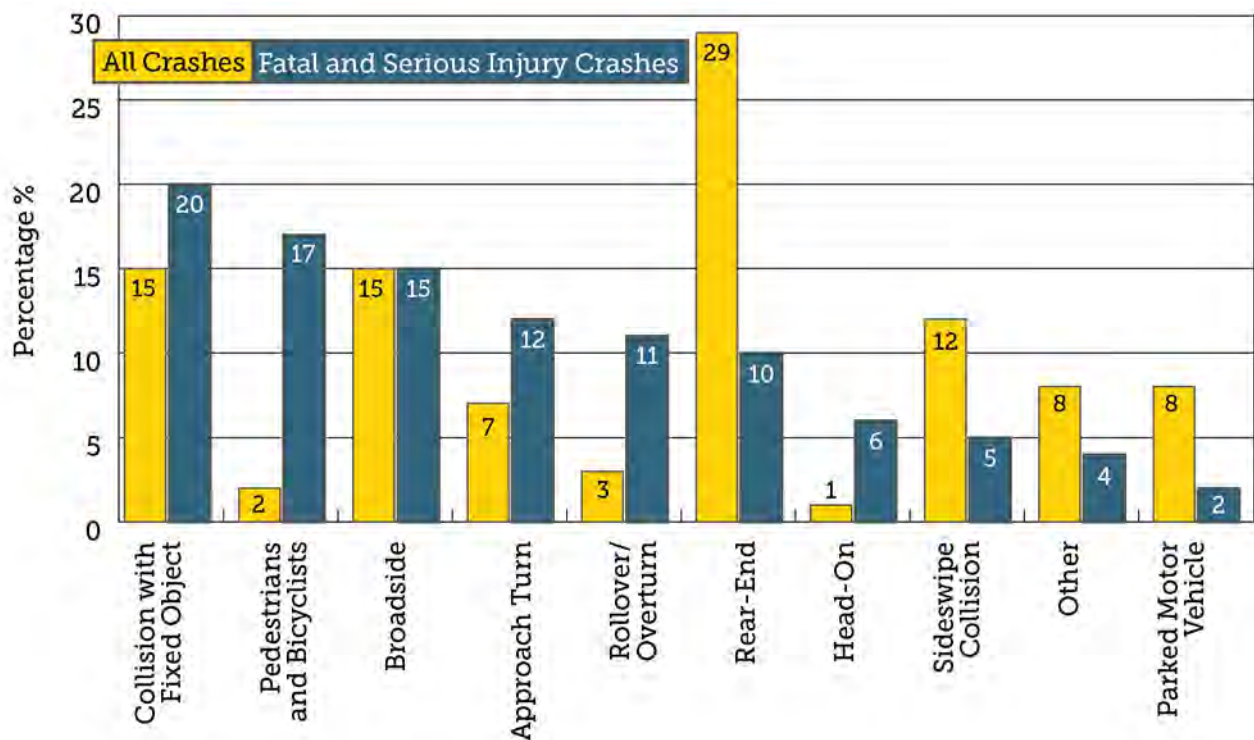


Figure 2-5: Fatalities and Serious Injuries by Crash Type (2021-2023)

## Evolving Travel Trends

The societal shifts from the COVID-19 pandemic had significant impacts on travel patterns and safety across Colorado. VMT declined sharply due to stay-at-home conditions, yet fatal crashes increased, leading to a spike in the fatality rate. This trend highlights how external factors, such as cultural and economic shifts, may compound safety risks.

In Colorado, urban areas account for over double the VMT of rural areas in a typical year. Urban VMT saw the steepest decline in 2020, but since then, travel has largely rebounded to pre-pandemic levels, with continued growth expected. While urban areas have higher traffic volumes and more crashes overall, rural areas experience disproportionately severe crashes on a per-crash basis. Understanding these geographic differences is crucial for improving safety statewide.

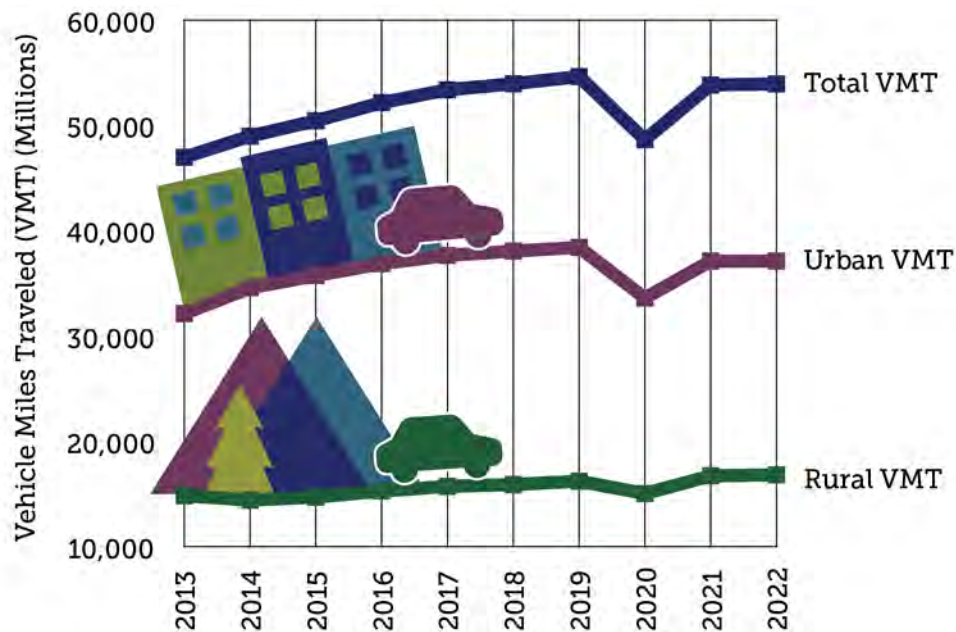


Figure 2-6: Urban vs. Rural VMT Trend (2013-2022)

Source: FHWA Highway Statistics Tables VM-2. (2013 to 2022)



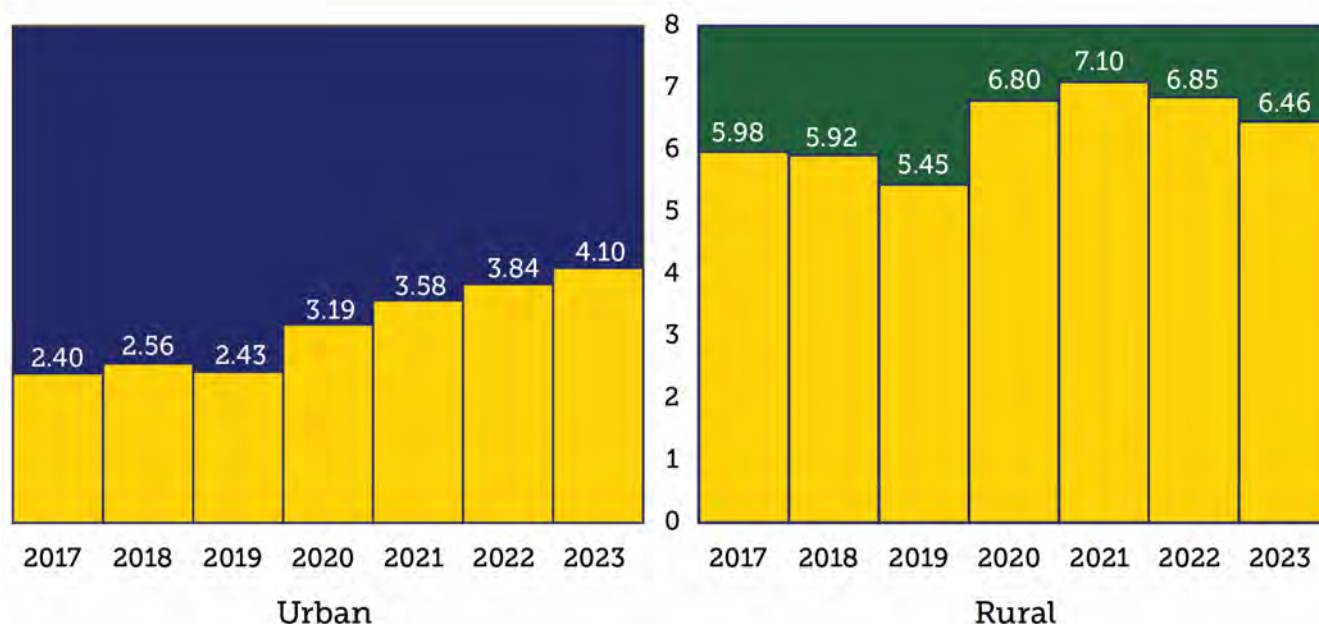


Figure 2-7: Urban vs. Rural Fatal Crash Rate per 100 Crashes (2017-2023)

Source: CO Crash Database as of January 2025 (2017 to 2023)

## Urban and Rural Contexts

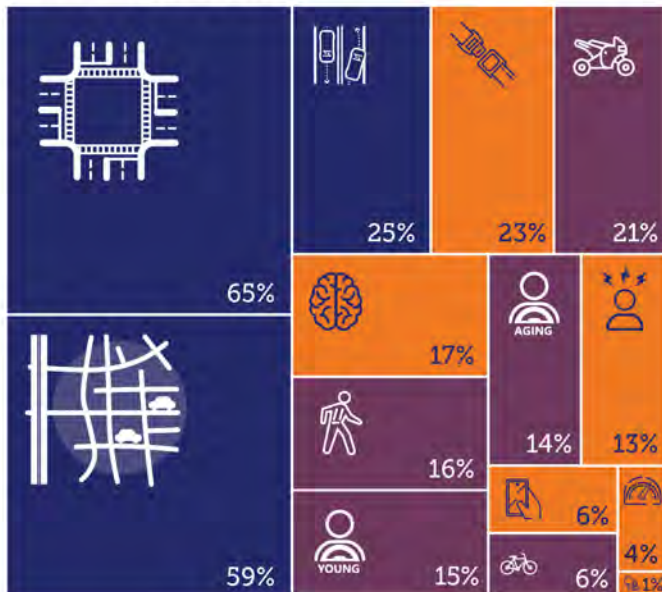
Urban and growing communities face safety challenges shaped by their environment. With more pedestrians, bicyclists, and other VRUs, urban areas see a higher proportion of severe crashes involving these road users. This is primarily due to more frequent daily interactions between vehicles and other road users on city streets.

While Colorado continues to urbanize, rural communities experience distinct safety risks that require attention. Although urban areas have three times as many crashes as rural areas, rural crashes more frequently result in fatalities and serious injuries. Factors such as higher speed, lower seat belt use, and lower access to post-crash care contribute to the severity of rural crashes. Addressing these differences is critical for improving safety statewide.

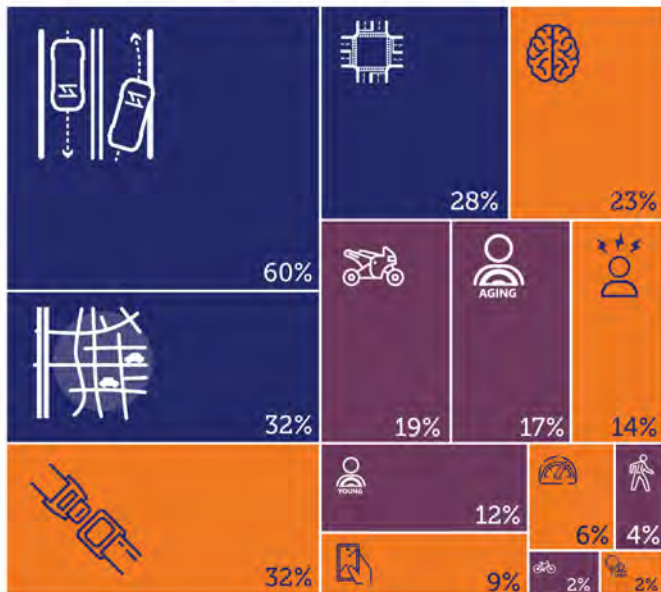
Figure 2-8 illustrates the percentage of fatal and serious injury crashes in urban and rural areas across key Focus Areas. Note that crashes often include multiple contributing factors and represent multiple Focus Areas. For example, a single crash may involve speeding, impairment, and lane departure. As such, the percentages in the figure total more than 100 percent.



## Urban



## Rural



| Urban                   |                  |
|-------------------------|------------------|
| Intersection 65%        | Young Driver 15% |
| Off-System 59%          | Aging Driver 14% |
| Lane Departure 25%      | Aggression 13%   |
| Occupant Protection 23% | Distraction 6%   |
| Motorcyclists 21%       | Speeding 4%      |
| Impairment 17%          | Bicyclists 6%    |
| Pedestrians 16%         | Work Zone 1%     |

| Rural                   |                  |
|-------------------------|------------------|
| Lane Departure 60%      | Aggression 14%   |
| Off-System 32%          | Young Driver 12% |
| Occupant Protection 32% | Distraction 9%   |
| Intersection 28%        | Speeding 6%      |
| Impairment 23%          | Pedestrians 4%   |
| Motorcyclists 19%       | Bicyclists 2%    |
| Aging Driver 17%        | Work Zone 2%     |

Figure 2-8: Urban and Rural Fatal and Serious Injuries by Focus Area

Source: CO Crash Database as of January 2025 (2021 to 2023)

# State and Local Road Contexts

The state’s roadway system also plays a critical role in crash trends. Though the state highway system accounts for only 10% of Colorado’s total roadway miles, it carries 49% of the total VMT. Reflecting this pattern, 52% of fatal and serious injury crashes occur on state highways, while 48% happen on off-system roadways. This means that strategic safety improvements on a smaller subset of high-risk state highways could address a significant portion of severe crashes.

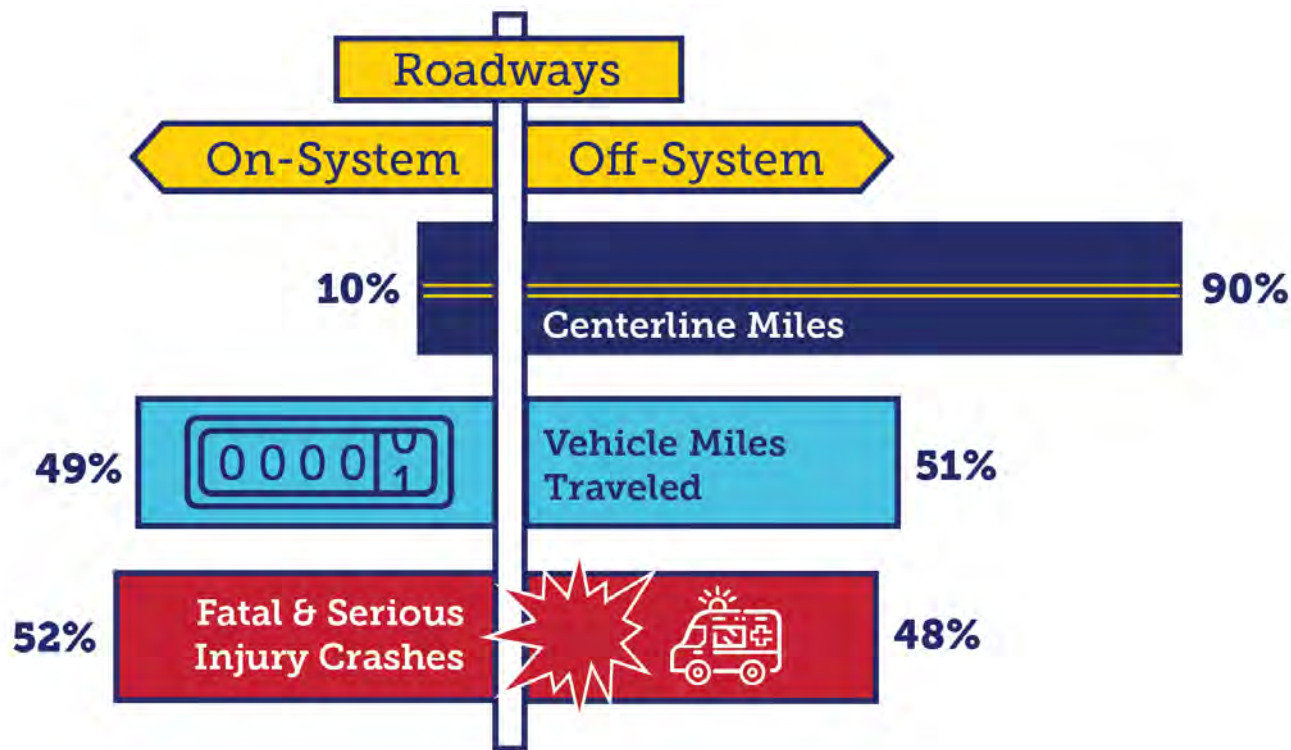


Figure 2-9: Centerline Miles, Annual Vehicle Miles Traveled, and Fatal and Serious Injury Crashes by On vs. Off-System Roadways

# Demographic Shifts

As Colorado’s population grows and shifts, the state faces new challenges in ensuring roadway safety. Over the past decade, Colorado’s population grew by 10%, adding approximately 52,000 new residents in 2023 alone. However, traffic-related fatalities and serious injuries increased by 24% during the same period—growing more than twice as fast as the population. With forecasts projecting another 26% increase in residents by 2050, addressing this widening gap between growth and roadway safety is critical.

Demographic changes are also reshaping travel patterns and crash risk. Older adults are becoming a larger share of Colorado’s drivers, pedestrians, and bicyclists, which has direct safety implications (Figure 2-10). Older adults, especially pedestrians, are more likely to sustain severe injuries or fatalities in crashes. Older adults are less likely to survive a crash due to factors such as increased vulnerability, comorbidities (e.g., heart disease), medications that impair blood clotting, and delayed recovery. As the state plans for the future, it must accommodate aging populations and their mobility needs.

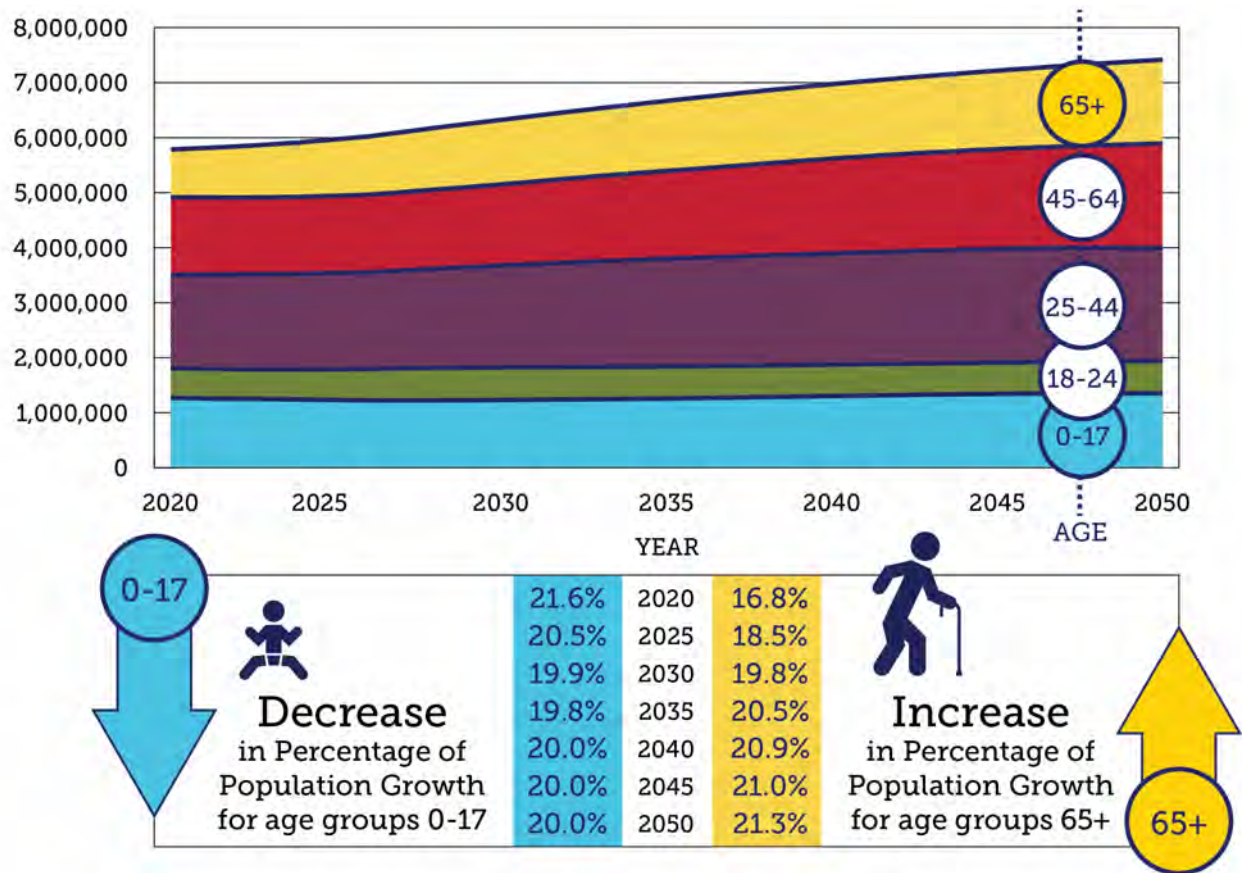


Figure 2-10: Population Growth in Colorado by Age Group (2020-2050)

Source: CO State Demography Office ([https://demography.dola.colorado.gov/assets/lookups/county\\_sya\\_lookup.html](https://demography.dola.colorado.gov/assets/lookups/county_sya_lookup.html))

Disparities in crash risk extend beyond age. National data shows that racial minorities are overrepresented in fatal crashes. Research also suggests that the location and quality of transportation infrastructure in communities play a significant role in crash risk. The next section overlays Colorado's crash data with more extensive details on the socioeconomic and demographic characteristics of those involved in crashes to analyze disparities.



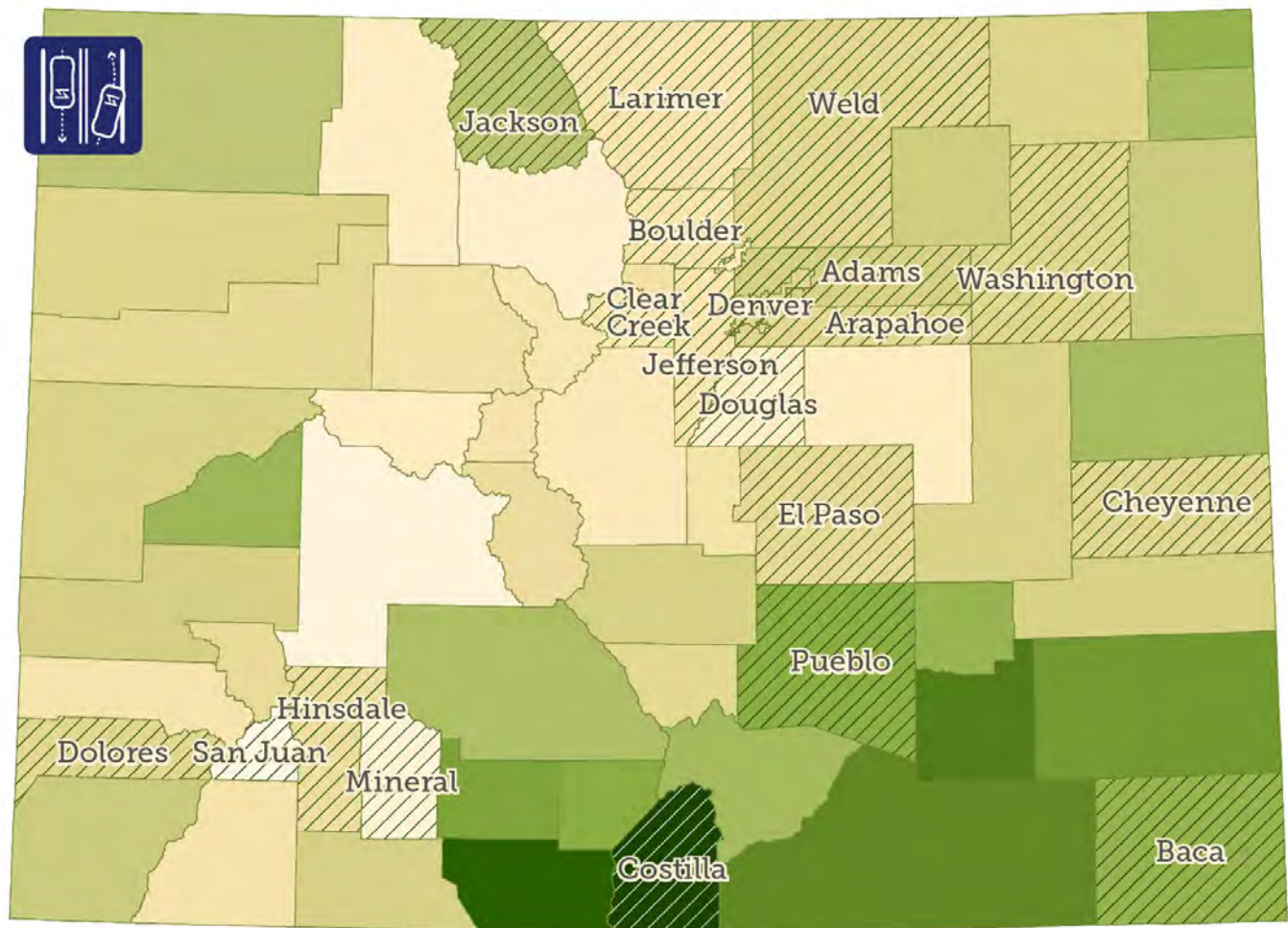
## County Transportation Data

This plan utilizes Transportation Disadvantaged Index (TDI) data developed specifically for Colorado. Adapted from a framework originally created by the North Carolina Department of Transportation (NCDOT), the TDI identifies areas with higher transportation needs by comparing local communities to county, regional, and statewide averages.

The TDI is calculated at the U.S. Census Block Group level. These calculations produce a cumulative TDI score, with higher scores indicating greater transportation need. For this plan, TDI scores are aggregated to the county level to provide a broader, policy-oriented view. The index considers factors such as population, age, income and other factors.

Each safety Focus Area (except those in the Safety Culture Emphasis Area) includes a Weighted TDI Map, displaying county-level TDI scores. Darker shades represent higher TDI values, indicating greater levels of transportation need. To further contextualize transportation need, the maps also identify the counties with the highest total fatalities and serious injuries and/or the highest fatality and serious injury rates per resident for the respective Focus Area.

Figure 2-11: TDI Map Example: Total Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | El Paso              | Mineral                 |
| 2    | Denver               | San Juan                |
| 3    | Adams                | Jackson                 |
| 4    | Jefferson            | Cheyenne                |
| 5    | Weld                 | Baca                    |
| 6    | Larimer              | Hinsdale                |
| 7    | Arapahoe             | Costilla                |
| 8    | Douglas              | Washington              |
| 9    | Boulder              | Clear Creek             |
| 10   | Pueblo               | Dolores                 |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

## 2020 STSP Evaluation

The 2020 STSP identified 15 Tier I (High-Priority) Strategies for implementation. Collectively, the state accomplished most of the Tier I strategies identified in the plan. A few successes included:

- » Naming a safety champion to lead a proactive safety program.
- » Building a safety advocacy coalition (ATS).
- » Institutionalizing safety roles/responsibilities.
- » Coordinating with existing safety programs.
- » Launching the Traffic Safety Summit initiative.
- » Promoting consistent safety messages and campaigns.

These strategies and a number of the actions listed in the STSP continue to progress and have been incorporated into the SHSP strategies. The STSP created the ATS as a safety advocacy coalition, which has crafted a path for the future of transportation safety in Colorado. ATS has led the adoption of Colorado's Safe System Approach which changes the alignment of the focus areas identified in the previous STSP. These focus areas have been redeveloped under the emphasis areas of the SSA (Safety Culture, Safe Driving, Safe People, Safe Roads and Post-Crash Care). These emphasis areas have existing SME teams responsible for development, implementation and monitoring of strategies.

Moving forward with this SHSP, most of the focus areas identified in the STSP have been realigned to fit with the existing emphasis area working groups in the SSA. For example Aggressive Driving has been moved from the High-Risk Behavior emphasis area in the STSP to Safe Driving in the SHSP. The Programmatic focus area in the STSP has been moved to fit under each of the emphasis areas of the SSA in a more focused way. Stakeholders identified and data confirmed that most of the focus areas from the STSP should be continued into this plan, with the addition of several new focus areas, under the existing infrastructure of the SSA.

The 2020 STSP also aimed to reduce the number of traffic-related fatalities and serious injuries per 100 million VMT by 15%. While data reveals fatalities and are starting to trend downwards over the last few years, the goals of the STSP were not met as there was still an overall increase since the adoption of the STSP.

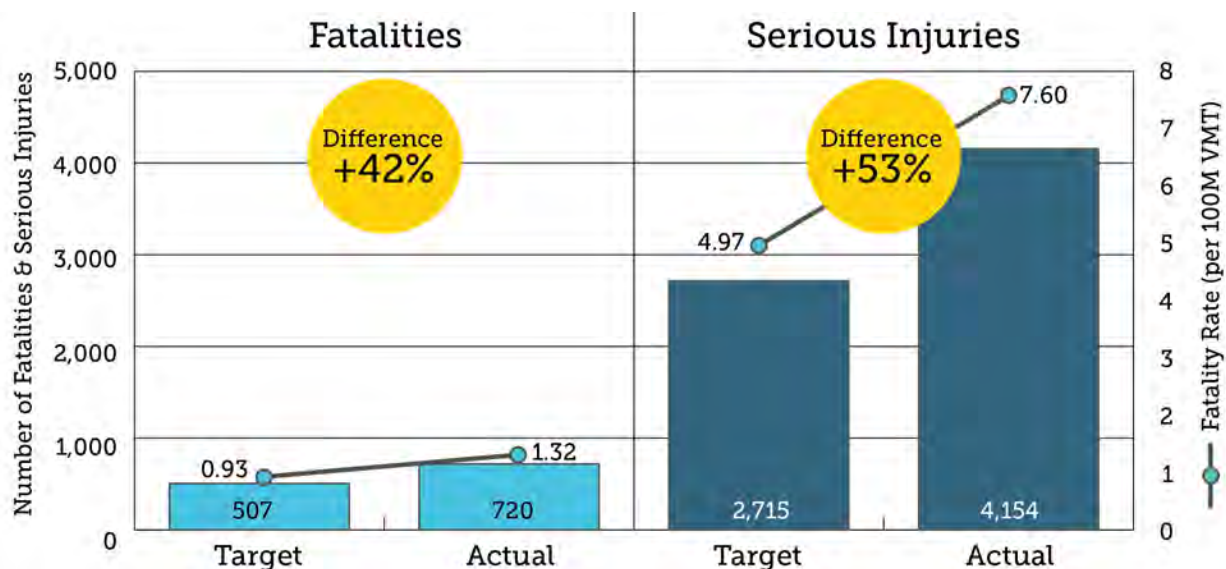


Figure 2-12: 2020 STSP Fatalities and Serious Injuries per 100 Million VMT Goals Versus Actual

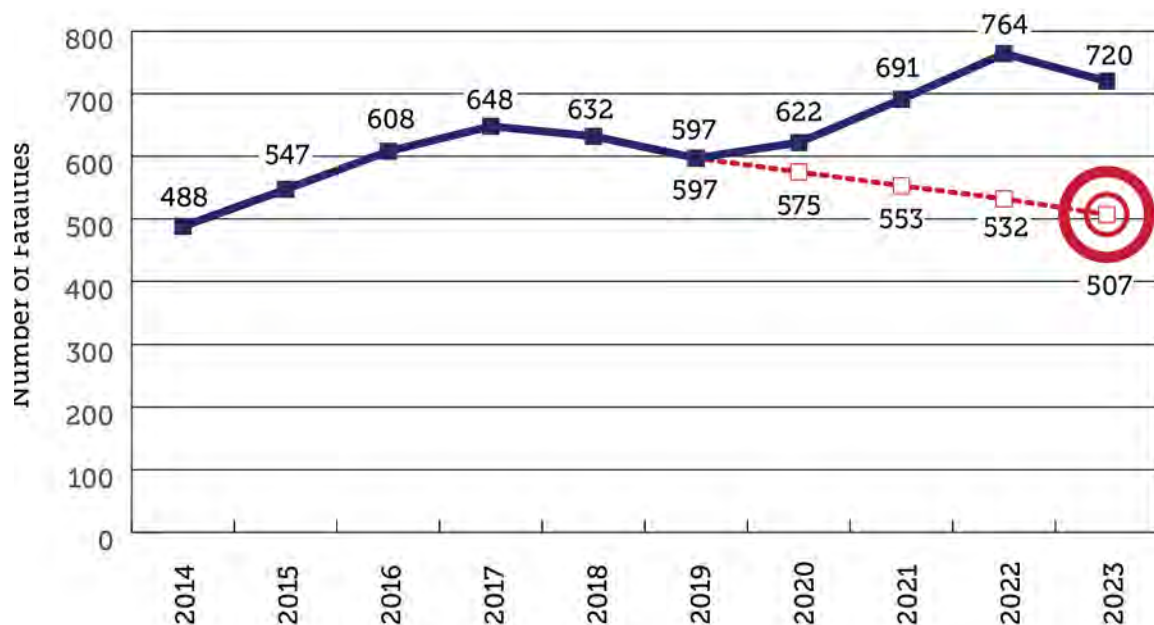


Figure 2-13: 2020 STSP Fatality Goals vs. Actual

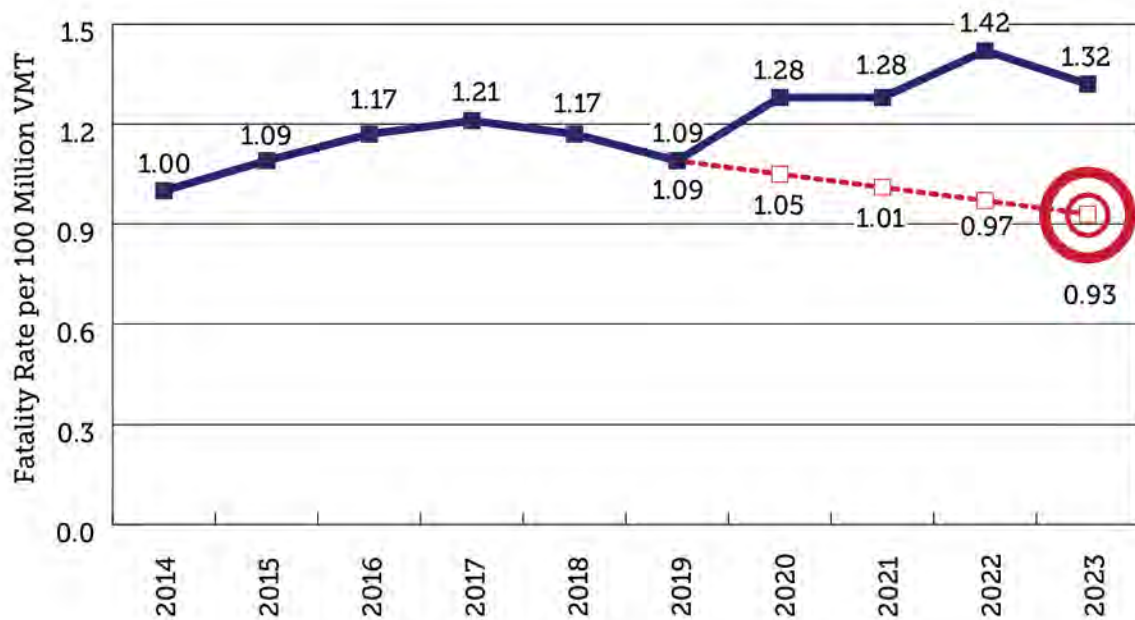


Figure 2-14: 2020 STSP Fatality Rate Goals vs. Actual

Note: 2023 VMT not finalized, projected .06% growth rate used



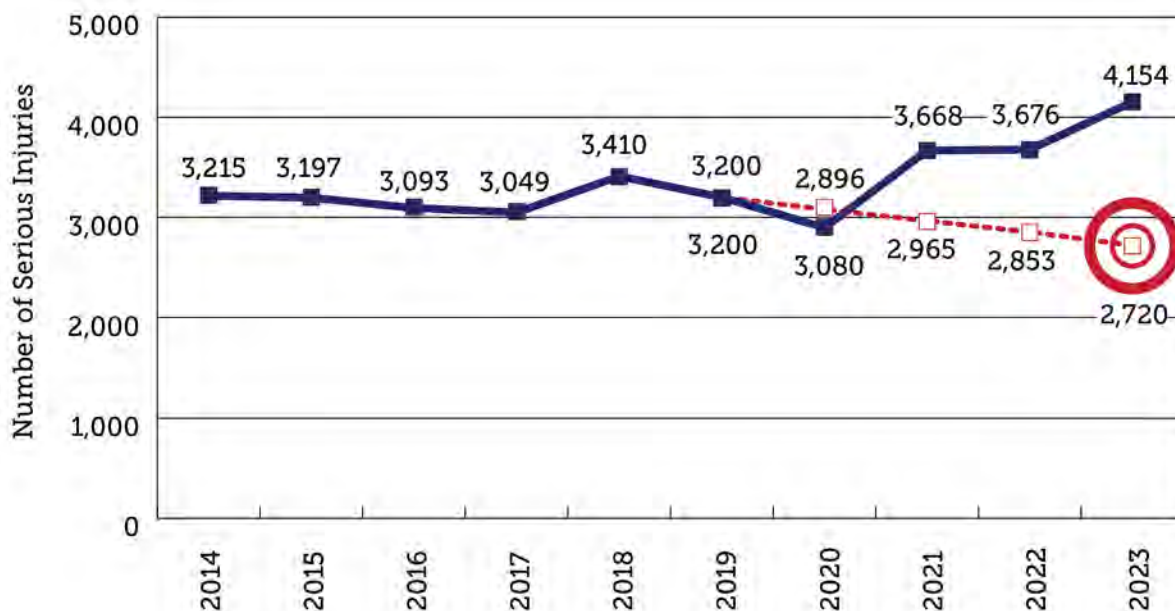


Figure 2-15: 2020 STSP Serious Injury Goals vs. Actual

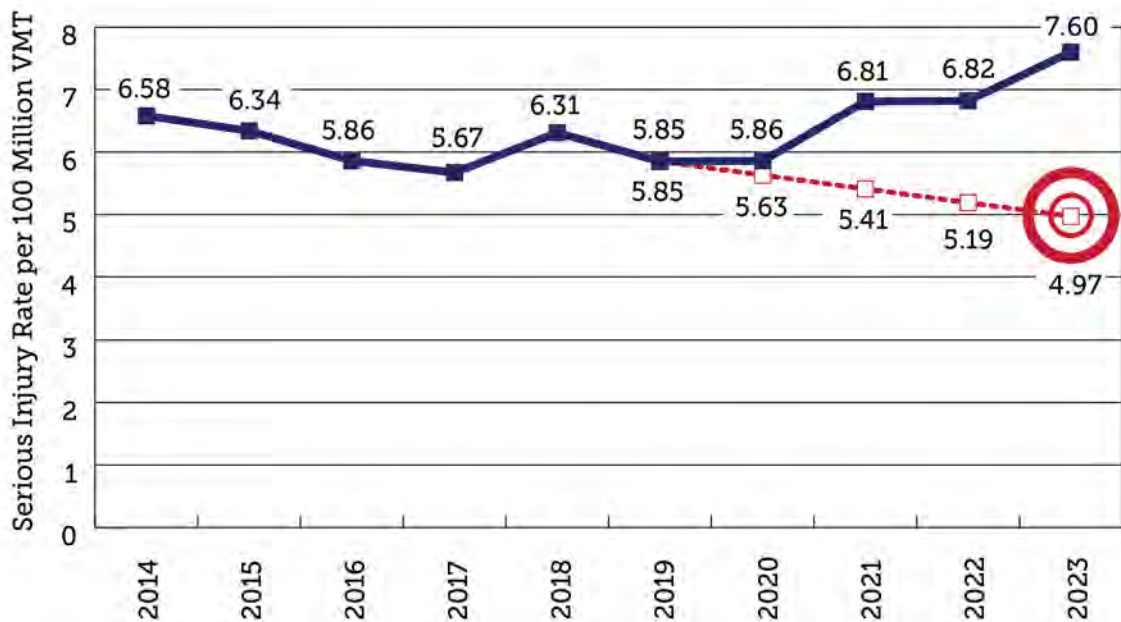


Figure 2-16: 2020 STSP Serious Injury Rate Goals vs. Actual

Note: 2023 VMT not finalized, projected .06% growth rate used





## Chapter 3: SHSP Stakeholder Engagement

Stakeholder engagement played a crucial role in shaping the Strategic Highway Safety Plan (SHSP). External and internal stakeholders alike came together to proclaim a shared vision for increasing transportation safety and shared commitment to realizing that vision. Their insights and expertise played a critical role in shaping the plan and addressing the safety needs of communities statewide. Every piece of feedback—whether gathered through meetings, workshops, emails, or online tools—helped refine strategies, enhance data analysis, and identify additional stakeholders to engage.

## Stakeholders Defined

- » **Colorado Department of Transportation (CDOT) Internal Team:** Serving as a sounding board for the plan’s development, this team provided input and guidance to align the plan with organizational objectives. Team members included the Highway Safety Office, Communications, Environmental Justice and Equity, Traffic Safety & Engineering, Division of Transportation Development, and Regional Traffic Engineers.
- » **Steering Committee:** This group included representatives from Plan Signatories CDOT, Colorado State Patrol (CSP), the Department of Revenue (DOR), the Colorado Department of Public Health and Environment (CDPHE), the National Highway Traffic Safety Administration (NHTSA), and the Federal Highway Administration (FHWA) along with additional state agencies, advocacy groups and special interest organizations. The Steering Committee provided a statewide perspective and strategic direction throughout the planning process to guide Focus Area identification, strategy selection, and plan content.
- » **Advancing Transportation Safety (ATS)/Subject Matter Experts (SMEs):** Leveraging the existing ATS framework from the 2020 SHSP, this group served as the SMEs for each of the Emphasis Areas (Safety Culture, Safe Driving, Safe People, Safe Roads, and Post-Crash Care). The members of the ATS Emphasis Area working groups and additional SMEs met monthly during the plan’s development to review the work and recommendations of the Project Team related to topics such as data analysis, strategies, and priorities.

In addition to the partners above, stakeholder engagement spanned across the state gathering feedback from elected officials, non-profit special interest groups, bicycle and motor carrier organizations, transportation planners, tribal partners, and state and local law enforcement safety professionals. Local agency representatives and county transportation officials also demonstrated their commitment to safety, participating in large numbers both in-person and online. For the complete list of stakeholders see the Plan Acknowledgment.

## Engagement Opportunities

To support plan development and learn more about regional safety concerns, various engagement methods collected a diverse range of feedback and insight across the state. Primary engagement methods included a statewide kickoff meeting, regional in-person and virtual workshops, an online engagement platform, presentations to interested agencies and organizations, and one-on-one meetings. Additional engagement included regular meetings with the SHSP Steering Committee and ATS/SME Emphasis Area groups.



## Regional Workshops

After a statewide virtual kickoff meeting, a series of regional workshops were hosted across Colorado, with hybrid workshops held in Denver, Pueblo, Glenwood Springs, Greeley, and Durango, along with five subsequent virtual workshops. These five hybrid (in-person and virtual) and five virtual workshops attracted over 250 attendees. Stakeholders were invited through direct mail postcards, virtual flyers, and over 1,800 electronic invitations.

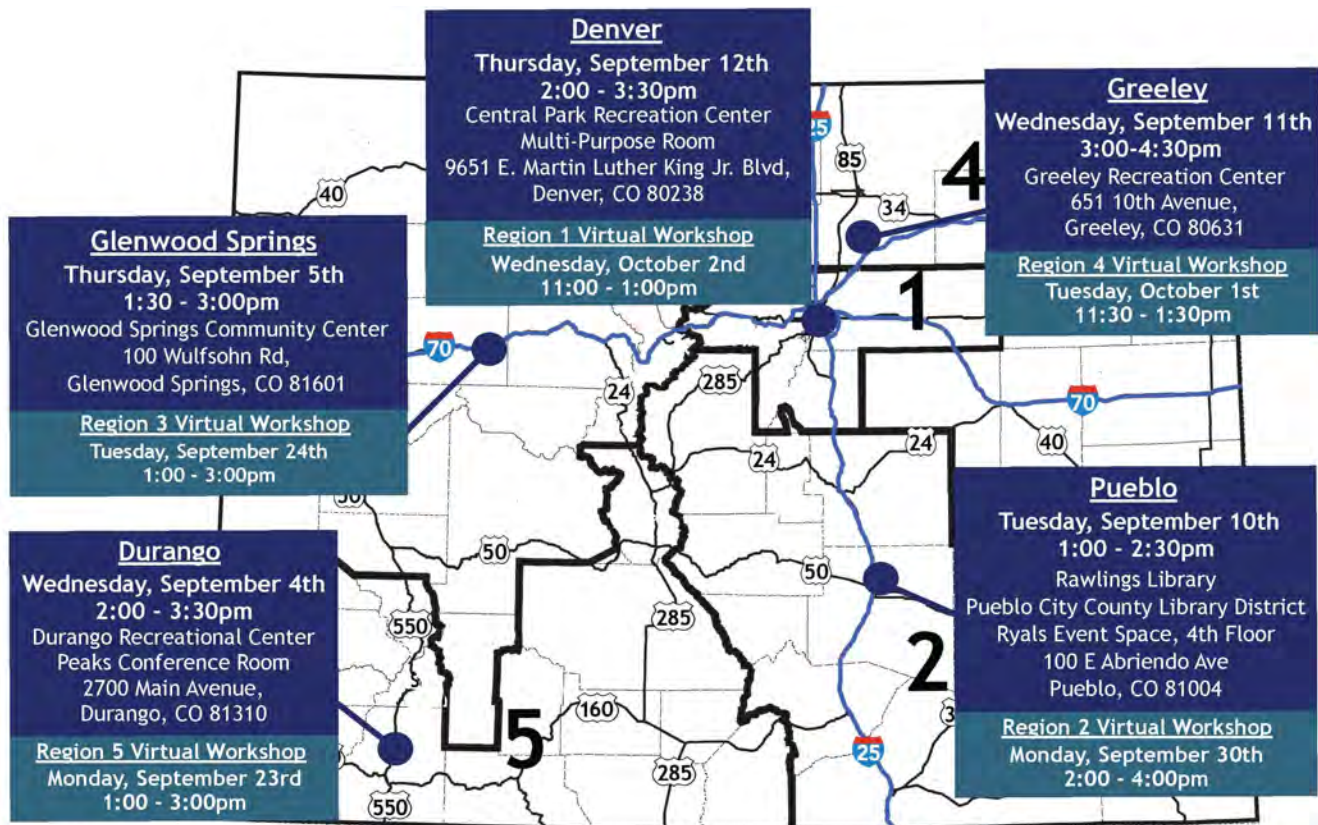


Figure 3-1: Colorado Department of Transportation Regions showing both in-person and virtual workshop meeting dates and times

## Workshop Goals

- » Shaping transportation safety strategies.
- » Assessing current conditions and gaps.
- » Facilitating collaboration among agencies, communities, and stakeholders.
- » Exploring funding opportunities.
- » Collecting insights on local safety needs and challenges.





Figure 3-2: Collage of various workshops in Denver (Region 1), Pueblo (Region 2), Glenwood Springs (Region 3), Greeley (Region 4), and Durango (Region 5)

## Polling

To encourage discussions, meeting facilitators used live polling to capture participants' top transportation safety concerns. Stakeholders provided feedback specific to their regions; however, participants noted consistent concerns related to speeding, impairment, aggressive driving, Vulnerable Road Users (VRUs), and roadway design.



Figure 3-3: Word Cloud responses to “Using one word, what is your most significant transportation safety concern?” from Region 5 Durango Hybrid Workshop - most popular answers populated as largest on the screen

## Breakout Groups

Participants were divided into small groups to discuss key safety issues, resource gaps, and potential community-driven solutions. In-person attendees documented their ideas on large sheets of paper (Figure 3-4) while virtual participants provided input through online comment boards (Figure 3-5).

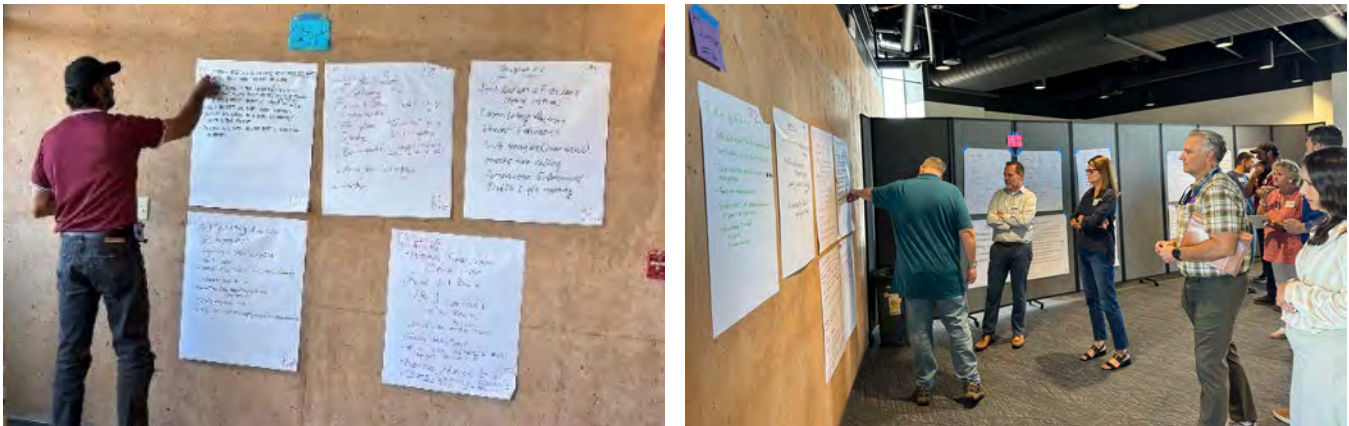


Figure 3-4: Stakeholders at Region 2 workshop in Pueblo sharing their response

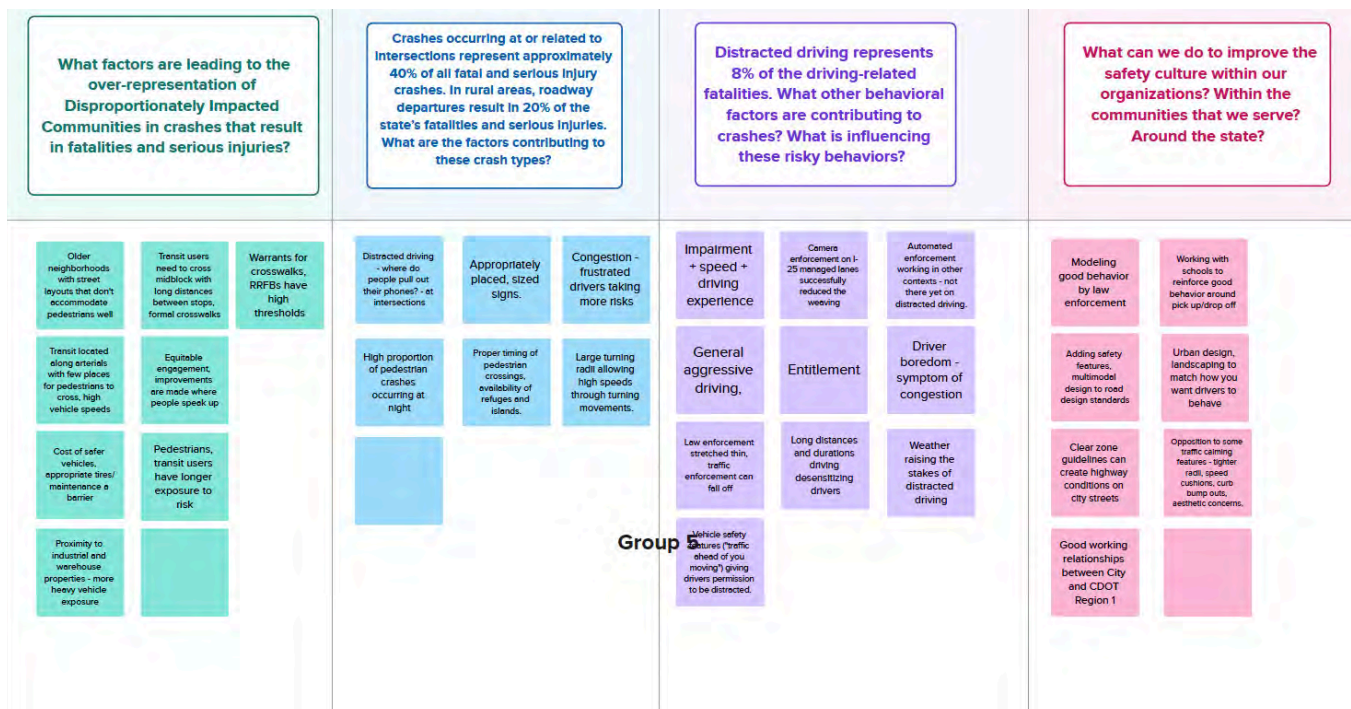


Figure 3-5: Region 1's online comment board

After group discussions, attendees reviewed responses from other groups and identified ideas they supported. Speakers then summarized key insights, concerns, and recommendations for the larger audience.



## Online Engagement

To expand outreach beyond in person events, a dedicated project email and an online engagement platform served as a mechanism for collecting additional stakeholder insight and feedback. Launched on June 25, 2024, the online engagement platform allowed stakeholders to engage in the SHSP process through an interactive comment map. Users could mark locations of concern and provide safety-related feedback.

The online engagement tool received hundreds of messages from stakeholders, which were tracked in a communications log, and included in the Appendix.

**313 comments** were submitted through December 31, 2024.  
**17 counties** and **35 municipalities** represented in the feedback.  
Comments were **categorized by Emphasis Area**: Safety Culture, Safe Roads, Safe People, Safe Driving, and Post-Crash Care.

While most of the comments were site-specific safety concerns (Figure 3-6), key themes included concerns about speeding and speed limits, truck traffic, lack of shoulders, intersection improvements, and pedestrian safety. This feedback guided plan development with insight into the safety priorities of stakeholders. The online comments were also shared with CDOT Regional Traffic Engineers for further action as appropriate.

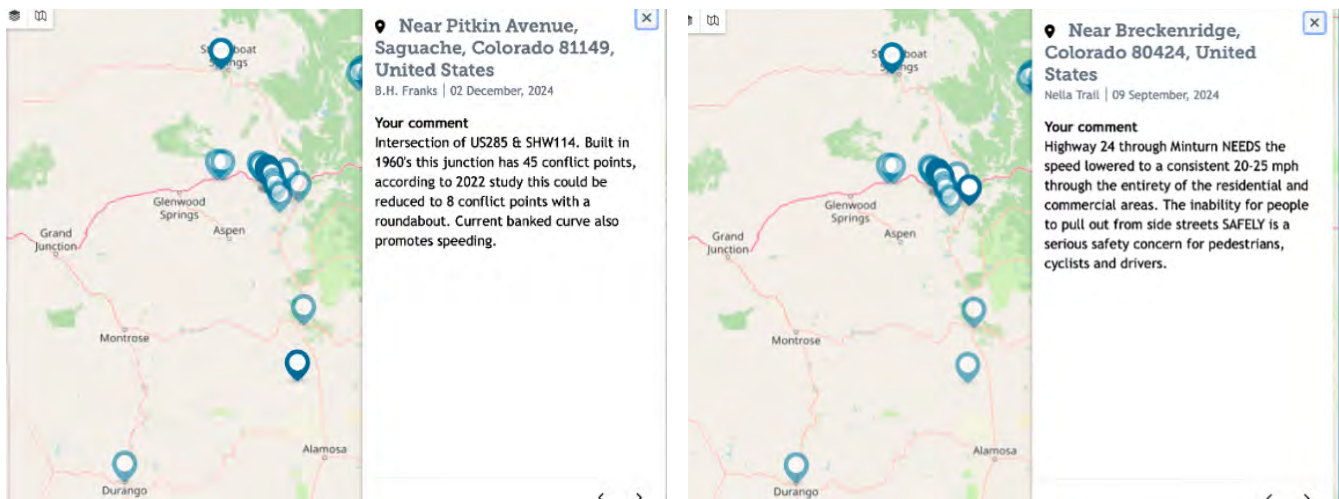


Figure 3-6: Map of Colorado with comment markers

The online comments were categorized by Emphasis Areas (Figure 3-7). Over 50% of the comments related to Safe Roads while 21% concerned Safe People and Safe Driving. Figure 3-8 shows a sample of specific comments related to Safe Roads and Safe Driving.

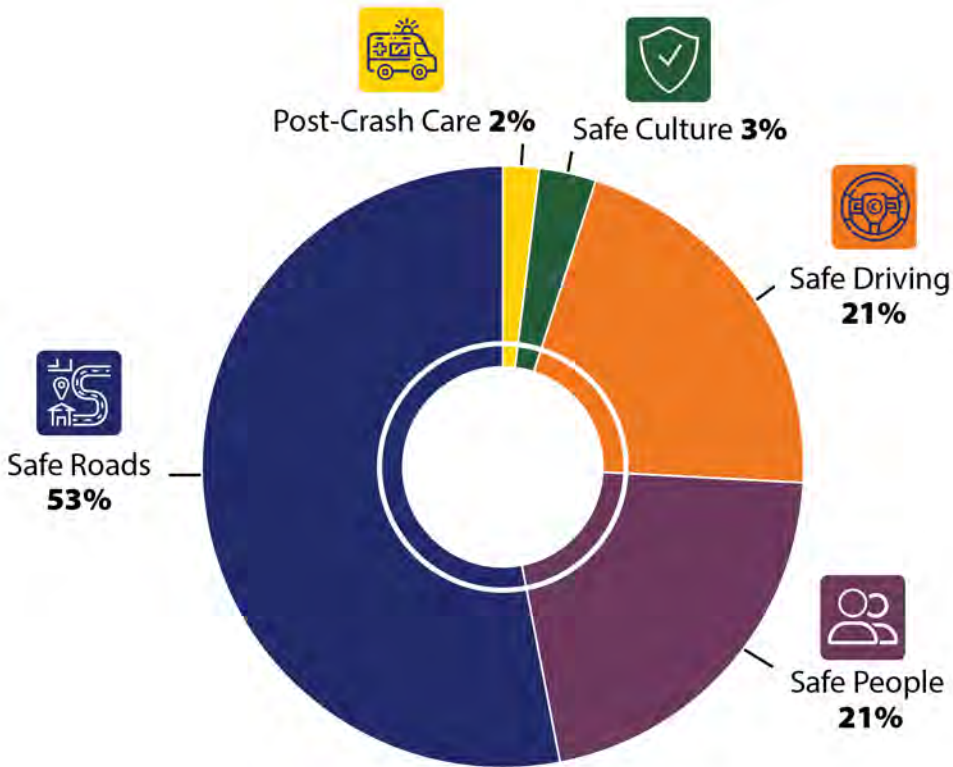


Figure 3-7: A chart showing percentage of online comments by Emphasis Areas



Figure 3-8: Comments from Social Pinpoint about Safe Roads and Safe Driving



## One-on-One Meetings

In addition to the kickoff meeting and the ten stakeholder workshops, one-on-one meetings were conducted with agencies and individuals as requested or needed.

## What We Heard

Participants shared similar themes across the workshops reflecting a statewide commitment to improving roadway safety and reducing fatalities and serious injuries in Colorado. The following points and key takeaways summarize the participant feedback on common safety issues, highlighting concerns, needs, and strategies to enhance safety.

- » The need for mandatory, accessible driver's education programs for all ages, particularly in rural and under-resourced areas.
- » Increased funding for law enforcement and safety initiatives.
- » Recognizing that specific communities face heightened transportation safety risks due to unsafe infrastructure, economic pressures, and limited access to resources.
- » The need for targeted safety interventions, such as addressing urban intersection crashes, rural roadway departures, and crash causation.
- » The impact of driver behavior factors such as distracted driving, speeding, and unsafe cultural norms further exacerbate risks, highlighting the need for comprehensive education campaigns, stricter law enforcement, and innovative solutions.
- » The value of stronger collaboration between CDOT, local agencies, and community organizations, including support for navigating grant funding opportunities.
- » Building a culture of safety by engaging communities, prioritizing education, and strengthening policies.

Feedback included Region-specific feedback in addition to broader safety input. A full summary document of each of the workshops was provided to CDOT Regional Traffic Engineers and is included in the Appendix.



## Chapter 4: Emphasis Areas Overview & Approach

## Introduction

Colorado's Emphasis Areas, based on the Safe System Approach, include Safe Driving, Safe People, Safe Roads, Safety Culture, and Post-Crash Care. Subsequent chapters describe strategies to improve the priority Focus Areas in each Emphasis Area. General descriptions of these strategies for each Emphasis Area are described below.

- » **Safety Culture:** focuses on strategies to grow safety culture in organizations and among the general public to support safer practices and behaviors.
- » **Safe Driving:** focuses on strategies that influence safer driver behaviors and address key issues like impaired driving, distracted driving, aggressive driving, speeding, and occupant protection.
- » **Safe People:** focuses on protecting Vulnerable Road Users (VRUs), which include pedestrians, bicyclists, motorcyclists, first responders, and roadway crews in work zones.
- » **Safe Roads:** identifies and implements noteworthy practices to improve the built environment with leading edge infrastructure and designs that facilitate safe trips for all modes and all roadway users.
- » **Post-Crash Care:** identifies strategies to increase survivability of crashes through timely emergency response, improved access to emergency medical care, safer conditions for first responders, and improved Traffic Incident Management (TIM) practices.

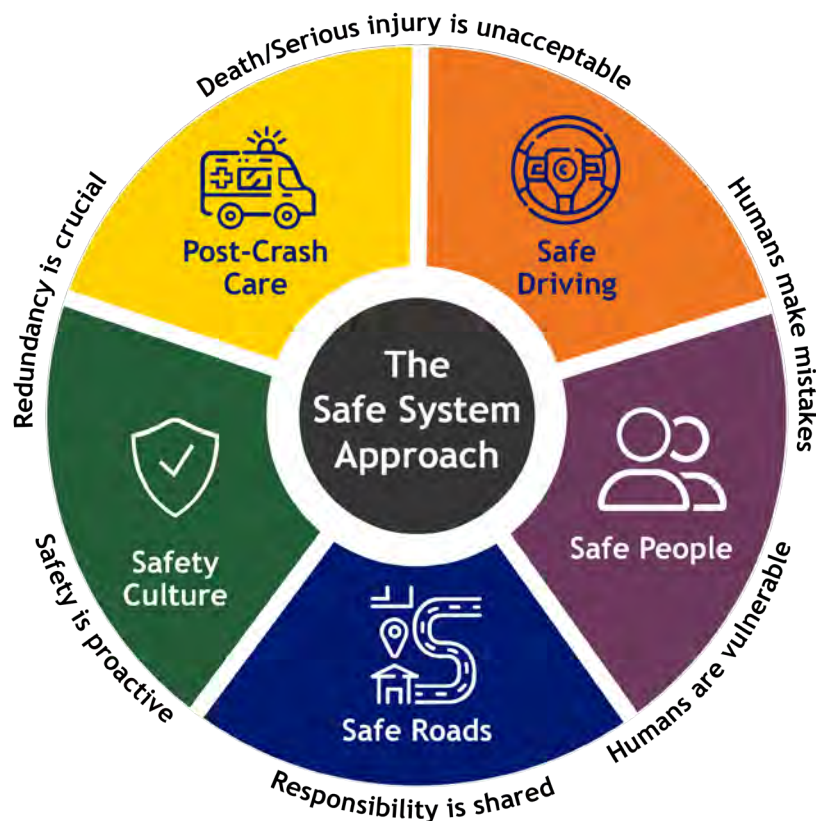


Figure 4-1: The Colorado Safe System Approach



## Emphasis Area Approach

The five Emphasis Areas include 20 Focus Areas described in Chapters 5 through 9 and five additional Focus Areas (see below for further details on: Double Down on Success Focus Areas).

Data analysis and stakeholder feedback from Subject Matter Experts (SMEs) were used to identify Focus Areas that had the highest potential to improve safety. Each Emphasis Area includes Focus Areas that comprise a large portion of fatalities and serious injuries. Guided by these Focus Areas, SMEs and the Steering Committee developed strategies to guide safety improvements.

Grouped by their respective Emphasis Areas, the 20 key Focus Areas are listed below:



### Safety Culture

- » Organizational
- » Public



### Safe Driving

- » Occupant Protection
- » Impairment
- » Aggression
- » Speeding
- » Distraction



### Safe People

- » Motorcyclists
- » Aging Drivers
- » Young Drivers
- » Pedestrians
- » Bicyclists
- » Work Zones
- » First Responders



### Safe Roads

- » Lane Departures
- » Off-System
- » Intersections
- » Speed Management



### Post-Crash Care

- » Traffic Incident Management
- » Emergency Medical Services

## Double Down on Success Focus Areas

Five (5) of the SHSP's Focus Areas (Vehicle Wildlife, Commercial Vehicles, Children Passenger Safety (Under 15), Winter Weather Related, and Highway-Rail Grade Crossings) currently have robust programs and policies in place to address crashes resulting in fatalities and serious injuries. These Focus Areas are already experiencing stable or improved crash outcomes. Safety improvement actions currently underway within these focus areas will continue to be supported through SHSP implementation.







Wildlife-  
Vehicle  
Collisions



Commercial  
Vehicles



Children  
Passenger  
Safety  
(under 15)



Winter Weather  
Related



Highway-  
Rail Grade  
Crossings



**Wildlife-Vehicle Collisions** Wildlife on roadways pose danger to drivers and wildlife alike. There were 132 fatal and serious injury wildlife-related crashes from 2019 to 2023 which is less than 1% of the total fatal and serious injury crashes during that time period. Countermeasures like installation of wildlife fencing, roadside animal detection systems, and wildlife overpasses can mitigate these crashes.



**Commercial Vehicles** Safe travel for commercial motor vehicles (CMV) throughout the state ensures both the health and wellbeing of roadway users, as well as the efficient operation of the freight network. Between 2021 and 2023, crashes involving CMVs made up 3% of the total fatal and serious injury crashes. The Colorado Freight Plan (2024) identifies nine safety-focused strategies that will continue to support CMV safety which includes strategies to enhance truck parking, rail safety, safety data, and communication efforts.



**Children Passenger Safety (Under 15)** Parents and caregivers are responsible for properly restraining children and may be ticketed if they fail to do so. In January 2025, the state updated Colorado's child passenger safety law to reflect the latest research-based recommendations on car seat, booster seat, and seat belt use for children. Resources are available to parents and caregivers including free car seat checks, inspection stations, and car seat fit recommendations.



**Winter Weather Related** Driving in Colorado winter weather can be dangerous if drivers are not prepared for unexpected conditions. From 2019 to 2023, winter weather-related crashes contributed to 4% of total fatal and serious injury crashes. Colorado employs various measures to increase winter weather driving safety including snow removal, avalanche control, traction and chain law enforcement, and various education and communication programs to promote safe driving behaviors.



**Highway-Rail Grade Crossings** The Colorado Public Utility Commission is responsible for safety at over 3,000 highway-rail grade crossings through education, enforcement, and engineering solutions. According to Federal Railroad Administration data, 14 fatalities occurred at Colorado highway-rail grade crossings from 2020 to 2024. Twelve (12) of these 14 fatalities occurred at public crossings, and 6 of the 14 fatalities involved motor vehicles at public crossings.

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Winter weather and wildlife can catch unsuspecting drivers off guard, especially out-of-state drivers such as commercial vehicle drivers. While winter weather and commercial vehicles did not rise to the top in terms of related fatalities and serious injuries, these were noted as concerns during the stakeholder engagement and Colorado will continue efforts to address these concerns.

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## Emphasis Area Roadmap

Each Emphasis Area and its associated Focus Areas and strategies are detailed in Chapters 5 through 9. Stakeholders can use the Emphasis Area chapters to better understand the Emphasis Area, the Focus Areas, and their associated crash characteristics, trends, and strategies for improvement. Below is a roadmap that summarizes what is included in each Emphasis Area chapter.

- » **Introduction to the Emphasis Area and Focus Areas:** Describes the Emphasis Area and how it relates to the included Focus Areas.
- » **Focus Area Definition:** Defines the crash type.
- » **Focus Area Goal:** Defines a goal to reduce fatalities and serious injuries.
- » **Focus Area Data Analysis:** Illustrates crash data analysis of the total fatalities and serious injuries from 2017 to 2023 compared to all crashes for each Focus Area. Due to Colorado's crash report form change in 2020, some Focus Areas only have data available from 2021 to 2023. This analysis also highlights the counties across Colorado with the highest number and per capita rate of fatal and serious injuries for that Focus Area. Unless otherwise noted, data that was utilized in the focus area analysis was sourced from Colorado's Statewide Crash Listings.<sup>1</sup>
- » **Focus Area Strategies:** Lists the strategies with a brief description and how the strategy will improve safety.

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<sup>1</sup> <https://www.codot.gov/safety/traffic-safety/data-analysis/crash-data>





## Chapter 5: Safety Culture



# Introduction

A strong transportation safety culture is fundamental to achieving zero fatalities and serious injuries on Colorado roadways. CDOT defines transportation safety culture as the shared values and beliefs of a group of people that influences behaviors that impact transportation safety.<sup>2</sup>

Transportation safety culture recognizes that different outcomes (i.e., safer consequences as reflected in fewer fatalities and serious injuries) require changes in behavior. Changing behavior requires shifting beliefs (see callout below: Beliefs Influence Behaviors). Thus, growing transportation safety culture involves growing foundational beliefs supportive of safer behaviors that improve consequences.



## Beliefs Influence Behaviors

Decades of research has established that beliefs influence behaviors. Beliefs like:

- » perception of risk (e.g., driving impaired increases the likelihood of crashing)
- » what others expect (e.g., a young driver's understanding of what is acceptable to their parent or a worker's understanding of their supervisor's expectations)
- » what is in our control (e.g., "I am comfortable asking someone else to use a seat belt.")

all have been shown to influence behavior.

This holds for driver behaviors (e.g., speeding) as well as behaviors by others involved in building a safe system such as planners, engineers, construction workers, law enforcement, leaders, elected officials.

Furthermore, this research has been used to develop interventions (e.g., training, coaching, rules/policies, media, countermeasures) to shift beliefs resulting in changes in behavior.

For example:

- » Training on best practices to reduce potential conflicts at intersections grows the knowledge and skills engineers need to design safer intersections thus resulting in new behaviors by engineers.
- » High visibility enforcement (HVE) supported by universal media increases the perception among drivers that they may be caught if they violate driving laws thus decreasing risky driving behaviors.
- » Establishing family rules about always using a seat belt, never driving distracted or impaired, and following speed limits grows an understanding of what is acceptable and unacceptable thus increasing safer behaviors and decreasing risky behaviors.

Implementing the strategies described in this document requires growing beliefs supportive of various actions among many stakeholders. Collectively, these shared beliefs describe the transportation safety culture.

## Beliefs

**Transportation Safety Culture** - shared values and beliefs of a group of people that influence behaviors that impact transportation safety.



## Behavior



## Consequences

<sup>2</sup> Adapted from National Academies of Sciences, Engineering, and Medicine. (2018). A Strategic Approach to Transforming Traffic Safety Culture to Reduce Deaths and Injuries. Retrieved from: <https://nap.nationalacademies.org/catalog/25286/a-strategic-approach-to-transforming-traffic-safety-culture-to-reduce-deaths-and-injuries>

A strong transportation safety culture embraces and champions safety at all levels including elected officials, state and local transportation related agencies, public and private organizations, and the general public. Laws (and their enforcement), policies and practices in both public agencies and private organizations, and behaviors by the public all impact safety consequences.



Because of the variety and number of stakeholders involved in improving transportation safety, the task of growing transportation safety culture can seem overwhelming. However, it can be broken down by group (e.g., elected officials, agency/organization leaders, transportation planners, engineers, law enforcement, schools, families, individuals) and by behavior. For example, Table 5-1 summarizes examples of supportive safety culture to foster the High-Impact Focus Area strategies identified in this plan (along with associated outcomes and safety consequences). For more details on High-Impact Focus Areas, see Chapter 10.

Table 5-1: High-Impact Focus Area Strategies, Examples of Supportive Culture, Outcomes, and Consequences

| Strategy                                                                                                                                                                                                                                                                                                                                                                                 | Examples of Supportive Culture                                                                                                                                                                                                                                                                                       | Examples of Outcomes                                                                                                                                                                                                                                                     | Consequences                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Intersections</b> <ul style="list-style-type: none"> <li>» Reduce intersection conflicts.</li> <li>» Perform Intersection Control Evaluations.</li> <li>» Incorporate Vulnerable Road Users (VRUs) designs.</li> <li>» Address high-risk locations.</li> <li>» Improve traffic controls.</li> </ul> | <ul style="list-style-type: none"> <li>» Prioritization of safety.</li> <li>» Knowledge about best practices.</li> <li>» To reduce intersection conflicts.</li> <li>» VRU designs.</li> <li>» Traffic controls.</li> <li>» Shared expectations about using best practices.</li> </ul>                                | <ul style="list-style-type: none"> <li>» Intersections that reduce the likelihood of high-energy and side impact crashes.</li> <li>» More separation in space and time of VRUs and vehicles.</li> </ul>                                                                  | <ul style="list-style-type: none"> <li>» Reduction in intersection-related fatal and serious injury crashes.</li> </ul>                                                                           |
|  <b>Off-system</b> <ul style="list-style-type: none"> <li>» Local agency assistance.</li> <li>» Community-specific safety plans.</li> </ul>                                                                                                                                                             | <ul style="list-style-type: none"> <li>» Greater shared responsibility for safety.</li> <li>» Prioritization of safety.</li> <li>» Knowledge and skills in using proven countermeasures.</li> <li>» Knowledge and skills to complete safety plans.</li> </ul>                                                        | <ul style="list-style-type: none"> <li>» More local agencies using proven countermeasures.</li> <li>» More local agencies prioritizing safety in planning/design/build/maintenance phases.</li> </ul>                                                                    | <ul style="list-style-type: none"> <li>» Reduction in fatal and serious injury crashes on off-system roads.</li> </ul>                                                                            |
|  <b>Impairment</b> <ul style="list-style-type: none"> <li>» Polydrug impairment education.</li> <li>» High-visibility enforcement (HVE).</li> <li>» Address high-risk corridors.</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>» Greater shared responsibility for safety.</li> <li>» Knowledge about polydrug impairment among key stakeholders and partners.</li> <li>» Willingness, knowledge, and skills among law enforcement agencies and judicial systems to conduct HVE and adjudication.</li> </ul> | <ul style="list-style-type: none"> <li>» Increased knowledge about polydrug use and crash risk among public.</li> <li>» Increased perception of getting caught for DUI.</li> <li>» Fewer impairment-related crashes on corridors with high historical levels.</li> </ul> | <ul style="list-style-type: none"> <li>» Reduction in driving under the influence of multiple substances.</li> <li>» Reduction in impairment-related fatal and serious injury crashes.</li> </ul> |
|  <b>Lane Departures</b> <ul style="list-style-type: none"> <li>» Install traffic controls and safety barriers.</li> <li>» Improve roadway geometry.</li> </ul>                                                                                                                                        | <ul style="list-style-type: none"> <li>» Prioritization of safety.</li> <li>» Knowledge and skills in traffic controls, safety barriers, and roadway geometry.</li> <li>» Shared expectations about using best practices.</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>» More miles of roadways with controls and safety barriers.</li> <li>» Fewer high-risk locations for lane departure due to roadway geometry.</li> </ul>                                                                           | <ul style="list-style-type: none"> <li>» Reduction in run-off-the-road fatal and serious injury crashes.</li> </ul>                                                                               |
|  <b>Occupant Protection</b> <ul style="list-style-type: none"> <li>» Media campaigns regarding proper use.</li> <li>» Education regarding a primary seat belt law.</li> </ul>                                                                                                                         | <ul style="list-style-type: none"> <li>» Knowledge about occupant protection and primary seat belt law among stakeholders and partners.</li> </ul>                                                                                                                                                                   | <ul style="list-style-type: none"> <li>» Increase in beliefs supportive of always wearing a seat belt.</li> <li>» Increase in seat belt use.</li> <li>» More understanding of the benefits of a primary seat belt law.</li> </ul>                                        | <ul style="list-style-type: none"> <li>» Reduction in unrestrained occupants killed or seriously injured in crashes.</li> </ul>                                                                   |
|  <b>Motorcycles</b> <ul style="list-style-type: none"> <li>» Motorcyclist safety training.</li> <li>» Licensing and endorsement.</li> <li>» Increase helmet use.</li> </ul>                                                                                                                           | <ul style="list-style-type: none"> <li>» Knowledge and skills on best-practices for motorcyclist safety training.</li> <li>» Beliefs among motorcyclists of benefits of always using a helmet.</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>» Increase in safety skills and knowledge among motorcyclists.</li> <li>» Increase in motorcycle endorsements.</li> <li>» More motorcyclists always using a helmet.</li> </ul>                                                    | <ul style="list-style-type: none"> <li>» Reduction in fatal and serious injury crashes involving motorcyclists.</li> </ul>                                                                        |



# Colorado's Current Transportation Safety Culture

Transportation safety culture is challenging to measure because it involves people’s values and beliefs. One way that Colorado monitors transportation safety culture among the public is through self-report surveys.

Since 2016, the Colorado Department of Transportation (CDOT) conducts an annual Driver Behavior Survey. This survey asks a representative sample of adult drivers in Colorado about their beliefs and self-reported behaviors regarding a variety of issues including seat belt use, speeding, distracted driving, impaired driving, motorcycle safety, and pedestrian safety. Observational data on seat belt use, distracted driving, and speeding provide additional understanding of road user behavior.

Concern of getting caught for violating traffic laws may reduce risky driving behaviors. Countermeasures such as high visibility enforcement seek to grow the perception of getting caught as a way to reduce risky driving behavior. Table 5-2 summarizes perceptions of getting caught from 2021 to 2024 gathered from the Driver Behavior Survey. The results indicate a decreasing trend for both lower- and higher-speed roads. For instance, the proportion of respondents with a perception of getting caught for speeding on a 65 mph road decreased from 53% in 2021 to 41% in 2024.

Table 5-2: Perception of Getting Caught

| Very Likely or Somewhat Likely to get a ticket / DUI                                                   | 2021 | 2022 | 2023 | 2024 |
|--------------------------------------------------------------------------------------------------------|------|------|------|------|
| Not using a seat belt at all over the next 6 months                                                    | 50%  | 39%  | 40%  | 42%  |
| Driving consistently over the speed limit on a local road where the speed limit is 30 mph              | 63%  | 59%  | 55%  | 58%  |
| Driving consistently over the speed limit on a road where the speed limit is 65 mph                    | 53%  | 42%  | 45%  | 41%  |
| Drinking alcohol and the amount of alcohol in their body was more than what the law allows for drivers | 72%  | 70%  | 68%  | 72%  |
| Using cannabis and the amount of marijuana in their body was more than what the law allows for drivers | 59%  | 54%  | 58%  | 59%  |

Source: CO Driver Behavior Survey: 2021 n=527, 2022 n=843, 2023 n=929, 2024 n=935

Another belief that may reduce risky driving is an individual’s beliefs about how safe or dangerous the behavior is. Table 5-3 shows the percentage of Colorado adult drivers who strongly agree that they can drive safely under the influence of impairing substances (agreement with these statements potentially increases the likelihood of engaging in impaired driving). Unfortunately, the percentage has increased for those who believe they can safely drive under the influence of marijuana (from 9% in 2021 to 12% in 2024). On a positive note, the percentages have decreased for those who believe they can safely drive under the influence of alcohol (from 15% in 2021 to 9% in 2024) and prescription medications (from 16% in 2021 to 11% in 2024).

Table 5-3: Perception of Risk

| Agree (Strongly or Somewhat)                                                             | 2021 | 2022 | 2023 | 2024 |
|------------------------------------------------------------------------------------------|------|------|------|------|
| “I can safely drive under the influence of alcohol”                                      | 15%  | 9%   | 9%   | 9%   |
| “I can safely drive under the influence of marijuana”                                    | 9%   | 14%  | 11%  | 12%  |
| “I can safely drive after using certain prescription medications (other than marijuana)” | 16%  | 11%  | 8%   | 11%  |

Source: CO Driver Behavior Survey: 2021 n=527, 2022 n=843, 2023 n=929, 2024 n=935

Additionally, CDPHE conducts a biannual Healthy Kids Survey (<https://cdphe.colorado.gov/hkcs>) of high school students across Colorado. This survey measures self-reported behaviors such as texting while driving and impaired driving (Table 5-4) as well as related behaviors such as underage drinking and cannabis use (Table 5-5) which are associated with impaired driving. It also assesses beliefs predictive of risk (e.g., perception of harm) and protection (e.g., healthy expectations of important others such as parents).

Data reveal that self-reported traffic safety behaviors have remained stable or improved over the past decade, but that recent results indicate setbacks in driving while impaired (alcohol or cannabis) as well as texting while driving.

Table 5-4: Traffic Safety Behaviors Among Colorado High School Students

| High School Student Behaviors                                                          | 2013 | 2015 | 2017 | 2019 | 2021 | 2023 |
|----------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Usually or always used a seat belt                                                     | 94%  | 93%  | 95%  | 95%  | 96%  | 96%  |
| Driving under the influence of alcohol in the past 30 days (among students who drive)  | 8%   | 7%   | 6%   | 6%   | 4%   | 7%   |
| Driving under the influence of cannabis in the past 30 days (among students who drive) | 11%  | 10%  | 9%   | 11%  | 6%   | 7%   |
| Texted or emailed while driving in the past 30 days (among students who drive)         | 36%  | 36%  | 36%  | 37%  | 32%  | 33%  |
| Rode with a driver in the past 30 day who had been drinking alcohol                    | 18%  | 16%  | 15%  | 16%  | 13%  | NA   |
| Rode with a driver in the past 30 day who had been using cannabis                      | 20%  | 20%  | 19%  | 19%  | 12%  | NA   |

Source: Healthy Kids Colorado High School Survey (<https://cdphe.colorado.gov/hkcs>)

Table 5-5: Substance Use Behaviors Among Colorado High School Students

| High School Student Behaviors          | 2013 | 2015 | 2017 | 2019 | 2021 | 2023 |
|----------------------------------------|------|------|------|------|------|------|
| 30-day use of alcohol                  | 31%  | 30%  | 29%  | 30%  | 24%  | 20%  |
| Binge drinking (4/5 drinks in 2 hours) | 17%  | 17%  | 16%  | 14%  | 13%  | 12%  |
| 30-day use of cannabis                 | 20%  | 21%  | 19%  | 21%  | 13%  | 13%  |

Source: Healthy Kids Colorado High School Survey (<https://cdphe.colorado.gov/hkcs>)

These surveys provide greater understanding of Colorado’s Transportation Safety Culture. Because these surveys are performed annually or biannually, they provide a way of assessing changes over time, identifying trends early, and evaluating potential effects of countermeasures.

## Focus Areas

The Safety Culture Emphasis Area includes eight strategies in two Focus Areas: organizational and public. These two Focus Areas were selected based on stakeholder input, their potential to achieve improvement, and their potential impact on safety consequences.

Unlike other Emphasis Areas, the Safety Culture Focus Areas do not include Transportation Disadvantaged Index (TDI) maps nor specific crash reduction goals. Rather, the Safety Culture Emphasis Area contributes to the strategies (and their associated goals) included in each of the other Emphasis Areas.

## Organizational Safety Culture

Strategies in this plan will be implemented by organizations at the state and local level. Therefore, successful implementation requires growing knowledge about this plan (and how organizations can contribute to strategies) and growing organizational safety culture. Organizations with strong safety cultures proactively elevate the importance of transportation safety by integrating safety into every aspect of programming and projects. For transportation-related organizations, safety is prioritized in the planning, scoping, design, construction, and maintenance of all projects and is a part of everyone’s role regardless of job title. A key component is strong support from leaders, managers, and supervisors. Executive leadership must establish expectations prioritizing safety and hold those under them accountable to these expectations. Organizational leaders must translate safety into policies, practices, and every day behaviors and hold all staff accountable to these expectations.

### Organizational Strategies

The strategies in this section focus on growing organizational safety culture by conducting assessments, building capacity among organizations, and fostering ongoing sharing of trends, best practices, and innovations.



### SC1: Conduct organizational safety culture assessments

**Build traffic safety culture at the community level by growing traffic safety culture within influential organizations.**

Adoption of the strategies in this plan requires a strong safety culture among various organizations (transportation and non-transportation related). This strategy aims to grow safety culture among organizations by using an assessment to identify gaps and opportunities for improvement. Organizational safety culture assessments identify gaps in areas such as leadership, policy, training, and employee engagement and motivate improvement. Assessments provide organizations with concrete steps they can take to improve their safety culture and increase use of best practices to improve transportation safety. The Federal Highway Administration (FHWA) Organizational Safety Culture Self-Assessment Toolkit helps organizations adopt best practices to enhance safety, particularly in transportation-related activities.

### SC2: Support local agency programs (LTAP and Safety Circuit Rider)

**Continue to support the Local Technical Assistance Program (LTAP) and Safety Circuit Rider in their efforts to assist local agencies.**

A significant portion of fatal and serious injury crashes occur on off-system roads. The Colorado LTAP provides a wide range of support to local agencies while the Colorado Safety Circuit Rider's mission is to provide safety-related technical assistance to local agencies developing infrastructure safety improvement projects located off the state highway system. The LTAP and Safety Circuit Rider will facilitate growth of safety culture among organizations by supporting local safety assessments and improvement plans; fostering improved communication and collaboration among local, regional, and state partners; and growing the skills and knowledge of staff by providing training and technical assistance to support the adoption of best practices and access to federal and state resources.



The Safety Circuit Rider's mission is to work hand-in-hand, boots on the ground, with local agencies to identify, diagnose, and treat safety deficiencies on the local roadway system. Safety on locally maintained ("off-system") roads is a significant issue statewide, and many local agencies lack the resources or technical expertise to perform this work without outside assistance.

Figure 5-1: CDOT's Safety Circuit Rider Program Supports Local Agencies and Colorado's Rural Areas.  
Source: CDOT

### **SC3: Expand public engagement**

**By providing training and technical assistance, build the capacity of organizations to successfully engage the public in two-way, productive conversations to grow shared understanding and responsibility.**

Both roadway owners (e.g., state and local governments) and roadway users have a shared responsibility to improve transportation safety. Roadway owners are responsible for planning, design, education, and maintenance while users are responsible for the decisions they make using the system along with their engagement and support in its funding and design. Adopting shared responsibility is often inhibited by the separation between those impacting changes to the transportation system (owners) and those impacted by changes to the transportation system (users). Oftentimes, engaging in transportation planning and engineering conversations has required users to participate in limited ways (e.g., public meetings) and know certain terms/language and relevant data, excluding important community stakeholders from conversations about local safety concerns and projects. This strategy aims to build the capacity of organizations to successfully engage the public in two-way, productive conversations resulting in greater shared understanding and responsibility.

### **SC4: Consider communities with below average safety outcomes when making transportation safety investment decisions**

**Increase investment in communities with below average safety outcomes to reduce safety disparities by increasing awareness of community transportation safety needs and providing support to local agencies and organizations.**

This strategy aims to address safety disparities in communities disproportionately impacted by traffic safety challenges by increasing investment and building a network of support for local agencies. It focuses on improving the skills of local agencies to procure funding and enhance infrastructure and safety programming for communities including but not limited to Vulnerable Road Users (VRUs), young and aging drivers, and other transportation system users as defined in Section 24-4-109 of the Colorado Revised Statutes.

### **SC5: Enhance collaboration and information sharing among traffic safety professionals**

**Continue annual Colorado Traffic Safety Summits to engage, educate, and inspire Colorado transportation professionals from a wide variety of organizations to be safety champions and advance traffic safety culture in their organizations and communities.**

The Colorado Traffic Safety Summit is an annual event to engage, educate, and inspire Colorado transportation professionals from a wide variety of organizations to be safety champions and advance traffic safety culture in their organizations and communities. The Summit offers an opportunity for law enforcement, engineering, planning, education, public health, advocacy, emergency response, healthcare professionals and others to share recent trends, best practices, and innovative emerging approaches to improve transportation safety. The Summit grows shared knowledge, skills, and beliefs (i.e., transportation safety culture) supportive of this plan's strategies.

## Public Safety Culture

Communities with a strong safety culture have a shared understanding of their responsibility to be safe roadway users including understanding the risks and benefits associated with transportation decisions, choosing to make safe choices while navigating the transportation network. For instance, drivers and passengers in these communities are more likely to wear seat belts, use child safety seats, or wear helmets while operating a motorcycle. They recognize that their own driving behaviors can negatively impact others and choose to obey traffic laws, slow down at work zones, drive the speed limit, reduce distractions, and never drive impaired. They also support efforts within their community to improve transportation safety and create expectations within their families, neighborhoods, and workplaces that promote transportation safety.

### Public Strategies

#### **SC6: Pilot community-level safety culture partnerships**

**Utilize community-level pilot projects to learn and demonstrate effective safety practices.**

Behaviors related to engineering, post-crash care, law enforcement, and driving behaviors (e.g., impairment, speeding, distraction, seat belt use) have significant impact on fatal and serious injury crashes. Often, these behaviors can be most impacted at the community level. Somewhat new to transportation safety approaches, public health often uses community-level pilot projects to learn and demonstrate effective practices. These pilot projects may use different models (e.g., risk and protective factor models) engaging broad-based coalitions that address factors across the social environment (e.g., policy, law enforcement, funding, organizations, healthcare, schools, families, individuals) to improve safety. This strategy aims to improve transportation safety by partnering with public health on one or more pilot projects to grow traffic safety culture at the community level. Learning and demonstrating what's possible with a locally focused, public health project enables much broader and more effective programming in the future to reach more communities across Colorado.



## Locally-Based Transportation Projects

Public health has used locally-based projects for over two decades to address issues such as substance use among youth, mental health, violence, suicide, obesity, and cardiac health. These approaches typically form local coalitions with stakeholders representing a variety of sectors including schools, workplaces, law enforcement, non-profits, elected officials, media, and healthcare. These coalitions gather data about local consequences, behaviors, beliefs, and contextual factors (like alcohol outlet density or availability of healthy food). The data are used to identify risk and protective factors. Best practices to reduce risk factors and increase protective factors that are appropriate for the community are selected (from published research) and implemented. Implementation is monitored to assure fidelity to the way the practices were designed, and evaluations are used to track progress and assess outcomes. Over time, the process is repeated. Lessons learned are gathered and shared with other communities to facilitate replication.



Figure 5-2: Bike to Work Day Rider Appreciation Station. Source CDOT

### **SC7: Educate through media campaigns**

**Create and distribute universal education using media campaigns and resources.**

Educating the public about safe transportation practices, laws, risks, and benefits can be an effective way to grow transportation safety culture. This strategy develops, distributes, and promotes educational videos, stories, and information on a range of transportation safety topics including recently adopted laws, driver behavior, occupant protection, winter weather driving, and VRUs. This strategy includes partnering with new stakeholders and utilizes social media, billboards, videos, and school-focused materials.

### **SC8: Build capacity among the public**

**Expand on existing public engagement programming to build the capacity of the public to encourage two-way, productive conversations between everyday road users and government agencies by educating the public about ways to share concerns, transportation safety, and their role in growing a safer system.**

Improving transportation safety culture includes growing shared responsibility among transportation system owners and users, reflecting both the importance of safety in system design and the behavior of users. However, many transportation system users may not know how, have the right level of knowledge or language, or be comfortable sharing concerns or engaging in conversations. This strategy aims to expand on existing public engagement programming to build the capacity of the public to encourage two-way, productive conversations between everyday transportation users and government agencies by educating the public about ways to share concerns, transportation safety, and their role in growing a safer system.





## Chapter 6: Safe Driving





## Introduction

The Safe Driving Emphasis Area recognizes that driving behaviors are a key contributing factor in a significant proportion of fatalities and serious injuries that occur on Colorado’s roadways. Safe Driving targets high-risk driving behaviors, including distraction, aggression, impairment, occupant protection (seat belts and/or helmets), and speeding.

The Safe Driving Emphasis Area is a critical component of the Safe System Approach (SSA), highlighting that humans make mistakes that can lead or contribute to crashes. High-risk driving behaviors, such as unrestrained and speeding, significantly contribute to the crash severity outcome. The Safe Driving Emphasis Area focuses on encouraging safe, responsible driving behaviors.

The primary objective of the Safe Driving Emphasis Area within this plan is to bring focus on better understanding and influencing human behaviors and actions by all road users. This effort seeks to promote actions that encourage safe driving behaviors, reducing contributing factors to a large proportion of fatal and serious injury crashes on the roadway.

## Focus Areas

The Safe Driving Emphasis Area identifies five Focus Areas:

### Emphasis Area:



Safe Driving

### Focus Areas:



Occupant Protection



Impairment



Aggression



Speeding



Distraction



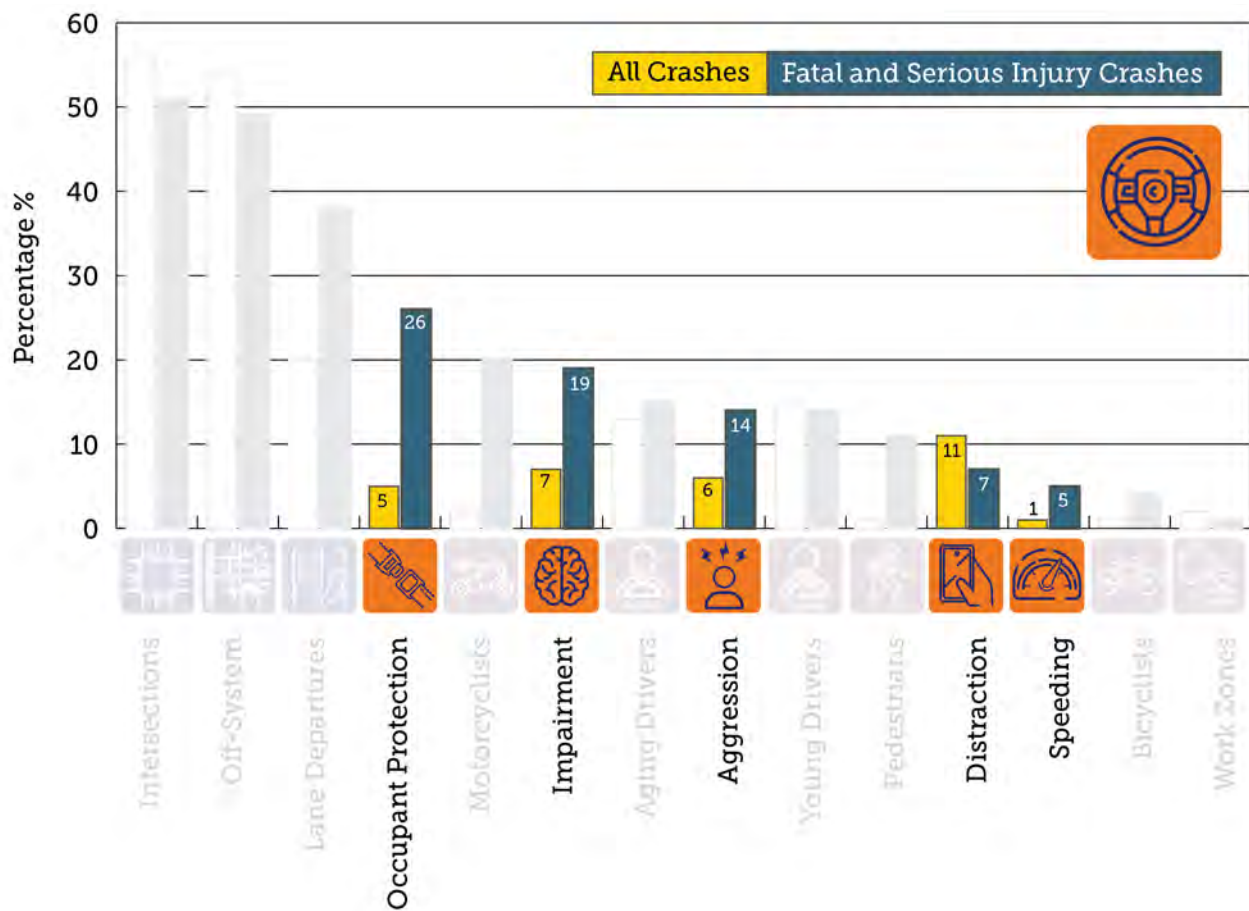


Figure 6-1: Percentage of Total & Fatal/Serious Injury Crashes Involving Focus Areas

The Safe Driving Emphasis Area focuses on different driver behaviors that result in severe crashes. The Focus Areas within this Emphasis Area have high potential for reducing or eliminating future severe crashes and include occupant protection, impairment, aggression, speeding, and distraction.

## Occupant Protection



**Focus Area Definition:** Crashes where safety restraints or helmets were not properly used by motor vehicle occupants.

**Focus Area Goal:** Reduce the number of severe crashes that involve improper restraint use or improper helmet use by five percent from the previous year through 2029.

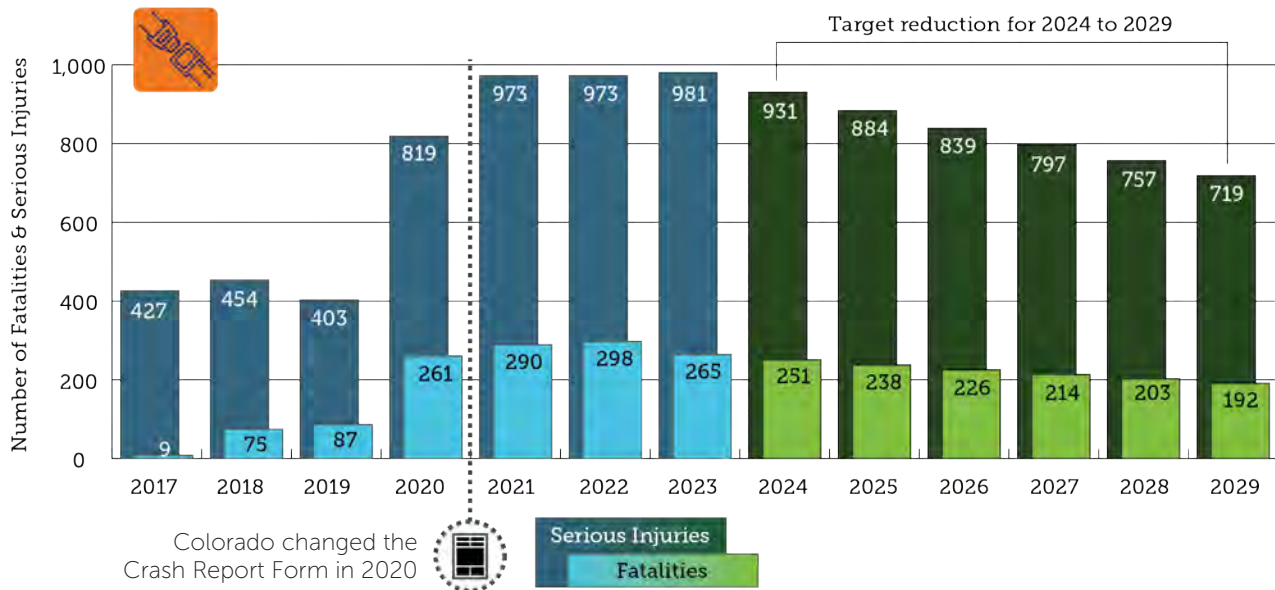


Figure 6-2: Occupant Protection-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Occupants not wearing or improperly using safety equipment (seat belts, helmets, etc.) were involved in five percent of the total crashes from 2019-2023, yet represent 26% of fatal and serious injury crashes, underpinning the severity of these crashes. The fatalities and serious injuries remain even between 2021 and 2023. Unrestrained fatalities and serious injuries occur more in rural settings (32%) compared to urban (23%), and 30% of the urban fatal and serious occupant protection-related crashes involved a motorcycle.

Restraint use reflects safety culture and starts with the driver. Detailed analysis into The National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS) national database found that driver restraint use is correlated with a reduction in unrestrained child deaths. Specifically, in crashes where a driver was unrestrained, 61% of children killed were also unrestrained. In crashes where a driver was restrained, 30% of children killed were unrestrained.<sup>3</sup> On a related positive note, CDOT's most recent Colorado Seat Belt Study (2024) observed an 88% seat belt usage rate, up 7% over the last decade.<sup>4</sup>

<sup>3</sup> FARS, <https://cdan.dot.gov/DataVisualization/DataVisualization.htm>

<sup>4</sup> CDOT releases seat belt study showing 7% usage increase since 2014 — Colorado Department of Transportation

Proven legislative countermeasures cited by NHTSA include primary enforcement seat belt use laws, increased fines, and strong child passenger safety laws. Effective high-visibility seat belt enforcement, specifically at nighttime, is another countermeasure that works to increase safety restraint use. Law enforcement is permitted to stop drivers under the age of 18 in the Graduated Drivers Licensing (GDL) program or stop a driver if they see a child under the age of 18 improperly restrained in the vehicle. Colorado does not have a primary seat belt law, meaning law enforcement cannot stop a driver over the age of 18 for not wearing a safety restraint. A citation may be given as a secondary offense.<sup>5</sup>

Increasing consistent and proper use of safety restraints presents an opportunity to have a significant positive impact on the fatalities and serious injuries in Colorado. The strategies identified in this Focus Area reflect proven effective actions implemented in other states. The goal is to promote awareness of the benefits of a primary seat belt law and increase support from citizens and legislatures to promote changes. Continued data-driven education, for occupants of all ages, will highlight the safety benefits of safety restraint use and shift the culture and acceptance.

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The Colorado Occupant Protection Task Force advocates for best practices in occupant protection safety. Established to increase awareness of seat belt use and child passenger safety throughout the state, the task force works to develop collaborative relationships and partnerships towards the goals of increasing occupant protection restraint usage and educating about the importance of strengthening existing occupant protection laws.

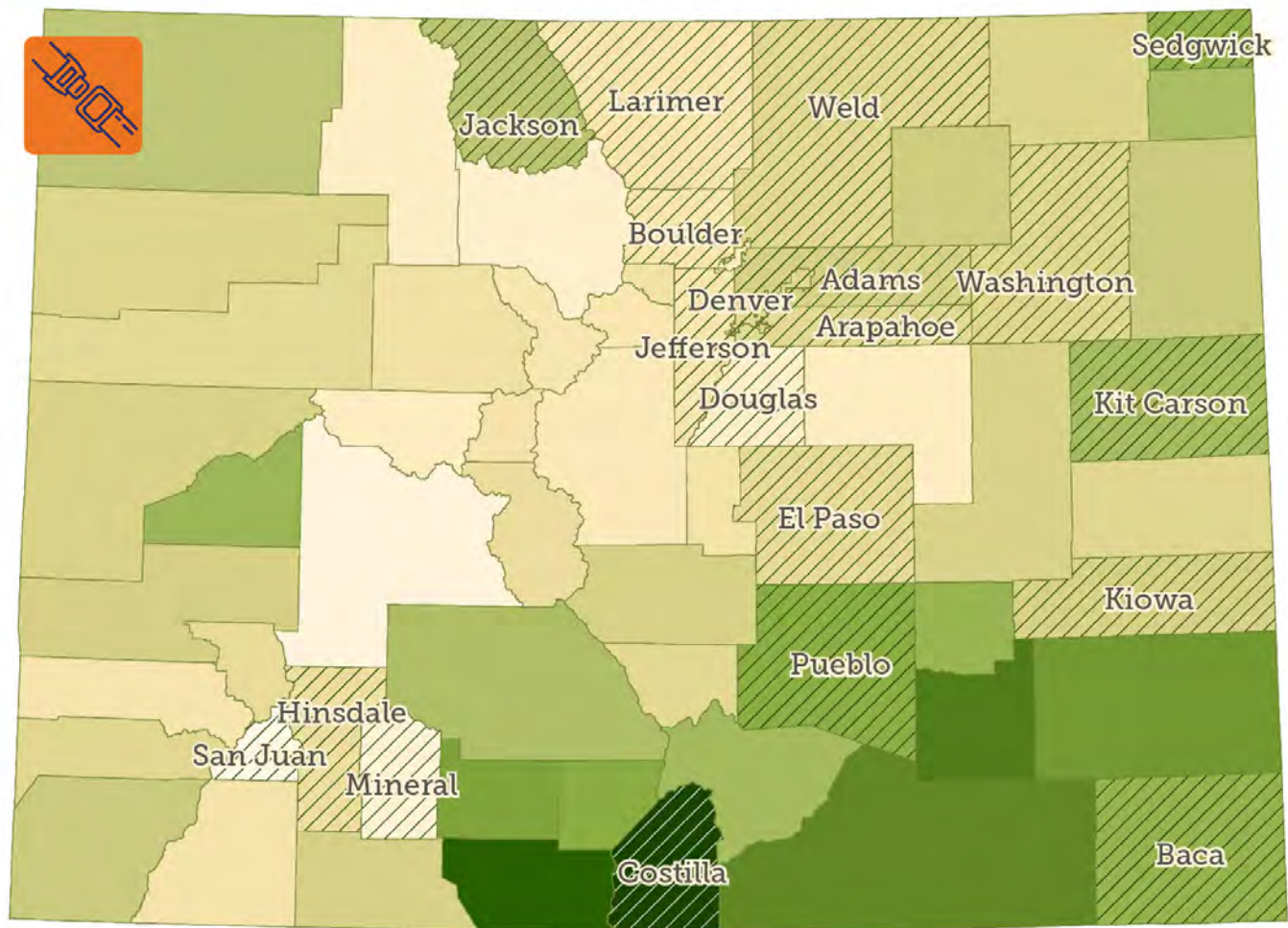
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Figure 6-3 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest occupant protection-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of occupant protection-involved fatalities and serious injuries are the counties along the Front Range. Top counties per capita tend to be rural counties to the north, east and southwest.

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<sup>5</sup> Seat Belts – Colorado Department of Transportation

Figure 6-3: Top Counties of Occupant Protection-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | Adams                | Jackson                 |
| 3    | Arapahoe             | San Juan                |
| 4    | Jefferson            | Costilla                |
| 5    | Weld                 | Baca                    |
| 6    | El Paso              | Kiowa                   |
| 7    | Larimer              | Washington              |
| 8    | Pueblo               | Kit Carson              |
| 9    | Boulder              | Hinsdale                |
| 10   | Douglas              | Sedgwick                |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



## Occupant Protection Strategies

### **SD1: Promote proper use through media campaigns**

**Continue to develop traffic safety media campaigns to support proper use of seat belts, child seats, and helmets.**

State agencies develop and promote educational videos, stories, and data stories on the importance of proper restraint use. This strategy focuses on partnering with additional stakeholders for more widespread dissemination for drivers and motor vehicle occupants.

### **SD2: Educate on primary seat belt law**

**Support educational efforts related to the importance of a primary seat belt law.**

This strategy promotes national research supporting the effectiveness of a primary seat belt law to educate legislators and safety partners. Collaboration with the Colorado Occupant Protection Task Force and similar safety partners is essential to advancing this strategy.

## Impairment



**Focus Area Definition:** Crashes where the driver is under the influence of alcohol, marijuana, or other drugs and is suspected, observed, or tested for impairment in the field by law enforcement.

**Focus Area Goal:** Reduce the number of severe crashes that involve impairment by five percent from the previous year through 2029.

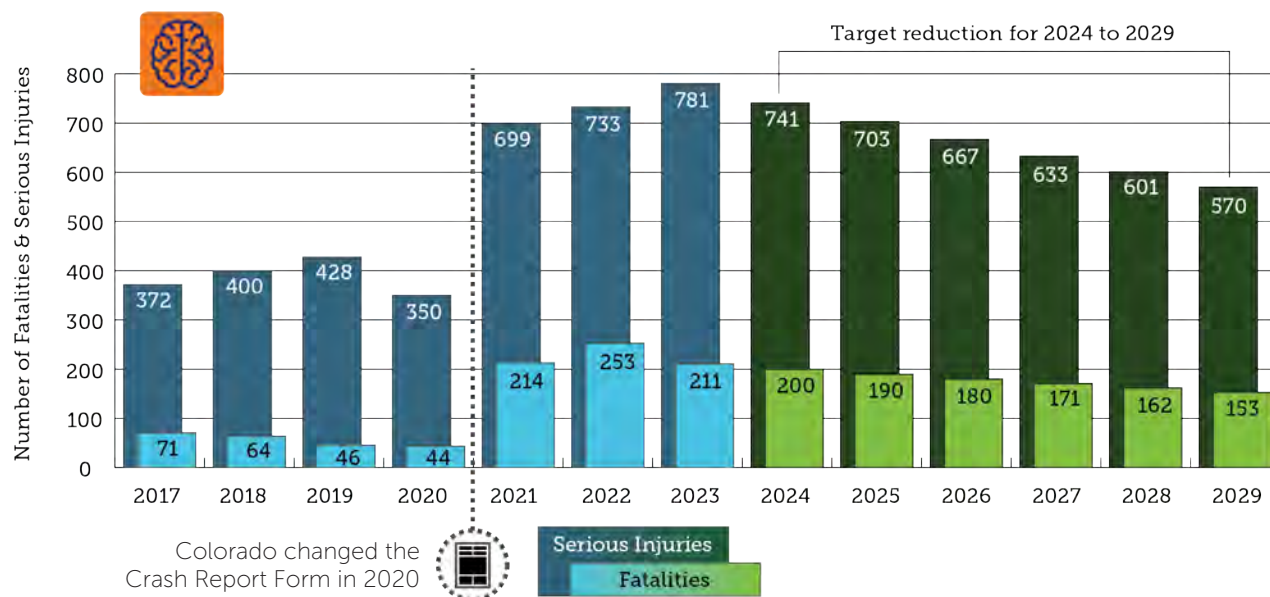


Figure 6-4: Impairment-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Impairment-involved fatalities and serious injuries increased 9% between 2021 and 2023, with the fatalities peaking in 2022 (Figure 6-4). Impairment was involved in 7% of all crashes but was involved in 19% of fatal and serious injury crashes, underscoring the severity of this Focus Area. Younger drivers, between the ages of 20 and 34, represent a higher proportion of the fatalities and serious injuries. Male drivers and motorcyclists are also overrepresented in the crash data. Motorcyclists make up 2.5% of all impairment-related crashes but 13.0% of the fatal and serious injury impairment-related crashes.

Although 68% of impairment-involved crashes occur in urban areas compared to 32% in rural areas, rural crashes are disproportionately severe—45% of all fatal and serious injury impairment-involved crashes take place in rural areas. In these impairment-involved crashes in rural areas, 76% of the fatalities and serious injuries are associated with lane departure crashes, and 47% occur on dark, unlighted roads. Impaired crashes most commonly occur on Friday, Saturday, and Sunday evenings between the hours of 6:00 p.m. and 1:59 a.m.

Driver impairment is reported based on the responding officer’s judgment and, therefore, may be underreported in Colorado crash data. Fatal crashes are the exception, as toxicology is run on all fatal crashes in the state. Alcohol continues to be the primary cause of impairment, yet polydrug use (the combination of two or more drugs including medications) is a growing concern related to impairment in the state. The Colorado Department of Public Safety noted that polydrug detection among all driving under the influence (DUI) cases more than doubled from 2016 to 2020—rising from 8% to 18%.<sup>6</sup>

Legislative and licensing countermeasures such as lower Blood Alcohol Concentration (BAC) levels, minimum drinking age laws, and administrative license revocation or suspension can be employed to discourage impaired-driving behaviors. Law enforcement agencies are important participants in preventing impairment-involved crashes, with high-visibility saturation patrols, alcohol measurement devices, and sobriety checkpoints noted as proven strategies to reduce impairment-related crashes.<sup>7</sup> Community groups, such as Regional Impaired Driving Task Forces, can help to change the local safety culture regarding impaired driving, particularly in rural areas and resort locations.

Several safety stakeholders are currently working to address impaired driving challenges. The Colorado State Patrol uses historical crash data to identify dates and locations for high-visibility enforcement strategies to efficiently and effectively prevent impaired-involved crashes. Additionally, the Colorado Task Force on Drunk & Impaired Driving continues to monitor the emerging challenges associated with impaired driving. The strategies in the SHSP complement these partner efforts and promote continued education and enforcement.

The mission of the Colorado Task Force on Drunk and Impaired Driving is to support the prevention, awareness, enforcement, and treatment of drunk and impaired driving in Colorado through strong partnerships with public, private, and non-profit organizations. Members of the task force are designated by statute and represent various state agencies, the law enforcement and legal community, safety advocates, private businesses, and citizens.

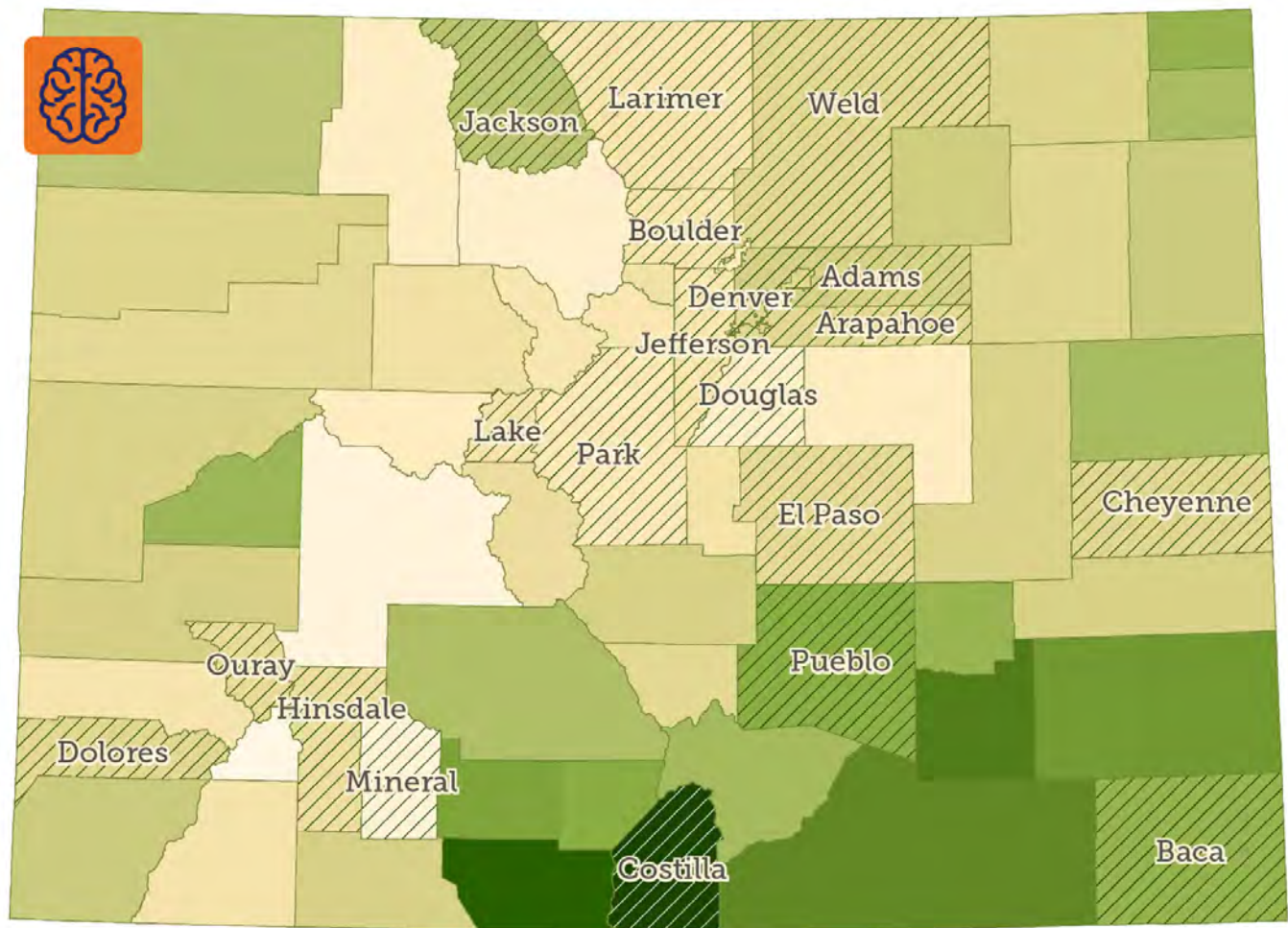
Figure 6-5 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest impairment-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of impairment-involved fatalities and serious injuries are counties along the Front Range. Top counties per capita tend to be rural counties in Eastern Colorado and Southwestern Colorado.

As with many of the Safe Driving Focus Areas, counties along the Front Range have the highest numbers of impairment-related fatalities and serious injuries while the more rural counties have higher rates per capita.

<sup>6</sup> Rosenthal, A. (2023). “Driving Under the Influence of Drugs and Alcohol. A Report Pursuant to C.R.S. 24-33.5-520.” Office of Research and Statistics, Division of Criminal Justice, Colorado Department of Public Safety.

<sup>7</sup> Kirley, B. B., Robison, K. L., Goodwin, A. H., Harmon, K. J. O’Brien, N. P., West, A., Harrell, S. S., Thomas, L., & Brookshire, K. (2023, November). Countermeasures that work: A highway safety countermeasure guide for State Highway Safety Offices, 11th edition, 2023 (Report No. DOT HS 813 490). National Highway Traffic Safety Administration.

Figure 6-5: Top Counties of Impairment-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | El Paso              | Jackson                 |
| 3    | Adams                | Cheyenne                |
| 4    | Arapahoe             | Baca                    |
| 5    | Jefferson            | Costilla                |
| 6    | Weld                 | Lake                    |
| 7    | Larimer              | Ouray                   |
| 8    | Boulder              | Hinsdale                |
| 9    | Pueblo               | Dolores                 |
| 10   | Douglas              | Park                    |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Stripping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



## Impairment Strategies

### **SD3: Provide polydrug impairment education**

Educate the public on the impacts of polydrug use.

This strategy is focused on gathering more data linking polydrug use to driver ability to operate a vehicle and sharing these findings through public communication campaigns. Enhanced data will be useful to educate the public on the impacts of multiple drugs, including both prescription and recreational drugs, on the impacts of driving.

### **SD4: Prioritize high-risk impaired driving corridors**

Identify high-risk corridors overrepresented in the crash data to make data-driven decisions to combat impaired driving.

The purpose of this strategy is to geolocate impairment-involved crashes to continue to assist law enforcement agencies with enforcement efforts. The data mapping can also support additional partners to collaborate on area-specific educational campaigns.

### **SD5: Continue high-visibility enforcement**

Continue to deploy data-driven high visibility impaired driving enforcement activities to deter impaired driving-related crashes.

This is a proven effective strategy that state and local law enforcement agencies deploy across the state. High-visibility enforcement increases the perception of getting caught and arrested, and deters impaired driving. Employing this strategy requires continued emphasis on collaboration between state and local agencies.

## Aggression



**Focus Area Definition:** Crashes where the driver engaged in aggressive driving behaviors, such as tailgating, cutting off other drivers, weaving behaviors, and other careless driving actions like disobeying traffic laws.

**Focus Area Goal:** Reduce the number of severe crashes that involve aggression by five percent from the previous year through 2029.

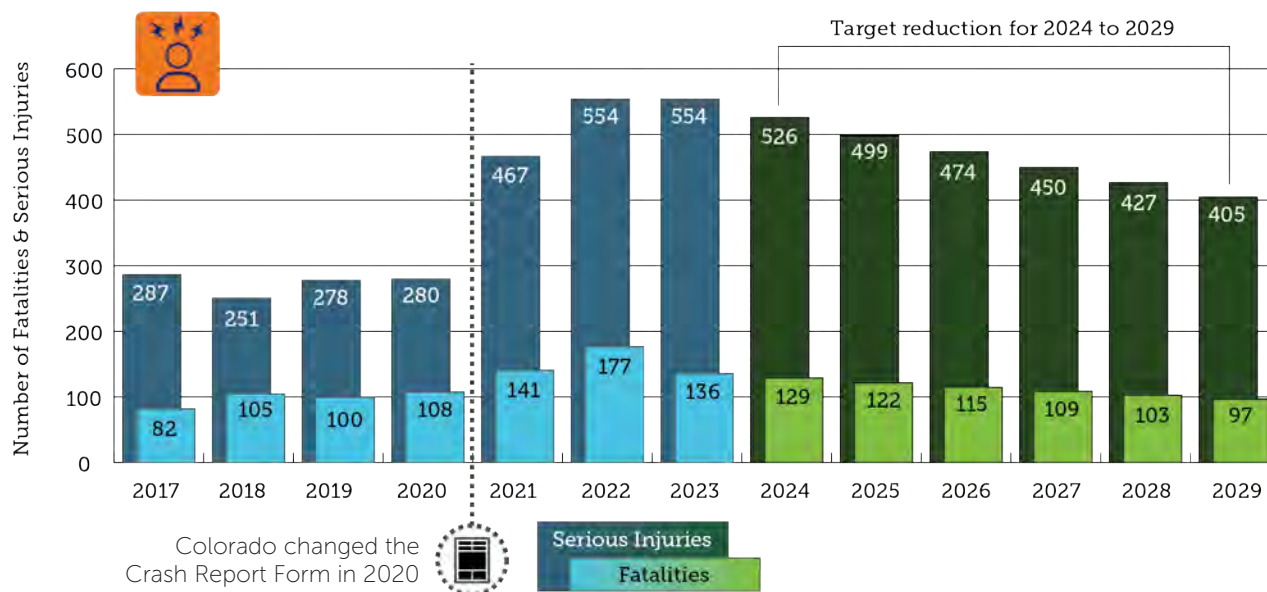
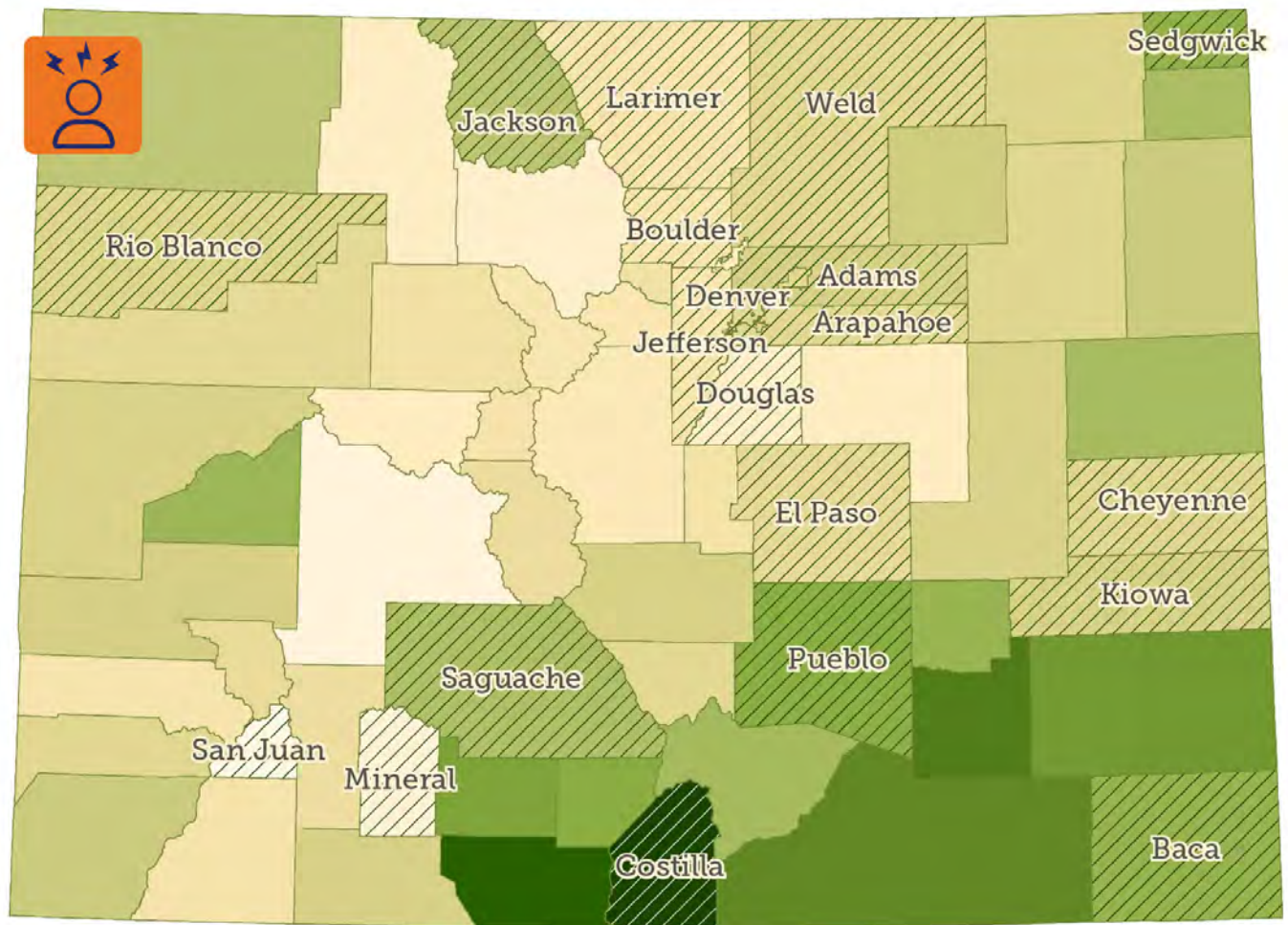


Figure 6-6: Aggressive Driving-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Aggressive driving accounts for 6% of all crashes but 14% of fatal and serious injury crashes. Figure 6-1 illustrates the seriousness of driver aggression, with aggression-involved fatalities and serious injuries increasing 13% between 2021 and 2023. Young drivers (ages 15 to 20) were involved in 19% of all fatal and serious injury crashes related to aggressive driving despite making up only 5% of licensed drivers in Colorado. This means they are nearly four times more likely to be involved in these types of crashes compared to their share of the driving population. Drivers aged 21 to 64 are involved in these crashes at rates proportionate to the share of licensed drivers. Older drivers (65 and up) make up 21% of licensed drivers, but were involved in only 8% of these crashes – meaning they are much less likely to be involved in aggression-related fatal or serious injury crashes.<sup>8</sup> Both aggression-involved crashes and those resulting in fatalities or serious injuries are shown to occur nearly equally in urban and rural settings. Just over 50% of the aggression-related crashes occurred off-system, and 47% occurred at intersections.

<sup>8</sup> Federal Highway Administration, Highway Statistics 2023, Table DL-22

Figure 6-7: Top Counties of Aggression-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Jackson                 |
| 2    | Adams                | San Juan                |
| 3    | El Paso              | Mineral                 |
| 4    | Arapahoe             | Cheyenne                |
| 5    | Weld                 | Baca                    |
| 6    | Jefferson            | Sedgwick                |
| 7    | Larimer              | Kiowa                   |
| 8    | Pueblo               | Costilla                |
| 9    | Boulder              | Saguache                |
| 10   | Douglas              | Rio Blanco              |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 6-7 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest number of aggression-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of aggression-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, the top counties are rural.

Improper use of occupant protection was involved in 10% of aggression-related crashes but 32% of the fatalities and serious injuries. Impairment was a contributing factor to 8% of all aggression-related crashes but 29% of the fatalities and serious injuries. Of the aggression-related crashes, speeding was involved in 2% of all crashes but 7% of fatal and serious injury crashes. Motorcyclists also represent a higher proportion of aggressive driving fatalities and serious injuries, representing 3% of all aggression-related crashes but 29% of the aggression-related fatalities and serious injuries.

These data points emphasize the confounding impact of other behavior-related contributing factors on the severity outcome of crashes. This Focus Area uses multi-prong strategies that address several behaviors. Countermeasures include enforcement efforts related to traffic laws covering speeds and lane changes as actions to address aggressive driving. Encroaching on other vehicles, disobeying traffic signals and signage, and making unsafe lane changes are other examples of aggressive behaviors that can be cited by law enforcement.

## Aggression Strategies

Strategies in this plan seek to highlight the importance of educating the driving public on the seriousness of aggression—both personally as a driver and as drivers in other vehicles avoiding or not engaging with an aggressive driver. Data collection on this type of crash continues to be important to identify specific corridors or regions with higher risk for aggression that can be addressed through enforcement and targeted educational efforts.

### **SD6: Deploy anti-aggressive driving campaigns**

**Develop anti-aggressive driving campaigns focused on populations overrepresented in the crash data.**

This strategy is intended to target educational and awareness campaigns to groups of drivers who represent higher proportions of aggression-involved fatalities and serious injuries. Drivers under the age of 34 and motorcyclists are overrepresented in crash data. Reducing aggressive driving behaviors in these populations provides the greatest opportunity to reduce the number of aggression-related fatalities and serious injuries throughout Colorado.

### **SD7: Prioritize high-risk aggressive driving corridors**

**Identify high-risk corridors overrepresented in the crash data to make data-driven decisions to combat aggressive driving.**

This strategy directs agencies to collect and analyze data to prioritize corridors where a higher percentage of aggression-involved crashes are occurring. Law enforcement agencies can use the data as appropriate to develop enforcement campaigns and employ other strategies in these high-risk corridors. Additionally, this could provide valuable information to identify root causes of behavior on why aggression may be occurring on certain roadways.



## Speeding



**Focus Area Definition:** Crashes where a motor vehicle was traveling over the posted speed limit or at speeds unsafe for conditions.

**Focus Area Goal:** Reduce the number of severe crashes that involve speeding by five percent from the previous year through 2029.

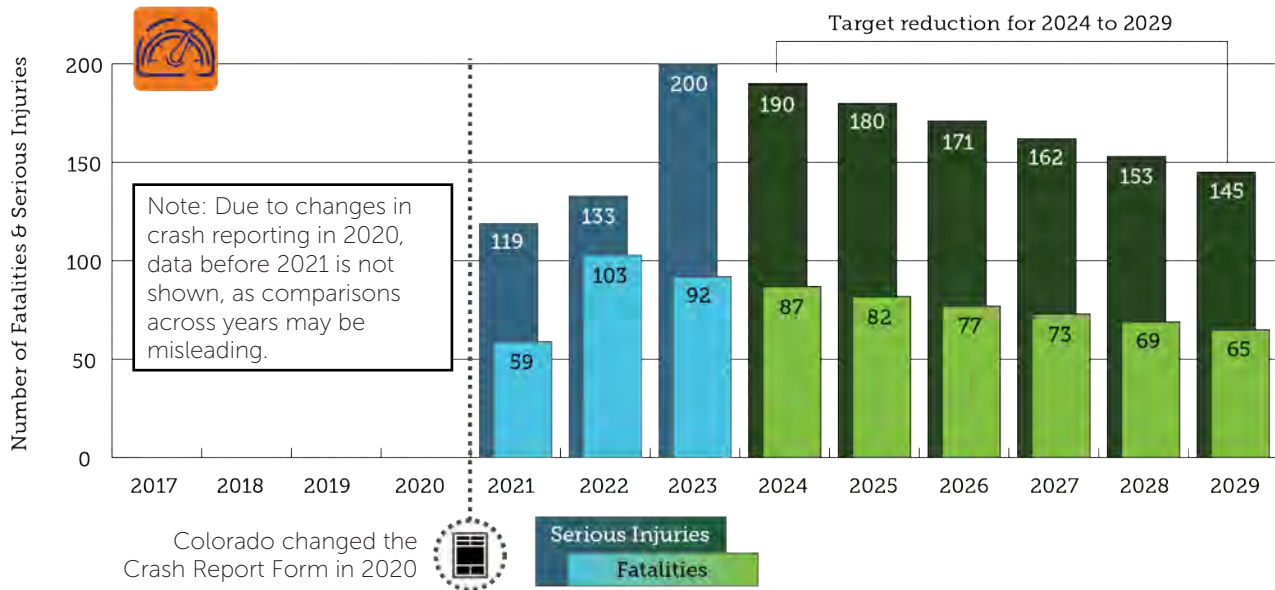


Figure 6-8: Speed-Involved Fatalities and Serious Injuries by Year (2021 to 2023)

Speeding is a topic that can be discussed through various lenses, including the choice to speed and how an environment encourages speeding behavior. The Safe Driving Emphasis Area focuses on the driving behavior, and the Speeding Focus Area emphasizes the driver's responsibility in selecting safe and appropriate speeds. The Safe Roads Emphasis Area (Chapter 8) discusses strategies related to speed management, infrastructure, and roadway environments to address speeding.

Between 2021 and 2023, speeding-involved crashes increased 60%, and fatalities and serious injuries increased 64% (Figure 6-8). These numbers represent one percent of total crashes and five percent of total fatalities and serious injuries in Colorado (refer to Figure 6-1 at the beginning of the chapter). It is important to note the significant data quality issues related to speeding-involved crashes. Crash data is limited to what is visible or known after a crash occurs, but it is thought that speeding is a significant contributor to many of the Emphasis Areas in this plan.

Speeding-involved crashes occur slightly more frequently in rural settings compared to urban, and drivers under the age of 34 are overrepresented in the crash data. Nearly half of the speeding-involved fatal and serious injury crashes occurred in rural areas, which is higher than the percentage of total speeding-involved fatal and serious crashes statewide (37.7%). Of the speeding-involved fatalities and serious injuries, 53% involved lane departure, 53% occurred off-system, 41% occurred at an intersection, and 22% involved young drivers from 15 to 20 years of age.

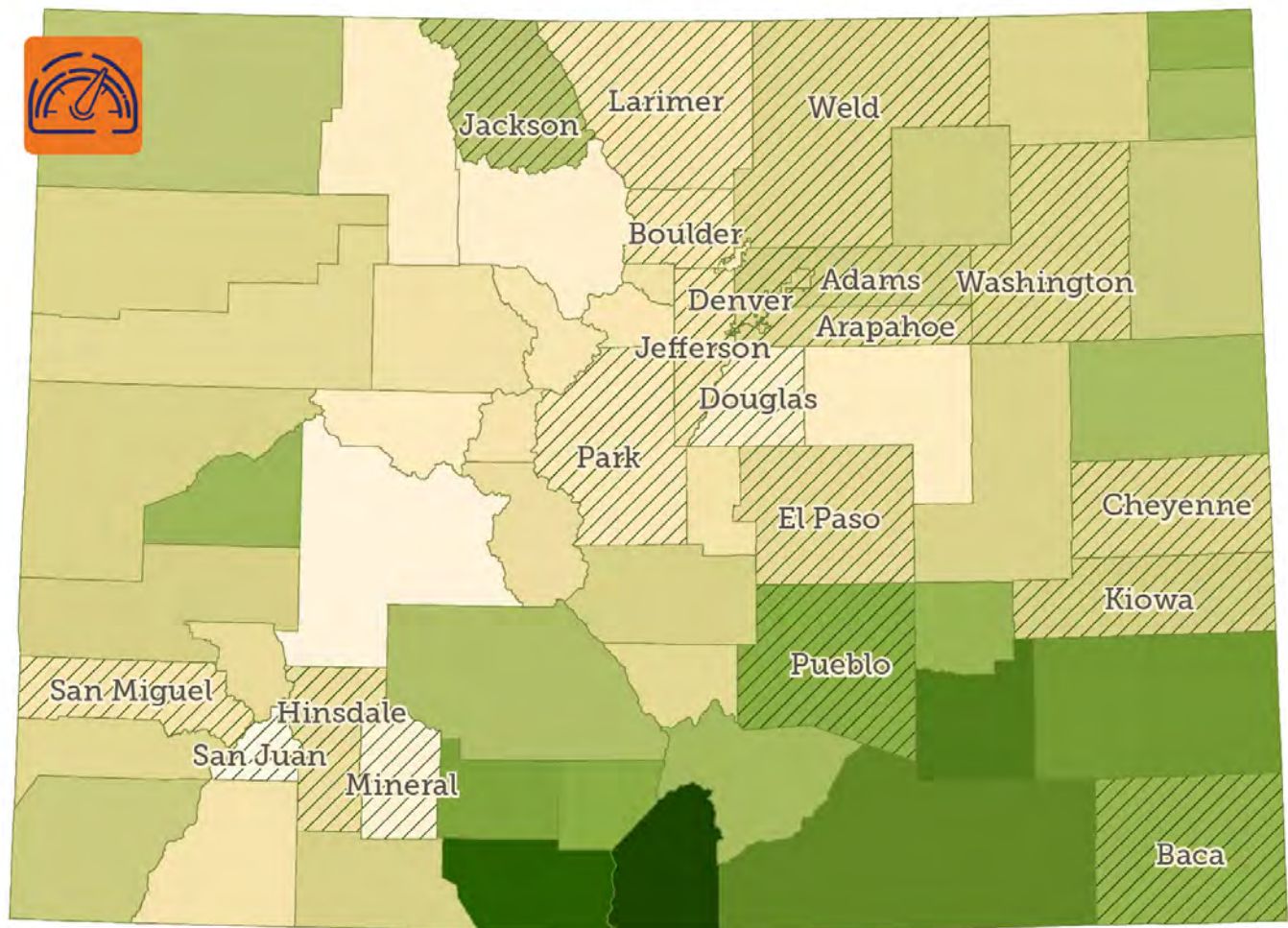
According to the 2024 Colorado Driver Behavior Survey, 69% of Colorado drivers said they drive over the speed limit on main highways, 48% speed on main city or town roads, and 26% speed on neighborhood roads. Of the drivers surveyed, 58% believed they would be stopped by law enforcement on local roads with speed limits of 30 mph, whereas 41% believed they would be stopped on roads with speed limits of 65 mph. This emphasizes that speeding on highways is perceived to be more acceptable. However, highlighting the SSA principle that humans are vulnerable; kinetic energy (which is significantly impacted by speed) is the top contributing factor to crash survivability. As the speed of a vehicle involved in a crash increases, so does the kinetic energy released and the likelihood of the crash resulting in a fatality or serious injury.

NHTSA-promoted countermeasures include a combination of legislation, enforcement, and the use of technologies to address behavior change. The strategies in this plan are intended to help Colorado gain deeper insights into the contributing behavioral factors to speeding-involved crashes and utilize innovative methods for reducing speeding behaviors.

Strategies include geolocating crashes and combining datasets then disseminating data analysis results to safety partners, such as law enforcement, to use for their education and enforcement activities. Additionally, new technologies continue to emerge to assist with data collection and enforcement. This plan promotes using information gleaned from the CDOT's Automated Speed Enforcement Program to expand this Emphasis Area's future activities.

In 2023, the Governor signed into law SB23-200: Automated Vehicle Identification Systems. This act expands the methods by which the state, a county, a city and county, or a municipality (jurisdiction) may deliver a notice of violation when a traffic violation is detected through the use of an automated vehicle identification system. The "speed camera" bill offers an important tool for communities to encourage safe driving behavior. This was updated with SB24-195 which changed Colorado Revised Statute 42-4-110.5, adding additional clarification regarding the protection of Vulnerable Road Users (VRUs).

Figure 6-9: Top Counties of Speeding-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | El Paso              | Mineral                 |
| 2    | Jefferson            | Baca                    |
| 3    | Adams                | San Juan                |
| 4    | Denver               | Jackson                 |
| 5    | Douglas              | Hinsdale                |
| 6    | Arapahoe             | Kiowa                   |
| 7    | Larimer              | Washington              |
| 8    | Boulder              | Cheyenne                |
| 9    | Weld                 | San Miguel              |
| 10   | Pueblo               | Park                    |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 6-9 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest speeding-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of speeding-involved fatalities and serious injuries are the counties along the Front Range. Top counties per capita tend to be rural counties along the Eastern Plains and Southwestern Colorado.

## Speeding Strategies

### **SD8: Prioritize high-risk speeding locations**

**Identify high-speeding-risk corridors overrepresented in the crash data and evaluate overlap between speeding and other high-risk driving behaviors.**

This strategy is intended to increase collection and analysis of speeding-related data and improve understanding of the linkages to other Focus Areas and identify locations where speeding occurs more frequently. Data collected under this strategy can also assist with illustrating connections between speeding and other high-risk driving behaviors within identified corridors.

### **SD9: Deploy speed safety camera systems**

**Use the results of a speed safety camera pilot program to make data-driven decisions on future installations.**

Under Colorado Revised Statute 42-4-110.5, Automated Vehicle Identification Systems (AVIS) are permitted for detecting traffic violations. CDOT's Automated Speed Enforcement Program will establish a pilot program to reduce speeding and increase safety in specified corridors. Pilot locations include work zones with two or more lanes of traffic in one direction. This strategy will examine the results of the pilot locations to understand the scope of potential applications related to speeding-involved crashes.



# Distraction



**Focus Area Definition:** Crashes where the driver was distracted by factors either inside or outside the vehicle.

**Focus Area Goal:** Reduce the number of fatal and serious injury crashes that involve distraction by five percent from the previous year through 2029.

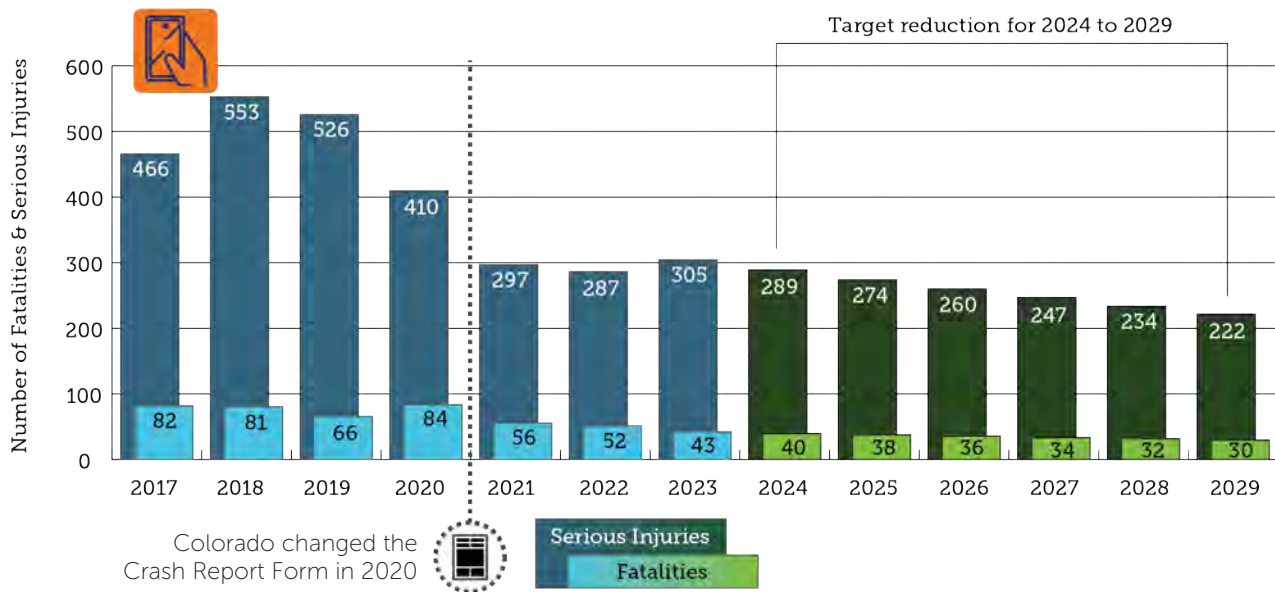
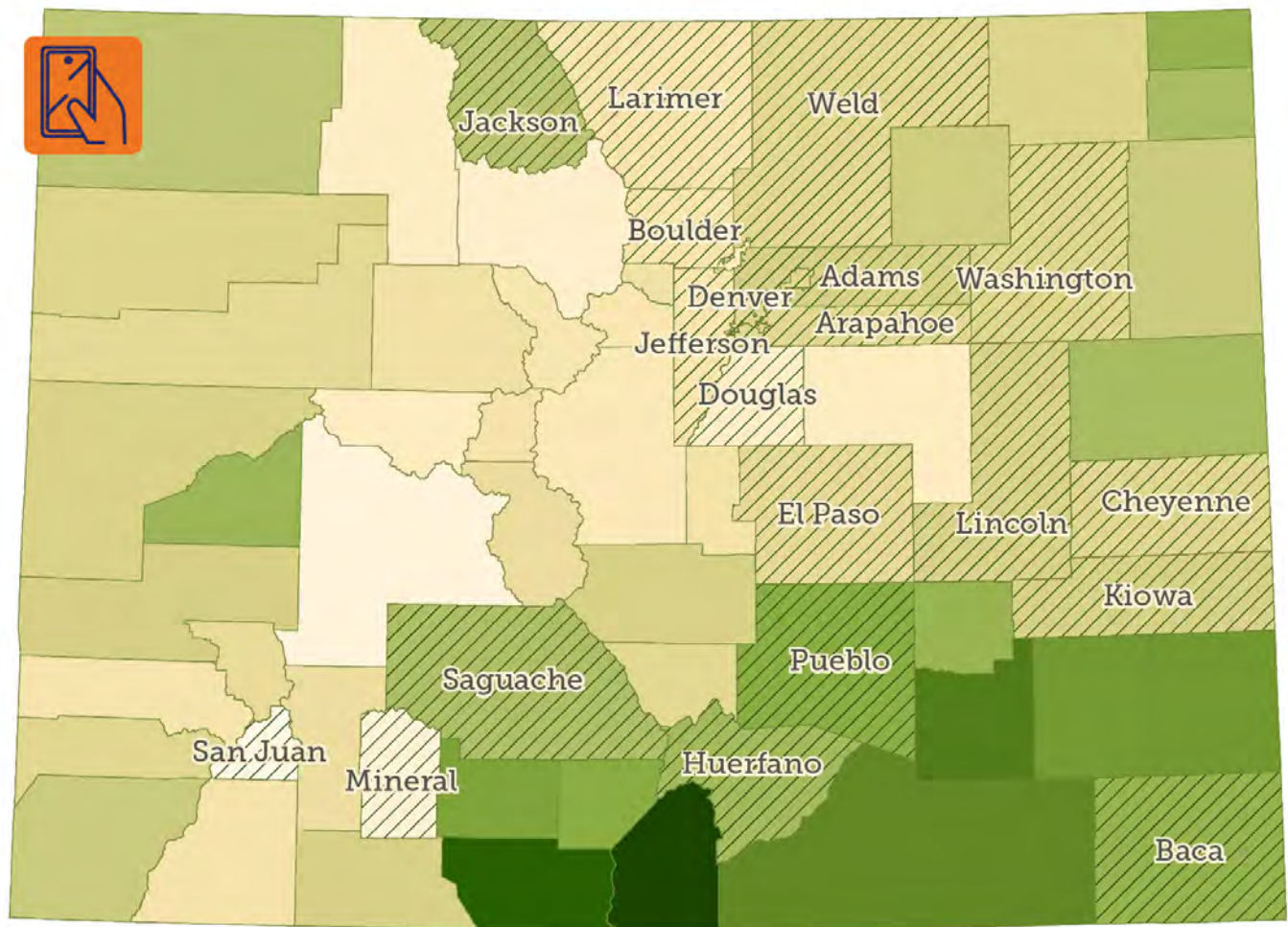


Figure 6-10: Distracted Driving-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Because distraction has to be observed by a responding officer for it to be reported on the crash form, distraction-involved crashes are likely underreported, particularly for crashes resulting in a fatality or serious injury. Figure 6-10 illustrates that crashes involving distraction resulting in a fatality have trended down over the past three years, while serious injuries have remained relatively stable. In 2023, 348 people were killed or seriously injured in distraction-involved crashes.

Figure 6-11 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest distraction-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of distraction-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, rural Eastern Plains and Southwest Colorado counties are represented.

Figure 6-11: Top Counties of Distraction-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | Arapahoe             | Kiowa                   |
| 3    | El Paso              | Cheyenne                |
| 4    | Adams                | Washington              |
| 5    | Weld                 | Jackson                 |
| 6    | Jefferson            | Lincoln                 |
| 7    | Boulder              | Huerfano                |
| 8    | Larimer              | San Juan                |
| 9    | Douglas              | Saguache                |
| 10   | Pueblo               | Baca                    |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Stripping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

While distraction-involved crashes overall are more common in urban areas (75%), the most severe outcomes—fatal and serious injury crashes—occur disproportionately in rural areas. Nearly half (48%) of distraction-involved fatal and serious injury crashes occur in rural settings, even though rural areas account for only 25% of all distraction-involved crashes and 38% of all fatal and serious injury crashes. This indicates that distraction-related crashes are more likely to result in severe outcomes when they occur in rural areas. Figure 6-12 visualizes this disparity by comparing the urban and rural distribution of all crashes, fatal and serious injury crashes, distraction-involved crashes, and distraction-involved severe crashes. The top five distraction-related fatal and serious injury crashes are with a fixed object, rear-end, broadside, rollover or overturn, and with a VRU. These crashes also frequently overlap with other Focus Areas—53% occurring at intersections, 50% occur off-system, 18% involve a younger driver, and 17% involve lane departure.

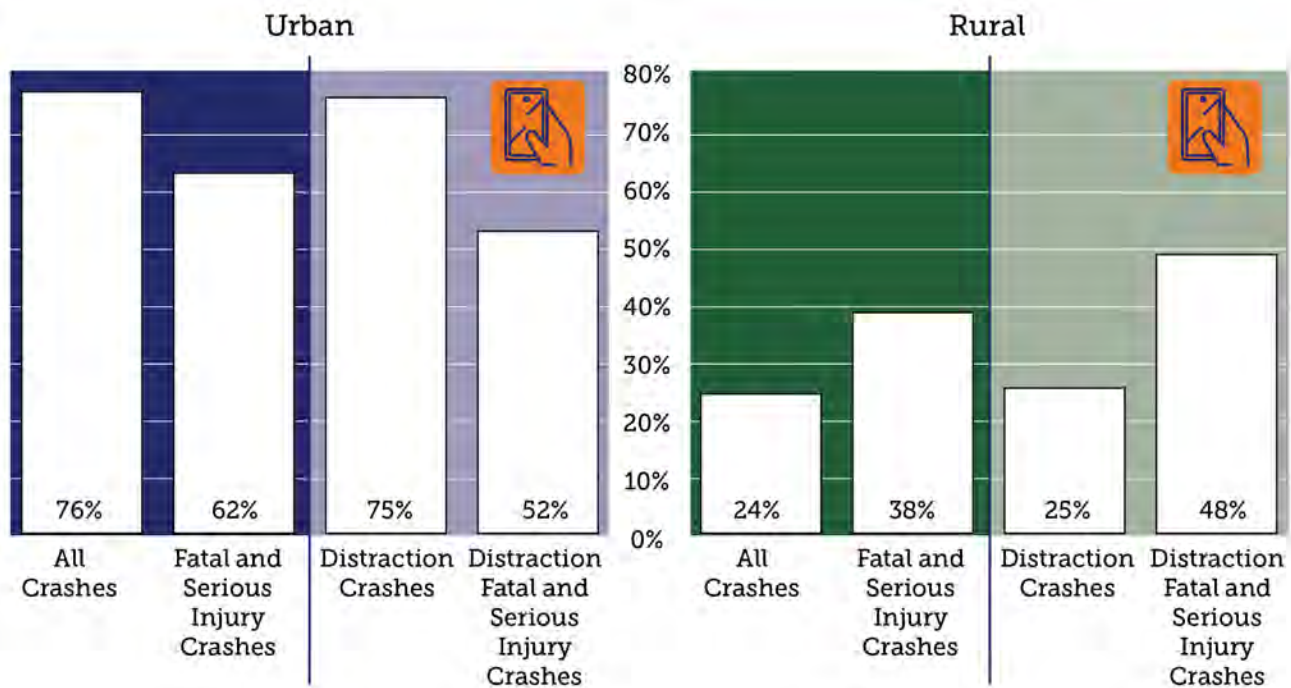


Figure 6-12: Urban and Rural Distribution of Distraction-Related Crashes (2017-2023)

The National Highway Traffic Safety Administration’s (NHTSA) Countermeasures That Work highlights enforcement, legislation, and licensing as countermeasures that are proven to address distraction-involved crashes. Colorado has taken great strides in this direction by passing a state law that prohibits drivers from using mobile electronic devices while driving (hands-free technologies are permitted). The law went into effect on January 1, 2025, and therefore, strategies within this Focus Area will seek to monitor the impact of the law over the next five years.

While the strategies in this plan focus on education related to legislation and promoting safe driver choices around use of mobile phones while driving, there are many other influences that may impact a person’s attentiveness to the driving task. For example, in the 2024 Colorado Driver Behavior Survey when drivers were asked what distractions were present in the last 7 days, 73% of respondents admitted to eating food or drinking a beverage while driving. Other influences, like visitors distracted by Colorado’s beautiful vistas or distractions within the vehicle such as other passengers, are difficult to anticipate and prevent. Collecting more information to better understand the scope

of the problem is also important to this plan, as information gleaned from data will enhance future initiatives to address driver distraction.

## Distraction Strategies

### **SD10: Provide education on hands-free law**

**Continue to educate the public on the hands-free law effective January 1, 2025.**

This strategy aims to promote information regarding the new hands-free law to partner agencies and drivers. Ongoing education for new drivers and licensed drivers alike are important in the first years of the law and beyond to maintain awareness and shift driver behavior.

### **SD11: Enhance data collection**

**Continue to enhance data collected related to distraction-involved crashes.**

Distraction may be an underreported contributing factor to crashes. With the passage of the hands-free law in January 2025, law enforcement agencies will be able to collect more information on citations related to using mobile phones while driving. Enhanced data on the number and locations of citations as well as the number and locations of both primary and secondary crashes related to distraction will support identifying next steps for reducing distraction-related crashes. This data collection will also support evaluating the effectiveness of the hands-free law.





## Chapter 7: Safe People



# Introduction

The Safe People Emphasis Area identifies evidence-based practices to improve roadway safety for Vulnerable Road Users (VRUs) and other road users that are at a high risk of traffic fatalities and serious injuries. A VRU is defined as an individual walking, riding bicycles and rideable toys (e.g., scooters or skateboards), using personal mobility devices (e.g., walkers or wheelchairs), or someone on foot working in work zones.

The Safe People Emphasis Area prioritizes targeted infrastructure upgrades, refining policies for safer transportation systems, expanding multimodal transit options, and promoting educational opportunities that encourage best practices to safeguard VRUs and other at-risk users. This Emphasis Area chapter contains the update to Colorado’s VRU Safety Assessment.

## Focus Areas

The Safe People Emphasis Area identifies seven Focus Areas:

Emphasis Area:



Safe People

Focus Areas:



Motorcyclists



Aging Drivers



Young Drivers



Pedestrians



Bicyclists



Work Zones



First Responders



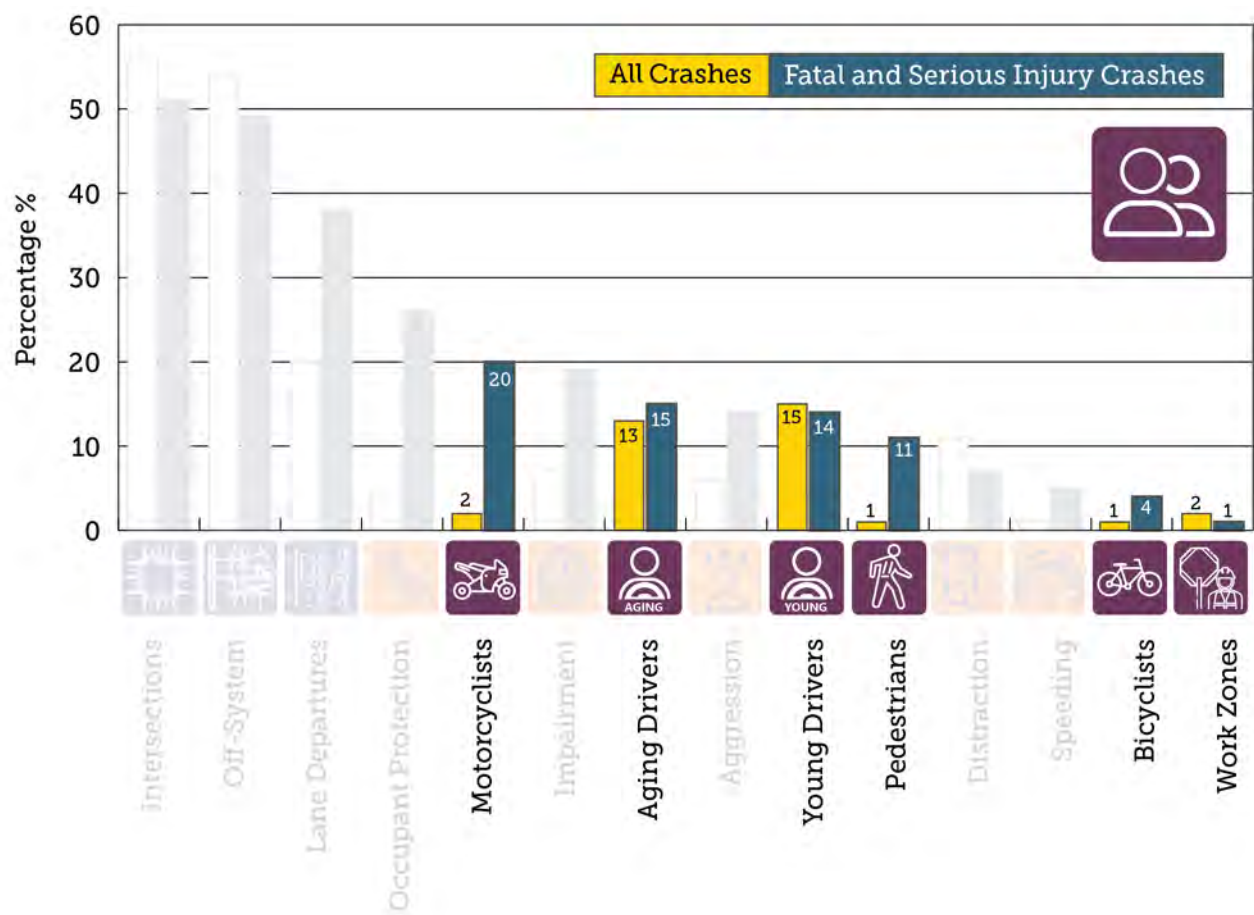


Figure 7-1: Percentage of Total & Fatal/Serious Injury Crashes Involving Focus Areas

The Safe People Emphasis Area focuses on road users most susceptible to fatalities or serious injuries, including motorcyclists, pedestrians, bicyclists, people in work zones, and first responders. This chapter also addresses younger and older drivers, who face a higher risk of serious crashes, as well as those needing personal mobility assistance.

## Motorcyclists



**Focus Area Definition:** Crashes involving motorcyclists.

**Focus Area Goal:** Reduce the number of severe crashes involving motorcyclists by five percent from the previous year through 2029.

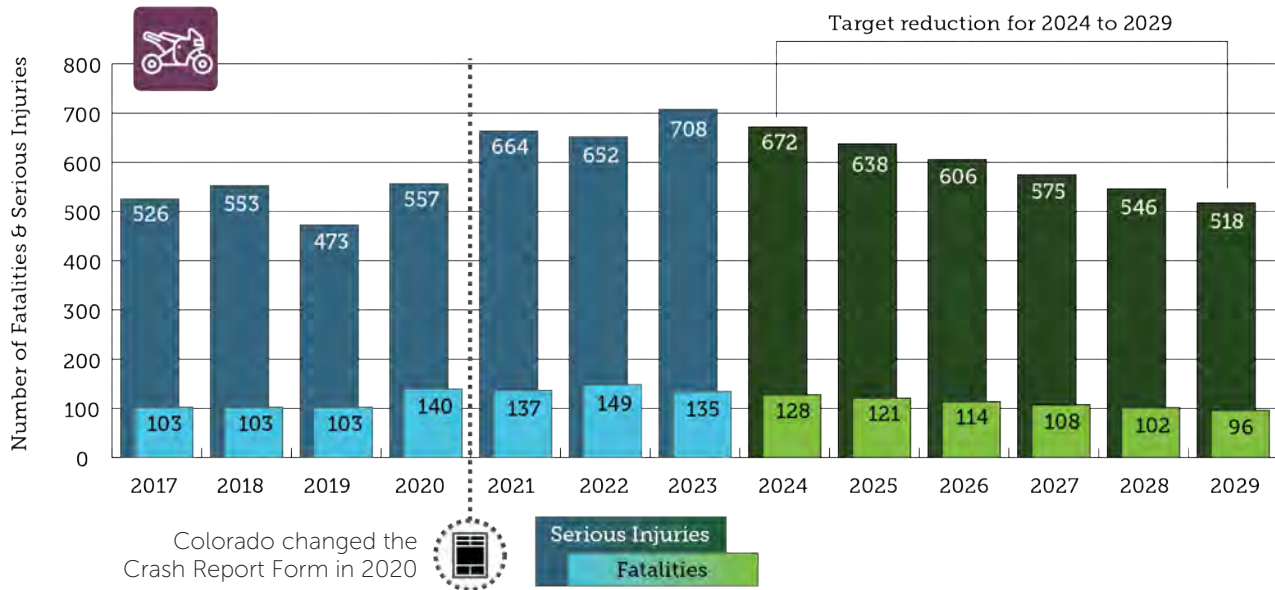


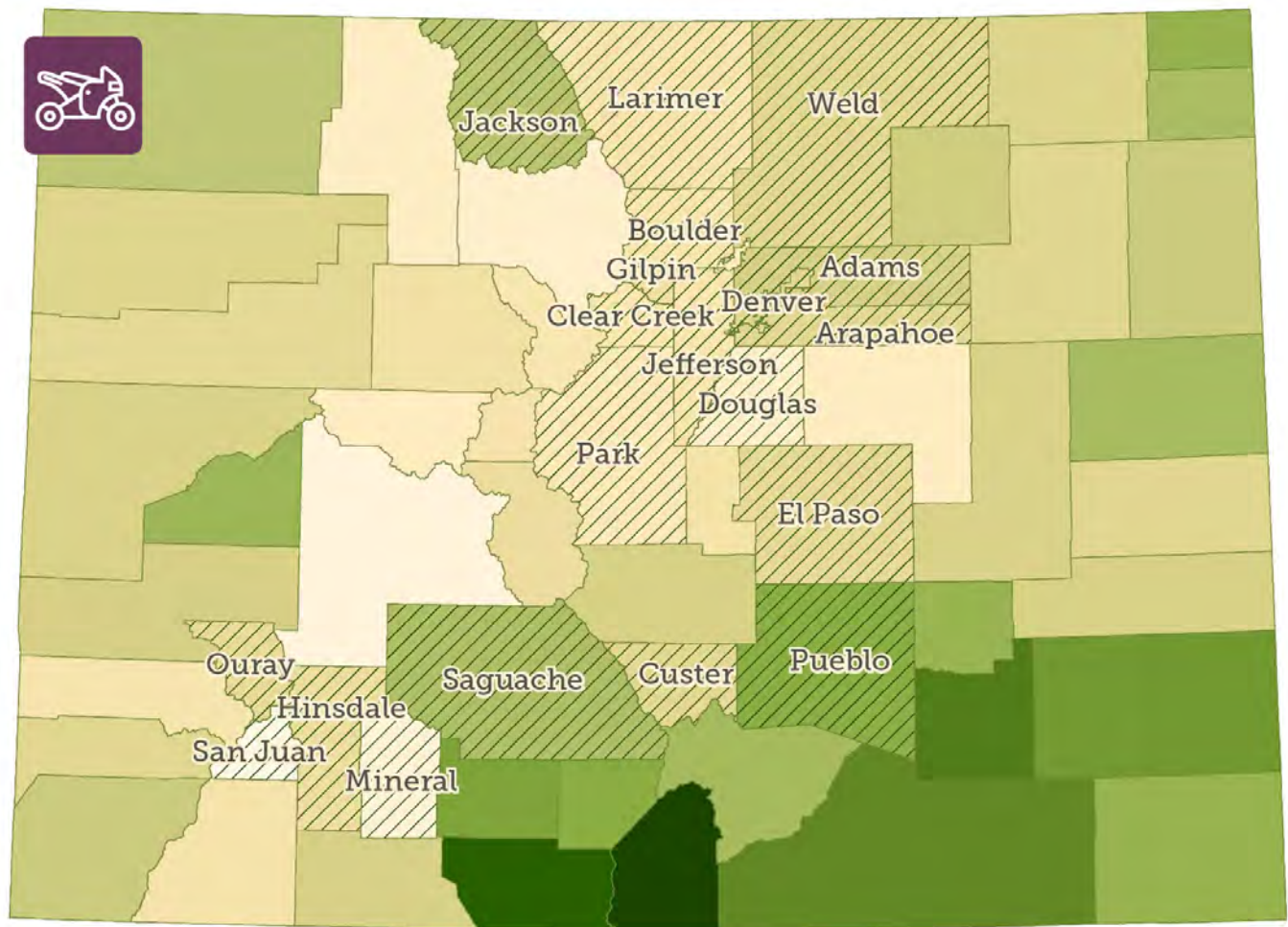
Figure 7-2: Motorcyclist-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Serious injuries among motorcyclists have steadily increased in recent years, despite a slight drop in fatalities in 2023. In 2023, 842 motorcycle fatalities and serious injuries were recorded. Motorcyclists face a disproportionate risk, accounting for 20% of all fatal and serious injury crashes, despite representing only 2% of total crashes and 1% of the total vehicle miles traveled in the state.

Figure 7-3 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest motorcyclist-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of motorcyclist-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, Foothills and Southwest Colorado counties are represented.



Figure 7-3: Top Counties of Motorcyclist-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | San Juan                |
| 2    | El Paso              | Jackson                 |
| 3    | Jefferson            | Hinsdale                |
| 4    | Adams                | Mineral                 |
| 5    | Larimer              | Custer                  |
| 6    | Arapahoe             | Clear Creek             |
| 7    | Boulder              | Gilpin                  |
| 8    | Douglas              | Park                    |
| 9    | Pueblo               | Ouray                   |
| 10   | Weld                 | Saguache                |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



Overturning  
51%



Fixed Object  
39%

Motorcycle crash types vary based on whether the crash was a single-vehicle versus a multi-vehicle crash. When there is a single vehicle motorcycle crash, the most common crash types are overturning (51%) and fixed object crashes (39%) often involving lane departures or loss of control. In contrast, when there are multi-vehicle crashes involving motorcyclists, the predominant crash types are approach turn (28%), broadside crashes (24%), and rear-end (18%), typically occurring on the roadway.



## New Colorado Motorcycle Lane Filtering Law (2024)

Effective Date: August 7, 2024

Review Period: Law expires September 1, 2027, pending safety evaluation.



**What's allowed?** Motorcycles can filter between stopped vehicles when:

- » Traffic is fully stopped (e.g., at a red light)
- » Speed does not exceed 15 mph.
- » Passing occurs within the same lane (not on the shoulder).



**What's not Allowed?** Lane splitting (moving between lanes of moving traffic) remains illegal.

Why? Reduces rear-end crash risks for motorcyclists.

In 2024, a major policy shift occurred as Colorado legalized lane filtering, allowing motorcyclists to pass between stopped vehicles in the same lane, traveling in the same direction. This legislation aims to reduce the numbers of motorcyclist fatalities and serious injuries resulting from rear-end crashes. In the years of 2019-2023, rear-end crashes resulted in 385 motorcyclist fatalities and serious injuries. Over the next few years, data will be closely monitored to assess the policy's effect on motorcyclist safety.

## Motorcyclist Strategies

### **SP1: Expand motorcycle operator safety training**

**Expand motorcycle operator safety training campaigns.**

Promote Motorcycle Operator Safety Training (MOST) courses among motorcycle riders and those who wish to learn how to ride a motorcycle. This strategy enhances and expands statewide MOST for both new and experienced riders and supports Colorado MOST's Mission to "provide a safe motorcycling program that supports motorcycle training and lifelong learning, along with motorcycle safety awareness to achieve reductions in motorcycle crashes and related injuries and fatalities."

### **SP2: Increase public awareness of motorcycle safety**

**Increase public awareness of motorcycle safety for all road users.**

This strategy is focused on increasing the general public's awareness of motorcycle safety around the state. Educating all other road users on changing laws and general motorcyclist safety prevents crashes that involve both motorcyclists and other road users.

### **SP3: Improve motorcycle licensing and endorsement**

**Increase the proportion of active motorcycle riders who are legally endorsed to ride in Colorado.**

This strategy aims to increase the number of riders who have an endorsement and have motorcycle safety training by promoting awareness and availability of motorcycle training and of the requirement for motorcyclists seeking to ride in Colorado to have completed training and acquired an endorsement. Increasing the skills of motorcycle riders reduces severe crashes where inexperience is a contributing factor.

### **SP4: Increase helmet and other personal protective equipment (PPE) use**

**Increase motorcyclist PPE use through education and enforcement.**

Helmets and other protective equipment are key to protecting motorcyclists. Through targeted outreach, this strategy promotes the use of PPE when riding a motorcycle. When motorcyclists properly utilize PPE, the risk of a higher-severity crash is reduced.

## Aging Drivers



**Focus Area Definition:** Crashes involving aging drivers aged 65 and older.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries involving aging drivers by five percent from the previous year through 2029.

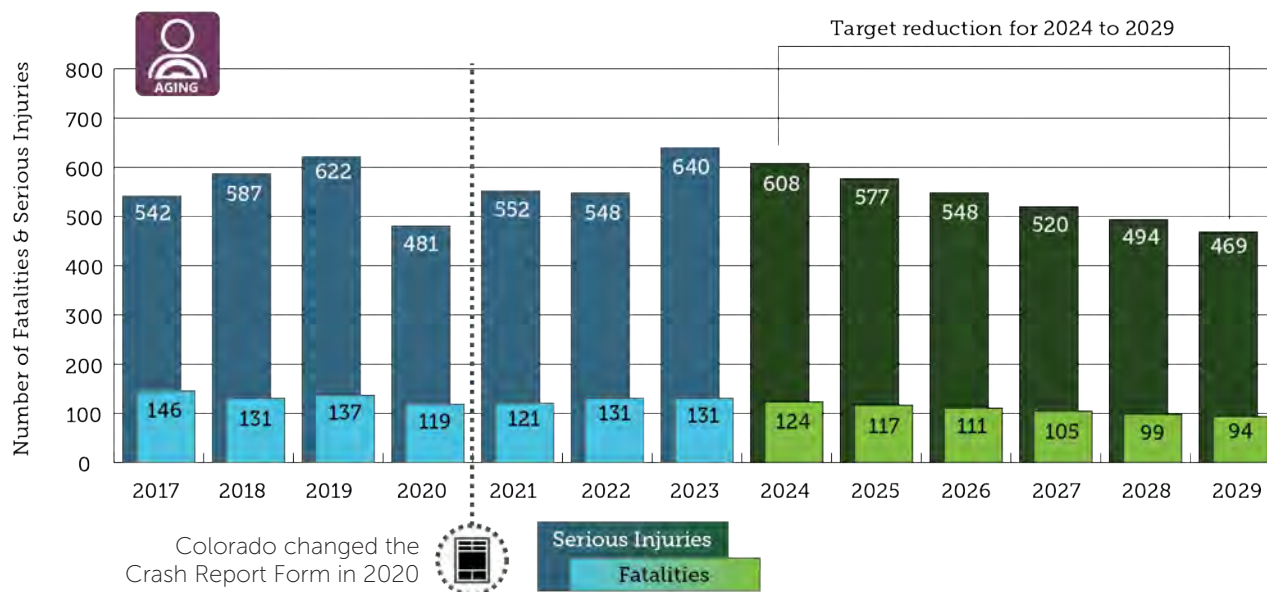


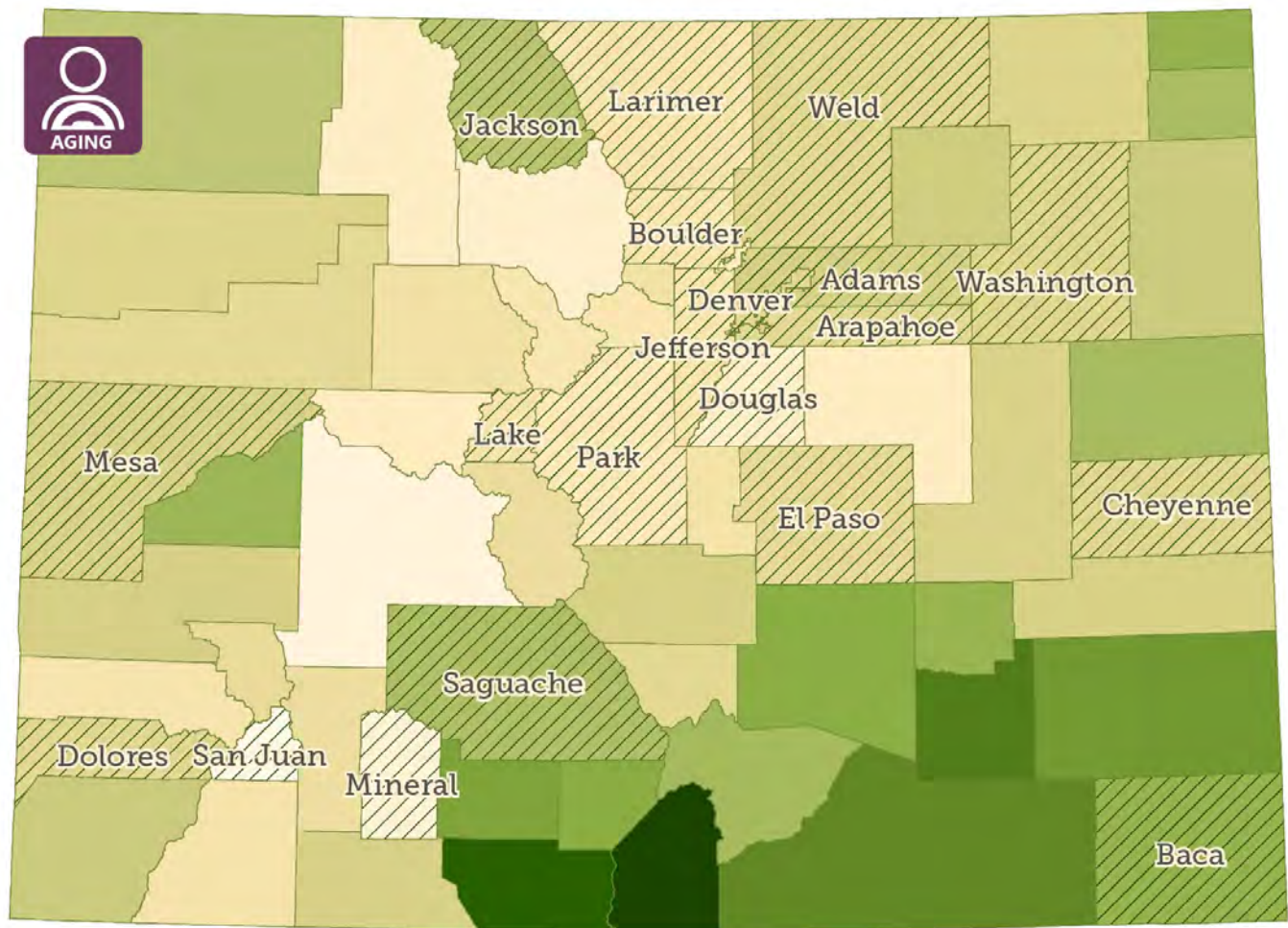
Figure 7-4: Aging Driver-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

As shown in Figure 7-4, fatalities and serious injuries among aging drivers (aged 65 and older) have increased in recent years reaching 771 in 2023. Drivers aged 65 and older make up 16% of the total fatalities and serious injuries, and make up 21% of all licensed drivers. While this does not raise concern for overrepresentation of aging drivers, with the aging population that is described in Chapter 2, it is essential to address safety concerns related to aging drivers to avoid overrepresentation of older drivers in the future.

“As drivers age, their physical and mental abilities, driving behaviors and crash risks all change, though age alone is not a determinate of driving performance. Many features of the current system of roads, traffic signals and controls, laws, licensing practices, and vehicles were not designed to accommodate older drivers.” —NHTSA, 2020



Figure 7-5: Top Counties of Aging Driver-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | San Juan                |
| 2    | El Paso              | Mineral                 |
| 3    | Arapahoe             | Jackson                 |
| 4    | Jefferson            | Washington              |
| 5    | Boulder              | Cheyenne                |
| 6    | Adams                | Baca                    |
| 7    | Larimer              | Dolores                 |
| 8    | Weld                 | Saguache                |
| 9    | Douglas              | Park                    |
| 10   | Mesa                 | Lake                    |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 7-5 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest aging driver-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of aging driver-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, rural Eastern Plains and Southwest Colorado counties are represented.

### Older Drivers and Pedestrians Special Rule

According to the Federal Highway Administration (FHWA), a state qualifies for the Older Drivers and Pedestrians Special Rule “if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age 65 in a state increase during the most recent 2-year period for which data are available.”

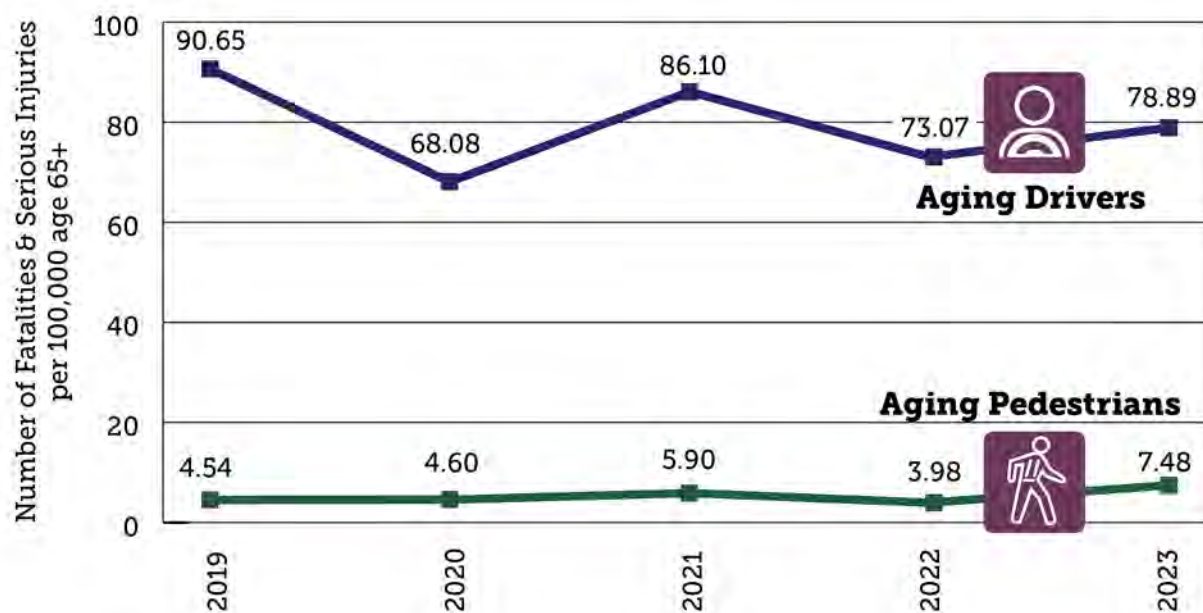


Figure 7-6: Aging Drivers and Pedestrians Fatalities and Serious Injuries Per Capita

Colorado qualifies for the Older Drivers and Pedestrians Special Rule, requiring strategies to address rising fatalities and serious injuries among those 65 and older. Aging driver fatalities have decreased from 2021-2023, while aging pedestrian fatalities have increased from 2021-2023.

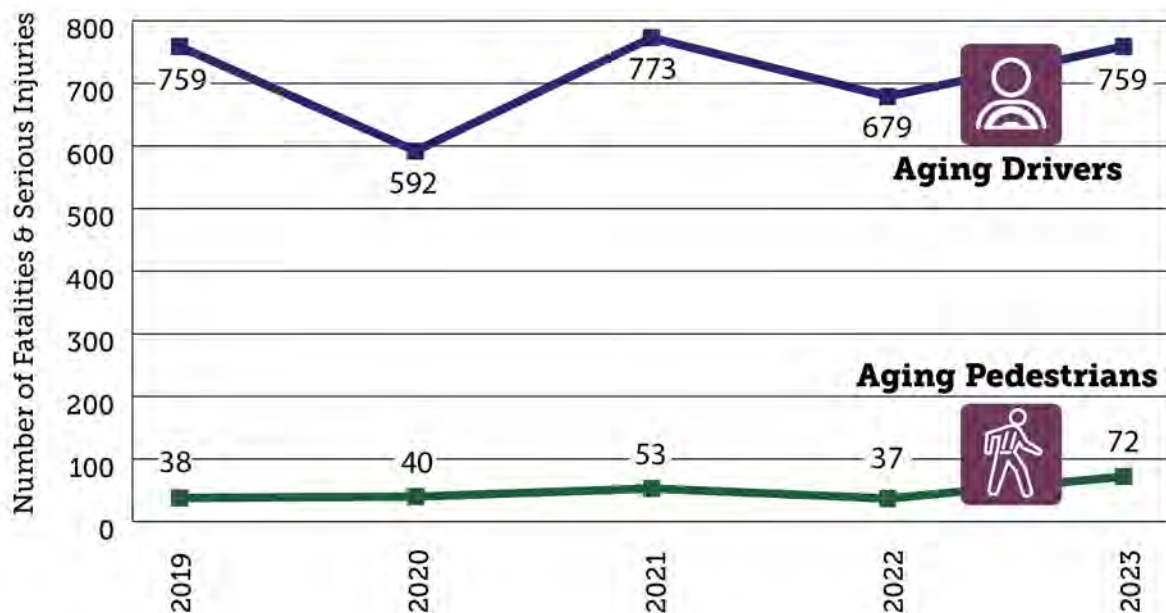


Figure 7-7: Aging Drivers and Pedestrians Fatalities and Serious Injuries

### Aging Driver Strategies

Strategies related to aging drivers and pedestrians are summarized in the following. For additional aging pedestrian strategies, refer to Chapter 8.

#### SP5: Improve visibility of traffic control devices

Enhance road safety by widening striping and markings on high-traffic roads and increasing the visibility of traffic signs to support aging drivers (Aging Drivers Strategy).

Widening striping and increasing the visibility of traffic signs helps aging drivers navigate more easily, compensating for declines in visual acuity and low light contrasts which can be difficult to navigate. These measures enhance confidence, reduce confusion, and prevent crashes.

#### SP6: Improve sight distances

Improve intersection safety by providing proper intersection angles, intersection sight distance, and other design strategies that support aging drivers and pedestrians (Aging Drivers and Pedestrians Strategy).

Improving intersection safety with proper angles, sight distances, and design strategies aids aging drivers and pedestrians to see and react to potential hazards, reducing the likelihood of crashes. These improvements enhance safety by providing clearer visibility and easier navigation, helping drivers and pedestrians make safer decisions.

#### SP7: Expand community-based mobility options

Establish and expand community-based mobility options such as bike-sharing, carpool programs, and on-demand shuttle services in underserved areas to improve access to transportation options for those unable to drive or who choose not to drive (Aging Drivers and Pedestrians Strategy).

Establishing and expanding community-based mobility options, especially in underserved areas, provides essential transportation alternatives for individuals who cannot drive, choose not to drive, or can no longer drive safely, improving their access to jobs, healthcare, and other services. Aging drivers are more likely to cease driving if there are reliable alternatives. These options help reduce reliance on private vehicles, promote environmental sustainability, and improve access to mobility for all members of the community.

#### **SP8: Enhance and expand resources for aging drivers**

**Strengthen programs for aging drivers by increasing the awareness, use, effectiveness, and quality of existing resources. (Aging Drivers Strategy).**

This strategy aims to enhance available resources for aging drivers and their families to evaluate and determine if a person is able to continue driving safely. Promote existing programs and educational opportunities such as individualized driver assessments, written guides for aging drivers and their families, and existing regulations on license testing and renewals for older drivers.



### **Colorado Resources for Aging Drivers**

#### **Stay Safe, Stay Independent**



Colorado offers programs to help aging drivers assess their skills and stay safe on the road:

#### **Fitness-Drive Evaluation**

Occupational therapy assessment for vision, reaction time, and adaptive driving solutions.

#### **Older Driver Safety Guide**

Self-assessment tools, safety tips, and legal info to help drivers make informed decisions.

#### **Drive Smart Colorado**

Workshop and resources to support safe driving habits.

**Learn more: [drivesmartcolorado.com](https://drivesmartcolorado.com)**



## Young Drivers



**Focus Area Definition:** Crashes involving young drivers (aged 15 to 20).

**Focus Area Goal:** Reduce the number of severe crashes involving young drivers by five percent from the previous year through 2029.

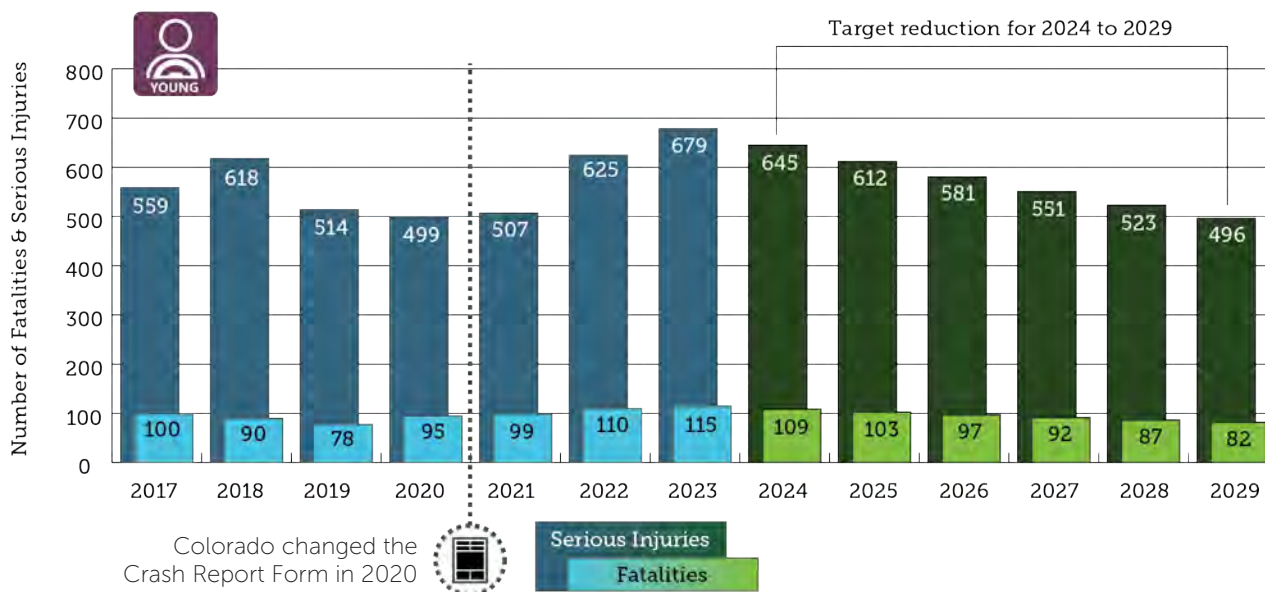


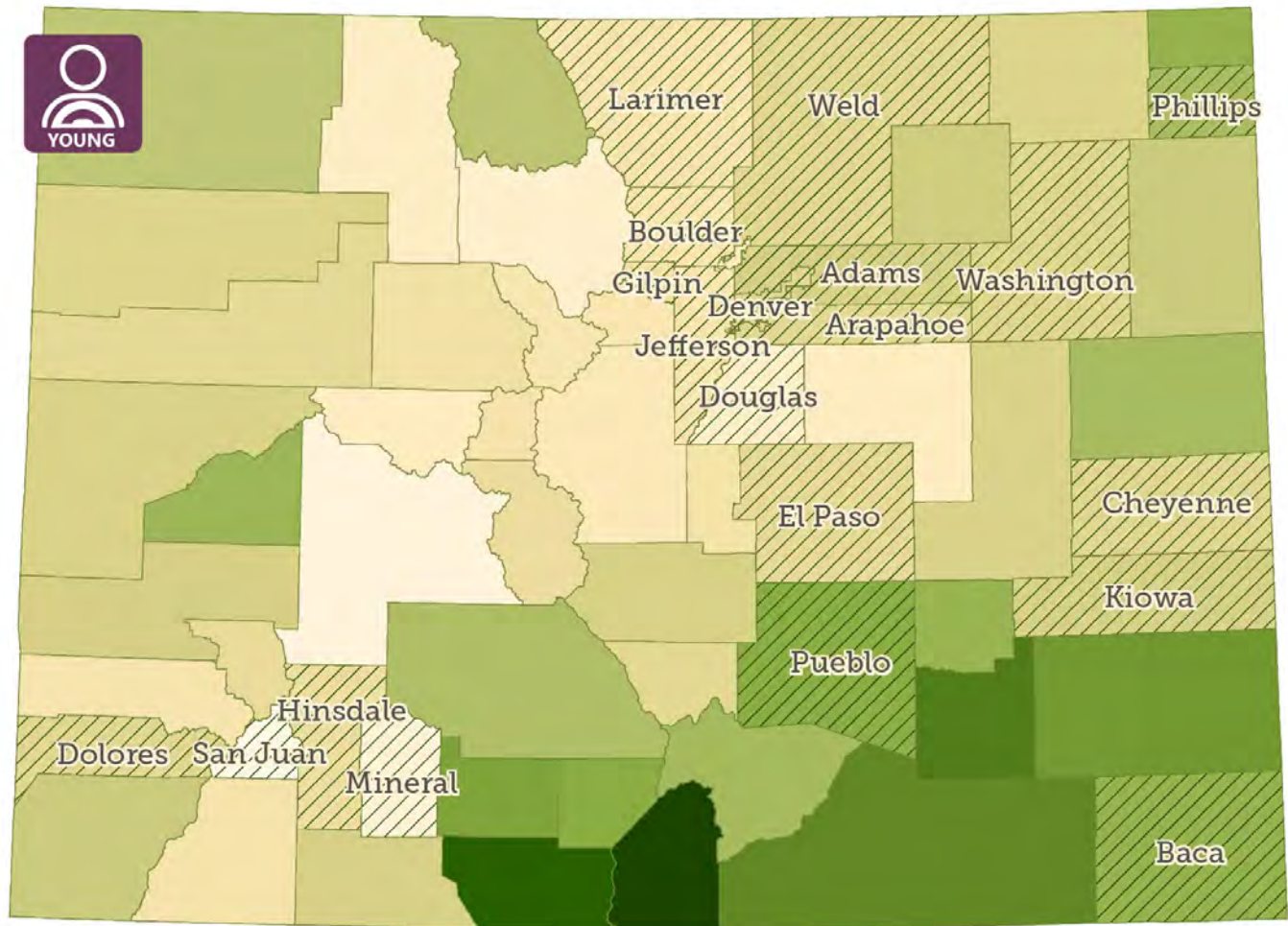
Figure 7-8: Young Driver-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

As shown in Figure 7-8, fatalities and serious injuries among young drivers have risen steadily since 2020, reaching 794 in 2023.

Young drivers, involved in 14% of severe crashes and 15% of all crashes statewide, face higher risks due to inexperience and limited awareness of driving hazards. Stakeholders have identified limited access to quality driver's education, especially in rural areas, as a key concern.

Overall, 40% of fatalities and serious injuries occur on rural roads. However, rural roads account for 47% of young driver-involved fatalities and serious injuries, indicating that young driver-involved fatalities are disproportionately high along rural roads. Young drivers aged 15-20 also tend to experience a higher proportion of overturning crashes compared to all drivers. Twenty-one percent (21%) of all young driver-involved fatalities and serious injuries result from overturning crashes compared to 11% for the overall population.

Figure 7-9: Top Counties of Young Driver-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | El Paso              | Cheyenne                |
| 3    | Adams                | Kiowa                   |
| 4    | Arapahoe             | Hinsdale                |
| 5    | Weld                 | Baca                    |
| 6    | Jefferson            | San Juan                |
| 7    | Boulder              | Washington              |
| 8    | Larimer              | Gilpin                  |
| 9    | Douglas              | Phillips                |
| 10   | Pueblo               | Dolores                 |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 7-9 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest young driver-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of young driver-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, rural Eastern Plains and Southwest Colorado counties are represented.

## Young Driver Strategies

### **SP9: Expand access to driver's education**

**Expand access to driver's education programs, particularly in rural areas, through partnerships with schools, online platforms, and community organizations.**

Limited access to driver's education, especially in Colorado's rural areas, makes it difficult for young drivers to receive proper training. This strategy aims to increase both availability and affordability of driver's education for all young drivers around the state. Expanding driver's education through partnerships with schools, online platforms, and community organizations increases opportunities for more young drivers in all locations around the state to gain the skills needed for safer driving.

### **SP10: Improve quality of driver's education**

**Improve the quality of driver's education programs, including incorporating defensive driving, distracted driving awareness, and active transportation considerations into the curriculum.**

Enhancing driver's education is of critical importance to reduce young driver crashes and improve overall roadway safety. By incorporating defensive driving and distracted driving awareness into the curriculum, this strategy addresses behaviors that disproportionately contribute to young driver-involved crashes. Additionally, increasing new drivers' awareness of active transportation safety may reduce crashes between young drivers and VRUs.



## VRU Safety Assessment

Table 7-1: VRU Fatalities and Serious Injuries Compared to Total Fatalities and Serious Injuries

|                                       | 2019  | 2020  | 2021  | 2022  | 2023  | Percent Change (2019-2023) |
|---------------------------------------|-------|-------|-------|-------|-------|----------------------------|
| VRU Fatalities and Serious Injuries   | 540   | 468   | 595   | 630   | 833   | +54%                       |
| Total Fatalities and Serious injuries | 3,797 | 3,518 | 4,359 | 4,440 | 4,874 | +28%                       |
| VRU % of Total                        | 14.2% | 13.3% | 13.6% | 14.2% | 17.1% | +2.9%                      |

Vulnerable Road Users (VRUs) as a percentage of all fatalities and serious injuries has hovered around 14% over much of the past five years. Unfortunately, 2023 saw a sharp increase in the number of VRU fatalities and serious injuries indicating that Colorado’s efforts to reduce VRU crashes has yet to result in a consistent trend reversal.

The stakeholder outreach efforts described in Chapter 3 SHSP Stakeholder Engagement provided many opportunities to consult with communities, subject matter experts and other entities on VRU-related topics. VRU safety was a recurring theme as the word cloud in Chapter 3 illustrates.

In 2023, 39 priority VRU “hot spot” locations were identified with recommended actions for each location. With the short time-frame since these locations were identified, the recommended actions were not able to be implemented. These priority locations were analyzed with updated crash data and a percent change of fatalities and serious injuries from the 2022 data collected in the VRU Assessment was identified. This can be found for pedestrians in Table 7-2 and for bicyclists in Table 7-3.

Some of the locations experienced an increase in fatalities and serious injuries while others experienced a decrease. Because the recommended actions have not yet been implemented, and the most recent safety trends indicate that VRU crashes continue to occur at these locations, it is recommended that the priority locations from the 2023 Vulnerable Road User Safety Assessment continue as part of the SHSP.



Table 7-2: Priority Locations Rolling Average of Fatalities and Serious Injuries for Pedestrians

| Project Name                                                                   | 2017-2021<br>5-Year Average | 2019-2023<br>5-Year Average | Change in<br>5-Year Average |
|--------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|
| E. Colfax Avenue (40C) - N. Yosemite Street to N. Peoria Street                | 10                          | 9                           | -1                          |
| Downtown Denver Activity Center                                                | 2.6                         | 2.6                         | 0                           |
| S. Nevada Avenue (115A) - E. Navajo Street to E. Mill Street                   | 3                           | 2.8                         | -0.2                        |
| E. Colfax Avenue (40C) - N. Clarkson Street to N. High Street                  | 2                           | 2                           | 0                           |
| Main Street (287C) - Longs Peak Avenue to 17th Avenue                          | 2.4                         | 4                           | 1.6                         |
| E. Evans Avenue - S. Jackson Street to S. Syracuse Way                         | 2.4                         | 2                           | -0.4                        |
| S. Federal Boulevard (88A) - W. Iowa Avenue to W. Mississippi Avenue           | 2.6                         | 2.4                         | -0.2                        |
| S. Townsend Avenue (550B) - Odelle Road to N. 7th Street                       | 1                           | 1.2                         | 0.2                         |
| Academy Boulevard - Hancock Expressway to E. Fountain Boulevard                | 1                           | 1.2                         | 0.2                         |
| N. Speer Boulevard - W. 11th Avenue to E. Colfax Avenue                        | 0.6                         | 1.6                         | 1                           |
| N. Federal Boulevard (88A) and W. Howard Place / W. 14th Avenue                | 1.6                         | 0.8                         | -0.8                        |
| Sheridan Boulevard (95A) - W. Dakota Avenue to W. 1st Avenue                   | 1.2                         | 1.6                         | 0.4                         |
| E. 6th Avenue (30A) - N. Potomac Street to N. Sable Boulevard                  | 1.2                         | 0.8                         | -0.4                        |
| Canyon Boulevard (7B) - 9th Street to 19th Street                              | 0.8                         | 0.2                         | -0.6                        |
| 72nd Avenue - Meade Street to N. Irving Street                                 | 1.2                         | 0.4                         | -0.8                        |
| S Parker road (83A) - E. Dartmouth Avenue to I-225                             | 1.2                         | 1.4                         | 0.2                         |
| Broadway Street (93A) - 15th Street to Canyon Boulevard                        | 0.6                         | 0.4                         | -0.2                        |
| Wadsworth Boulevard (121A) - W. 19th Avenue to W. 26th Avenue                  | 0.8                         | 1                           | 0.2                         |
| S. Federal Boulevard (88A) - W. Warren Avenue to 200' North of W. Evans Avenue | 1.2                         | 0.6                         | -0.6                        |
| S. Wadsworth Boulevard - W. Florida Avenue to W. Mississippi Avenue            | 1.2                         | 0.6                         | -0.6                        |
| E. Main Street (160A) - N. Beech Street to S. Veach Street                     | 1                           | 0.8                         | -0.2                        |
| Academy Boulevard and Austin Bluffs Parkway                                    | 1                           | 1                           | 0                           |
| Carefree Circle and N. Academy Boulevard                                       | 1                           | 0.8                         | -0.2                        |
| 28th Street (36B) - Spruce Street to Valmont Road                              | 0.8                         | 1                           | 0.2                         |
| Wadsworth Boulevard (121A) - W. 14th Avenue to E. Colfax Avenue                | 0.2                         | 0.4                         | 0.2                         |

|                                                                        |     |     |      |
|------------------------------------------------------------------------|-----|-----|------|
| Main Avenue (550B) - E. Park Avenue to E. 21st Avenue                  | 0.6 | 0.2 | -0.4 |
| 30th Street - Arapahoe Avenue to Walnut Street                         | 0.2 | 0   | -0.2 |
| Folsom Street - University Heights Avenue to Dorm Parking Lot Entrance | 0.2 | 0.2 | 0    |
| Colorado Boulevard (2A) and E. Colfax Avenue                           | 0.8 | 0.4 | -0.4 |
| Diagonal Highway (119B) - Foothills Parkway to Independence Road       | 0   | 0   | 0    |
| N. Lincoln Street - E. Colfax Avenue to E. 18th Avenue                 | 0   | 0   | 0    |
| Broadway Street - Violet Avenue to Yarmouth Avenue                     | 0   | 0   | 0    |
| 9th Avenue - Francis Street to Bross Street                            | 0   | 0   | 0    |
| E. Fountain Boulevard (24H) and S. Murray Boulevard                    | 0.6 | 0.4 | -0.2 |
| Havana Street and E. 16th Avenue                                       | 0   | 0   | 0    |
| Arapahoe Avenue (7C) - Foothills Parkway to 48th Street                | 0   | 0.2 | 0.2  |
| North Avenue (6B) and N. 1st Street                                    | 0   | 0   | 0    |
| W. Morrison Road (8A) and S. Estes Street / S. Garrison Street         | 0   | 0   | 0    |
| Sheridan Boulevard (95A) and W. 10th Avenue                            | 0   | 0.2 | 0.2  |

Table 7-3: Priority Locations Rolling Average of Fatalities and Serious Injuries for Bicyclists

| Project Name                                                         | 2017-2021<br>5-Year Average | 2019-2023<br>5-Year Average | Change in<br>5-Year Average |
|----------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|
| E. Colfax Avenue (40C) - N. Yosemite Street to N. Peoria Street      | 0.2                         | 0.6                         | 0.4                         |
| Downtown Denver Activity Center                                      | 0.4                         | 0.4                         | 0                           |
| S. Nevada Avenue (115A) - E. Navajo Street to E. Mill Street         | 0.4                         | 0.4                         | 0                           |
| E. Colfax Avenue (40C) - N. Clarkson Street to N. High Street        | 1.4                         | 0.8                         | -0.6                        |
| Main Street (287C) - Longs Peak Avenue to 17th Avenue                | 0.8                         | 1                           | 0.2                         |
| E. Evans Avenue - S. Jackson Street to S. Syracuse Way               | 0.6                         | 0.6                         | 0                           |
| S. Federal Boulevard (88A) - W. Iowa Avenue to W. Mississippi Avenue | 0.2                         | 0.2                         | 0                           |
| S. Townsend Avenue (550B) - Odelle Road to N. 7th Street             | 0.8                         | 0.6                         | -0.2                        |
| Academy Boulevard - Hancock Expressway to E. Fountain Boulevard      | 0.4                         | 0.6                         | 0.2                         |
| N. Speer Boulevard - W. 11th Avenue to E. Colfax Avenue              | 1                           | 1                           | 0                           |
| N. Federal Boulevard (88A) and W. Howard Place / W. 14th Avenue      | 0                           | 0.4                         | 0.4                         |
| Sheridan Boulevard (95A) - W. Dakota Avenue to W. 1st Avenue         | 0.2                         | 0                           | -0.2                        |

|                                                                                |     |     |      |
|--------------------------------------------------------------------------------|-----|-----|------|
| E. 6th Avenue (30A) - N. Potomac Street to N. Sable Boulevard                  | 0.2 | 0.2 | 0    |
| Canyon Boulevard (7B) - 9th Street to 19th Street                              | 0.6 | 0.8 | 0.2  |
| 72nd Avenue - Meade Street to N. Irving Street                                 | 0.2 | 0.2 | 0    |
| S Parker road (83A) - E. Dartmouth Avenue to I-225                             | 0   | 0   | 0    |
| Broadway Street (93A) - 15th Street to Canyon Boulevard                        | 0.6 | 0.4 | -0.2 |
| Wadsworth Boulevard (121A) - W. 19th Avenue to W. 26th Avenue                  | 0.4 | 0   | -0.4 |
| S. Federal Boulevard (88A) - W. Warren Avenue to 200' North of W. Evans Avenue | 0   | 0.2 | 0.2  |
| S. Wadsworth Boulevard - W. Florida Avenue to W. Mississippi Avenue            | 0   | 0.2 | 0.2  |
| E. Main Street (160A) - N. Beech Street to S. Veach Street                     | 0   | 0   | 0    |
| Academy Boulevard and Austin Bluffs Parkway                                    | 0   | 0   | 0    |
| Carefree Circle and N. Academy Boulevard                                       | 0   | 0   | 0    |
| 28th Street (36B) - Spruce Street to Valmont Road                              | 0   | 0.4 | 0.4  |
| Wadsworth Boulevard (121A) - W. 14th Avenue to E. Colfax Avenue                | 0.6 | 0.4 | -0.2 |
| Main Avenue (550B) - E. Park Avenue to E. 21st Avenue                          | 0.2 | 0.2 | 0    |
| 30th Street - Arapahoe Avenue to Walnut Street                                 | 0.6 | 0.6 | 0    |
| Folsom Street - University Heights Avenue to Dorm Parking Lot Entrance         | 0.6 | 0.8 | 0.2  |
| Colorado Boulevard (2A) and E. Colfax Avenue                                   | 0   | 0   | 0    |
| Diagonal Highway (119B) - Foothills Parkway to Independence Road               | 0.6 | 0.4 | -0.2 |
| N. Lincoln Street - E. Colfax Avenue to E. 18th Avenue                         | 0.6 | 0.2 | -0.4 |
| Broadway Street - Violet Avenue to Yarmouth Avenue                             | 0.6 | 0.2 | -0.4 |
| 9th Avenue - Francis Street to Bross Street                                    | 0.6 | 0.6 | 0    |
| E. Fountain Boulevard (24H) and S. Murray Boulevard                            | 0   | 0   | 0    |
| Havana Street and E. 16th Avenue                                               | 0.6 | 0.2 | -0.4 |
| Arapahoe Avenue (7C) - Foothills Parkway to 48th Street                        | 0.4 | 0   | -0.4 |
| North Avenue (6B) and N. 1st Street                                            | 0.4 | 0   | -0.4 |
| W. Morrison Road (8A) and S. Estes Street / S. Garrison Street                 | 0.4 | 0.2 | -0.2 |
| Sheridan Boulevard (95A) and W. 10th Avenue                                    | 0.4 | 0.2 | -0.2 |

The program of strategies to reduce the safety risks for VRUs is summarized within the following Pedestrians and Bicyclists Focus Area summaries. Specific VRU projects and actions are a part of the Action Planning Process described in Chapter 10 Implementation.

# Pedestrians



**Focus Area Definition:** Crashes that involve pedestrians being struck by vehicles.  
**Focus Area Goal:** Reduce the number of pedestrian fatalities and serious injuries by five percent from the previous year through 2029.

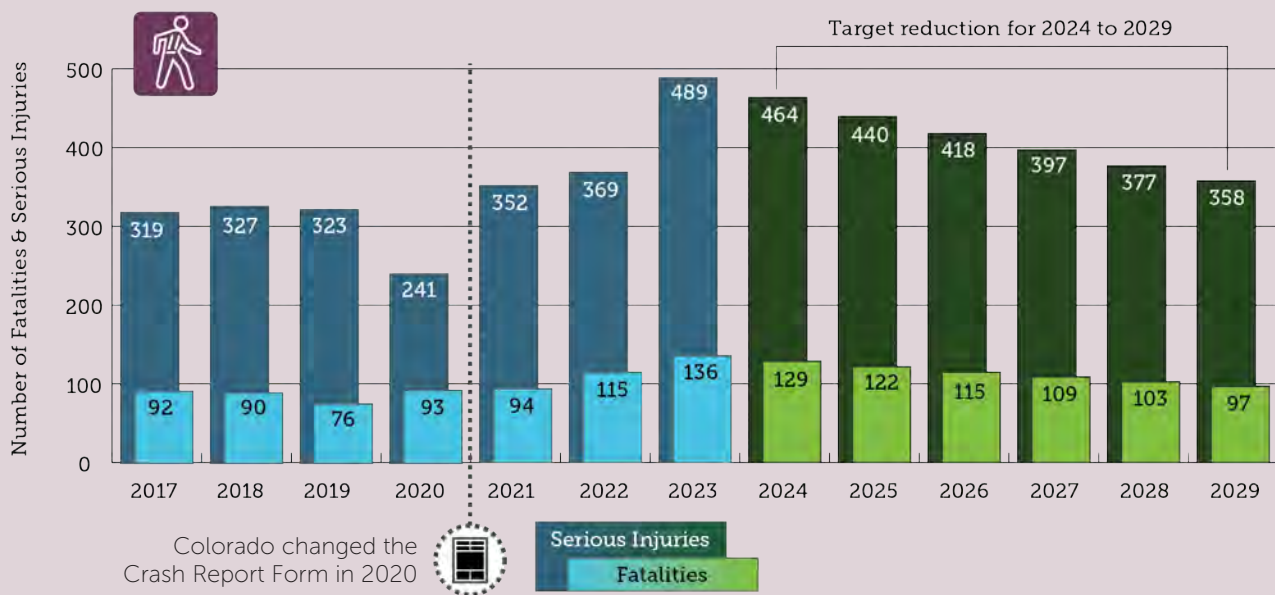
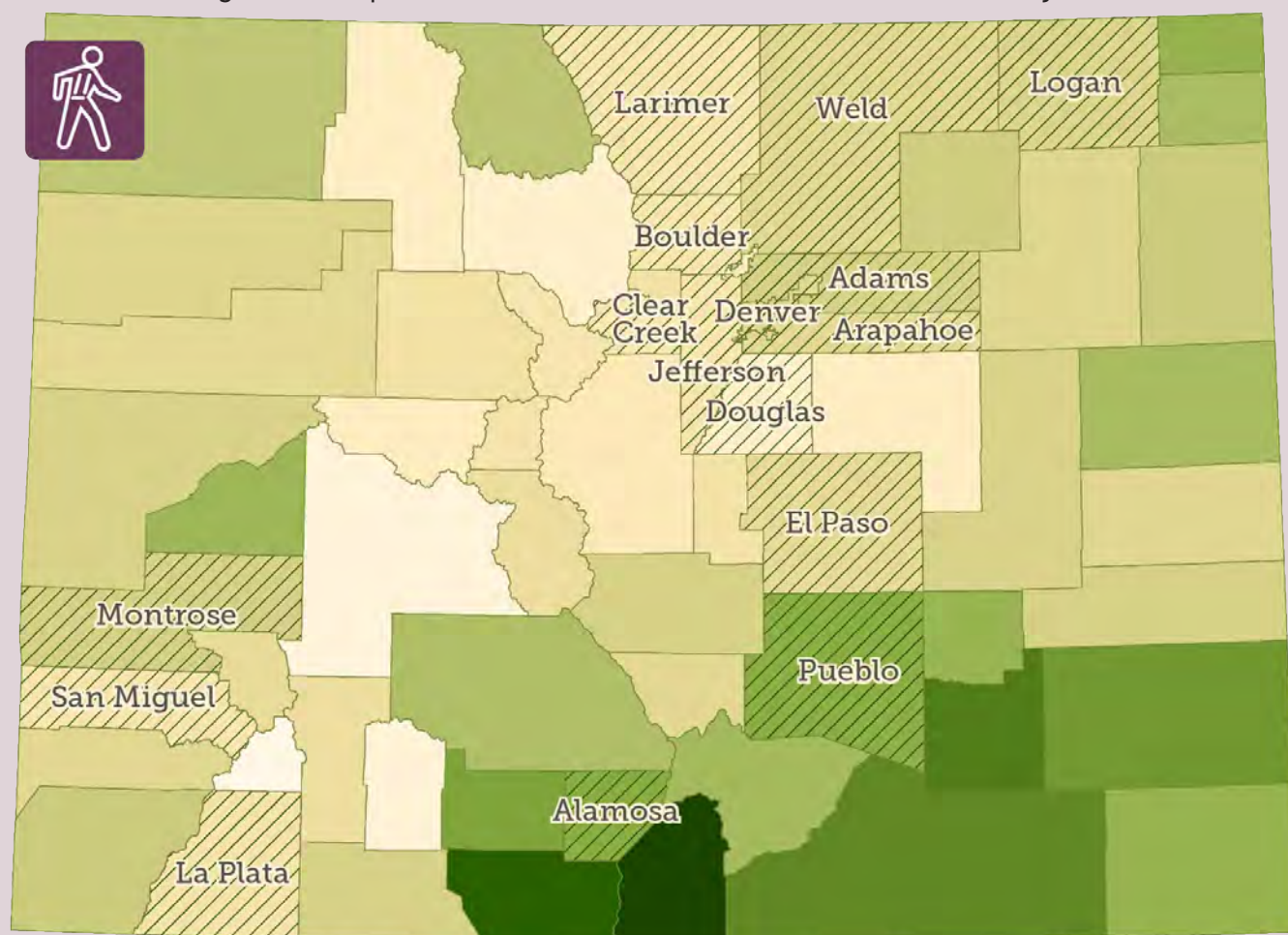


Figure 7-10: Pedestrian-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Pedestrian fatalities and serious injuries have steadily increased, reaching 625 fatalities and serious injuries in 2023 (Figure 7-10). Although pedestrians are involved in just 1% of crashes, they account for 11% (Figure 7-1) of fatal and serious injury crashes, underscoring the severity of these incidents. Reducing pedestrian crashes will directly lower overall fatalities and serious injuries statewide.



Figure 7-11: Top Counties of Pedestrian-Involved Fatalities and Serious Injuries



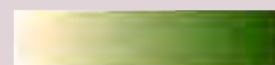
| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver*              | Clear Creek             |
| 2    | Arapahoe*            | Denver*                 |
| 3    | Adams*               | Pueblo*                 |
| 4    | El Paso              | Alamosa                 |
| 5    | Jefferson            | Adams*                  |
| 6    | Boulder              | San Miguel              |
| 7    | Pueblo*              | Logan                   |
| 8    | Larimer              | Montrose                |
| 9    | Weld                 | Arapahoe*               |
| 10   | Douglas              | La Plata                |

\* represented in both top and per capita categories

#### Map Legend

Weighted TDI Score

Low



High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 7-11 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest pedestrian fatalities and serious injuries and the highest rates per capita. Counties with the highest number of pedestrian fatalities and serious injuries are the counties with more urban areas, mostly the counties surrounding Denver. Two counties of note are Pueblo and Alamosa as these are counties with higher TDI scores and higher levels of pedestrian fatalities and serious injuries.

About 50% of severe pedestrian crashes occur at intersections, and nearly 90% occur in urban areas, highlighting, in particular, that urban intersections are among the most high-risk locations. Working-aged adults (aged 21-64) account for the highest rate of fatalities and serious injuries per capita. There is insufficient pedestrian exposure data to truly identify the ages of pedestrians at the highest risk. As a result, one strategy is to build more complete data around pedestrian exposure.

Designers, pedestrians, and drivers all influence roadway safety, and a shared responsibility is essential to reducing crashes. According to crash reports, over 60% of fatal pedestrian crashes and 47% of serious injury pedestrian crashes involved instances where pedestrian facilities (e.g., crosswalks) were not used as designed. This shows the need for education for both drivers and pedestrians on the use of pedestrian facilities, as well as the need for improved pedestrian facilities that are easy and safe to use.

Pedestrian safety is influenced by many factors, including infrastructure design, vehicle speed, and access to safe crossings—elements that are especially important in urban areas and locations where a larger percentage of residents utilize active transportation modes. Targeted holistic improvements can support pedestrian safety including infrastructure improvements, education campaigns for both drivers and pedestrians, and policies that promote access to transportation options other than driving.

Because pedestrians are more vulnerable in crashes and face a higher likelihood of severe injury or death, minimizing pedestrian-vehicle conflicts—especially at intersections—is critical. Investing in safer crossings, traffic-calming measures, and community-driven safety programs can help reduce risks. Ensuring that safety improvements reflect the needs of target communities will help support effective safety solutions.

In 2009, Colorado adopted a new bicycle and pedestrian policy, Policy Directive 1602. This Policy Directive states “The needs of bicyclists and pedestrians shall be included in the planning, design, and operation of transportation facilities, as a matter of routine. A decision to not accommodate them shall be documented based on the exemption criteria in the procedural directive.” Moving forward, it is key that Colorado continues to address bicycles and pedestrians in all transportation facilities as a priority and not a second thought.

## Pedestrian Strategies

Strategies to improve pedestrian safety are combined with strategies to improve bicyclist safety. Refer to the following Bicyclists Focus Area for more details on pedestrian and bicyclist strategies.

## Bicyclists



**Focus Area Definition:** Crashes that involve bicyclists being struck by vehicles.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries that involve bicyclists by five percent from the previous year through 2029.

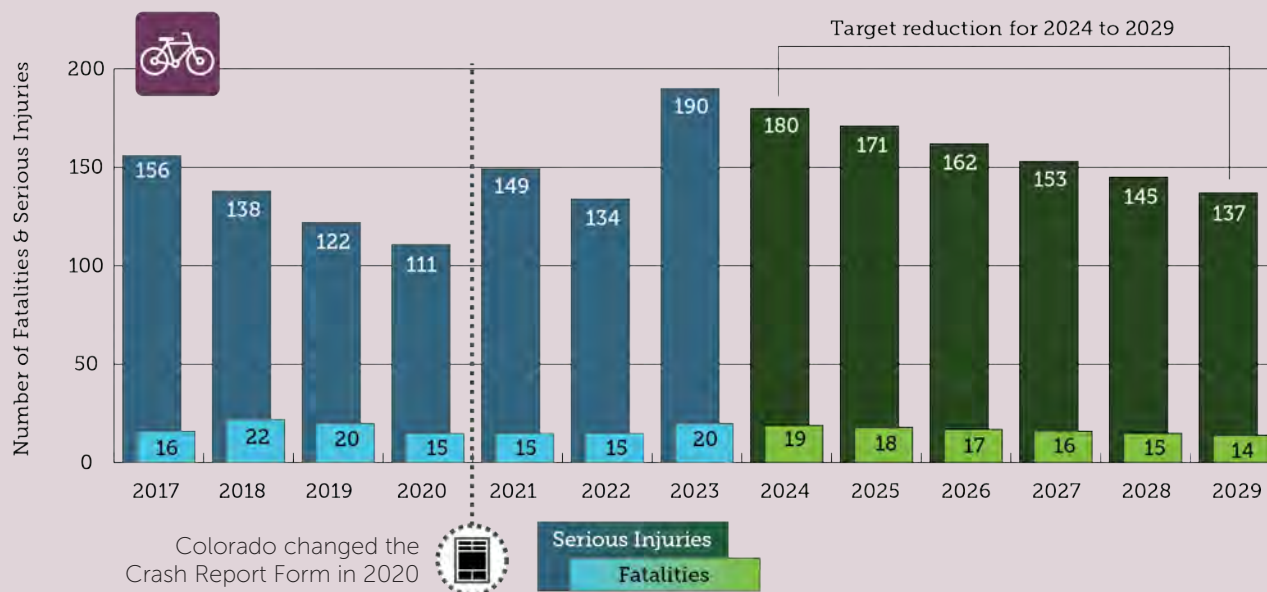


Figure 7-12: Bicyclist-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Figure 7-12 shows a sharp rise in bicyclist fatalities and serious injuries in 2023, totaling 210.

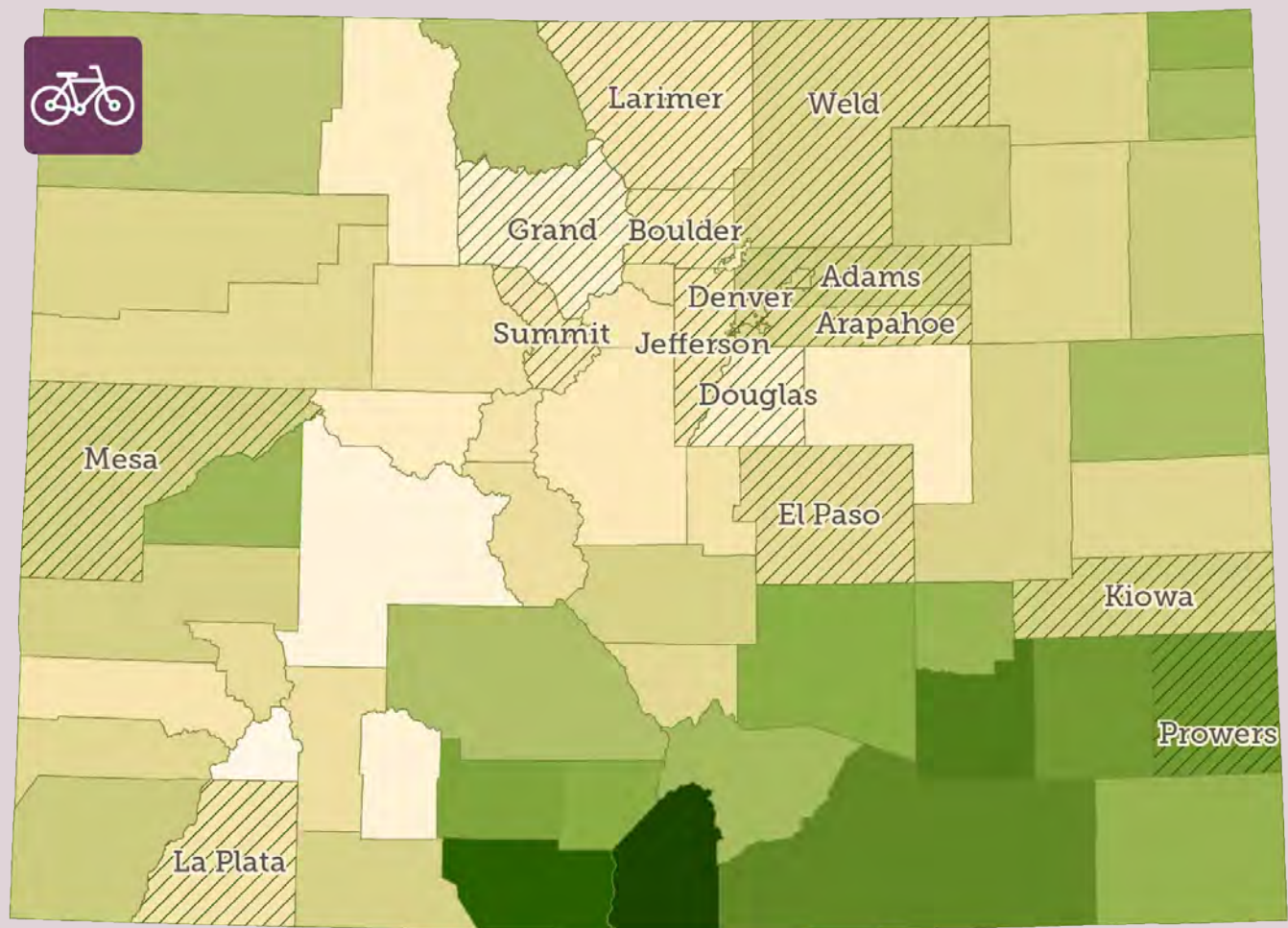
Figure 7-13 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest bicyclist fatalities and serious injuries and the highest rates per capita. Similar to the pedestrian crashes, the highest number of bicyclist fatalities and serious injuries are the counties with more urban areas, mostly the counties surrounding Denver. Prowers County is the only identified county with a high TDI score and high levels of bicyclist fatalities and serious injuries.

Intersections pose the highest risk for bicyclists, accounting for 59% of serious injury crashes and 67% of fatal crashes involving bicyclists. Nearly 90% of fatal and serious injury bicyclist crashes occur in urban areas, making them a priority for safety improvements.

Similar to pedestrians, bicyclists are more vulnerable in crashes and face a higher likelihood of severe injury or death; minimizing bicycle-vehicle conflicts—especially at intersections—is critical. Investing in improved bicyclist infrastructure, traffic-calming measures, separated bike lanes, and community-driven safety programs can help reduce risks. Additionally, ensuring that outreach efforts engage and reflect the needs of all communities, especially those that experience high rates of fatalities and serious injuries, will support more effective safety solutions.



Figure 7-13: Top Counties of Bicyclist-Involved Fatalities and Serious Injuries



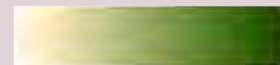
| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver*              | Kiowa                   |
| 2    | Boulder*             | Boulder*                |
| 3    | Jefferson*           | Denver*                 |
| 4    | Larimer*             | Larimer*                |
| 5    | El Paso              | Summit                  |
| 6    | Arapahoe             | Grand                   |
| 7    | Adams                | Prowers                 |
| 8    | Mesa*                | Mesa*                   |
| 9    | Douglas              | La Plata                |
| 10   | Weld                 | Jefferson*              |

\* represented in both top and per capita categories

#### Map Legend

Weighted TDI Score

Low



High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



## Pedestrian and Bicyclist Strategies

Bicyclist safety strategies focus on infrastructure upgrades and education, aligning with pedestrian safety efforts due to shared challenges.

### **SP11: Analyze pedestrian and bicycle crash types**

**Apply the Pedestrian and Bicyclist Crash Analysis Tool (PBCAT) to enhance understanding of VRU crashes.**

This strategy applies the Pedestrian and Bicyclist Crash Analysis Tool (PBCAT) to better understand contributing factors and movements for VRU crashes and more accurately match a countermeasure to the safety issue. In addition, this strategy examines existing crash reporting data elements to identify opportunities to enhance the collection of data to better align with PBCAT entry fields.

### **SP12: Improve VRU exposure data**

**Improve exposure data to better understand areas at higher risk of VRU crashes.**

This strategy aims to improve the data around VRU exposure in order to identify high-risk locations for VRUs by collecting VRU counts in advance of Road Safety Audits (RSA) and Corridor Studies to assess the level of risk for these roadways. This strategy also aims to implement a large-scale active transportation count program or purchase “big data” VRU exposure and origin-destination data.

### **SP13: Conduct Road Safety Audits (RSAs)**

**Conduct VRU-specific and/or expanded Road Safety Audits.**

Establish an RSA process for the State of Colorado. For VRU specific RSAs, VRU exposure data will be collected prior to performing RSAs. RSAs should also include PBCAT or similar analysis of VRU crashes and an analysis of human and behavioral factors in safety improvement recommendations.

### **SP14: Perform regional pedestrian/bicyclist studies**

**Perform studies at the local and regional levels that focus on pedestrian and bicyclist safety.**

Perform studies at the regional level, such as those created by CDOT’s Regions 1 and 4, or by regional organizations such as Transportation Planning Regions or Metropolitan Planning Organizations, and support local agencies in conducting pedestrian and bicyclist safety studies. This strategy creates a deeper understanding of the state of pedestrian and bicyclist safety through a regional lens, contributing to statewide active transportation programming.

### **SP15: Analyze VRU crash demographic data**

**Continue to utilize demographic data to identify community-level risk factors that may be contributing to VRU crashes.**

Perform demographic analysis of VRU crashes, and identify communities which are disproportionately impacted by these types of crashes. Relevant data regarding community-level data sources can help identify additional risk factors that may be contributing to high rates of VRU crashes in the specified communities. When considering VRU safety infrastructure improvement projects, these additional factors may be crucial for reducing crashes and relevant perspectives should be considered throughout all stages of project development.

#### **SP16: Conduct VRU before-and-after studies**

**Continue to evaluate implemented safety projects and identify the most successful project types.**

This strategy aims to continue to evaluate VRU safety projects using before-and-after studies and offer support to local agencies to perform their own before-and-after studies. The overall goal of this strategy is to compile a statewide database to build a Colorado-specific list of countermeasures proven to work.

#### **SP17: Educate traffic safety professionals on VRU best practices**

**Work to continually educate traffic safety professionals on new VRU concepts and design strategies.**

Bring VRU safety educational opportunities to Colorado such as CDOT and the Federal Highway Administration (FHWA) trainings on bicycle and pedestrian design, Complete Streets, and the Safe System Approach (SSA). Ensure jurisdictional personnel are provided with adequate time and support to attend and invite consultants to participate.

#### **SP18: Inventory VRU infrastructure**

**Update and maintain the existing inventory of active transportation facilities on the state highway system and owned or maintained by local jurisdictions.**

This strategy aims to build an inventory of active transportation facilities on the state highway system. This includes surveying local jurisdictions to determine which ones maintain active transportation facility inventories and assisting jurisdictions who are not already maintaining an inventory of active transportation facilities in creating one.

#### **SP19: Expand VRU data sources**

**Expand data sources in the VRU safety assessment to include all crash types to enable a proactive approach to VRU safety.**

In the 2023 Colorado VRU Safety Assessment, only VRU fatal and serious injury crashes were analyzed, which led to a much smaller dataset for identifying top contributing factors and priority locations and limiting other data analyses. This strategy aims to focus future VRU data analysis efforts on all VRU crash types enabling a more complete understanding of VRU safety around the state.

#### **SP20: Evaluate VRU priority locations**

**Work to continually identify and address priority locations for VRU safety.**

This strategy focuses on continuing to identify priority locations for VRU safety and address the safety needs. This includes monitoring and analyzing the safety impacts of completed projects with VRU infrastructure improvements. This also includes utilizing FHWA's Proven Safety Countermeasures to address location-specific needs based on the PBCAT analysis, exposure data, land use, trip generators, and near-miss data.

## Work Zones



**Focus Area Definition:** Crashes occurring in work zones.

**Focus Area Goal:** Reduce the number of severe crashes occurring in work zones by five percent from the previous year through 2029.

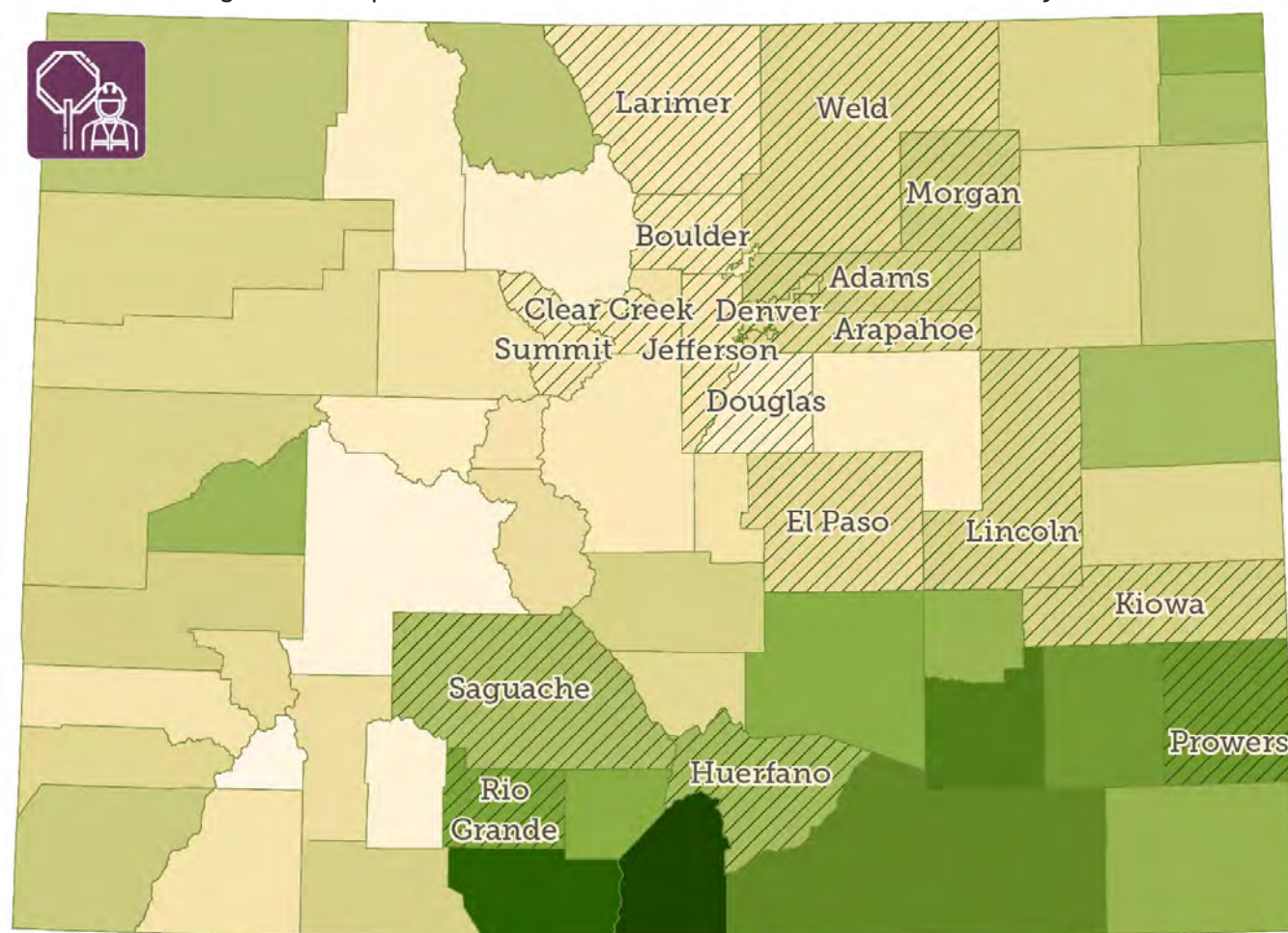


Figure 7-14: Work zone-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Work Zones are a area with limited available data, as Colorado's crash report form only began tracking work zone related crashes in 2021. Since that time, fatalities and serious injuries in work zones have steadily increased, reaching 79 in 2023, up from 65 in 2022 (Figure 7-14).

Figure 7-15 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest work zone-involved fatalities and serious injuries and the highest rates per capita. The highest number of work zone-involved fatalities and serious injuries tend to be urban counties.

Figure 7-15: Top Counties of Work Zone-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Larimer*             | Kiowa                   |
| 2    | El Paso              | Clear Creek             |
| 3    | Douglas              | Lincoln                 |
| 4    | Adams                | Saguache                |
| 5    | Denver               | Huerfano                |
| 6    | Weld                 | Morgan                  |
| 7    | Jefferson            | Summit*                 |
| 8    | Arapahoe             | Prowers                 |
| 9    | Boulder              | Rio Grande              |
| 10   | Summit*              | Larimer*                |

\* represented in both top and per capita categories

#### MAP LEGEND

Weighted TDI Score

Low High

Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



Although work zone crashes account for fewer fatalities and serious injuries than other Focus Areas, their rapid increase is concerning. The primary causes remain unclear, but speed discrepancies and irregular traffic patterns are major contributors. A deeper understanding of these factors is crucial to addressing, mitigating, and reducing work zone crashes.

## Work Zone Strategies

### **SP21: Create work zone safety committee**

**Form a work zone safety committee to analyze available data, share lessons learned, and improve best practices.**

As work zone crashes become a growing traffic safety issue in Colorado and with the addition of this data point on the DR3447 Crash Form, this strategy aims to identify key contributing factors and develop effective solutions.



## First Responders



**Focus Area Definition:** Crashes involving first responders.

**Focus Area Goal:** Reduce the number of severe crashes that involve first responders by five percent from the previous year through 2029.

First responders are individuals that respond in a professional capacity to a public safety emergency. Examples include but are not limited to law enforcement, firefighters, and emergency medical technicians. Due to the dangerous environment where these individuals often work, such as high-speed roadways, this Focus Area promotes keeping first responders safe as they support others on the road. In 2023, Colorado expanded HB23-1123 Slow Down Move Over law to better protect individuals and vehicles on the roadside. This law requires all motor vehicle drivers to move to one lane apart from a stationary motor vehicle when the stationary motor vehicle has its hazard lights activated. If a driver cannot move to be one lane apart from the stationary motor vehicle, the driver must slow down and drive at a safe speed.<sup>9</sup>

The Colorado Standing Committee on First Responder Safety leads statewide efforts to enhance first responder protection through joint Traffic Incident Management training, improved quick clearance techniques, and public education on safe driving near roadside incidents. The strategies in this Focus Area continue supporting the committee's initiatives and collaboration with first responders to create safer roadways to ensure the safest possible roadway environment for all emergency personnel. For information regarding Traffic Incident Management, see Chapter 9 Post-Crash Care.

### First Responder Strategies

#### **SP22: Provide resources and support for first responders**

**Continue providing resources and technical support to strengthen the Colorado Standing Committee on First Responder's efforts in improving first responder safety.**

The Colorado Standing Committee on First Responder Safety is responsible for the development and execution of the Traffic Incident Management Strategic Plan For Colorado, which was most recently updated in 2022. To avoid duplication of efforts, the SHSP supports the activities of the Colorado Standing Committee on First Responder Safety and the priorities outlined in the Traffic Incident Management Strategic Plan For Colorado.

<sup>9</sup> Move Over or Slow Down Stationary Vehicle, HB23-1123 (2023). <https://leg.colorado.gov/bills/hb23-1123>





## Chapter 8: Safe Roads

## Introduction

The Safe Roads Emphasis Area acknowledges that safety is proactive and that humans make mistakes. It focuses on designing and improving infrastructure to anticipate and reduce the impact of human errors, preventing fatalities and serious injuries.

The primary objective of the Safe Roads Emphasis Area is to identify and implement targeted roadway infrastructure improvements to reduce the occurrence of fatal and serious injury crashes on Colorado's roadways. Fundamental to this objective is the understanding that responsibility is shared, and local agency contributions are essential.



## Focus Areas

The Safe Roads Emphasis Area identifies four Focus Areas:

Emphasis Area:



Safe Roads

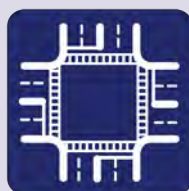
Focus Areas:



Lane Departures



Off-System



Intersections



Speed Management



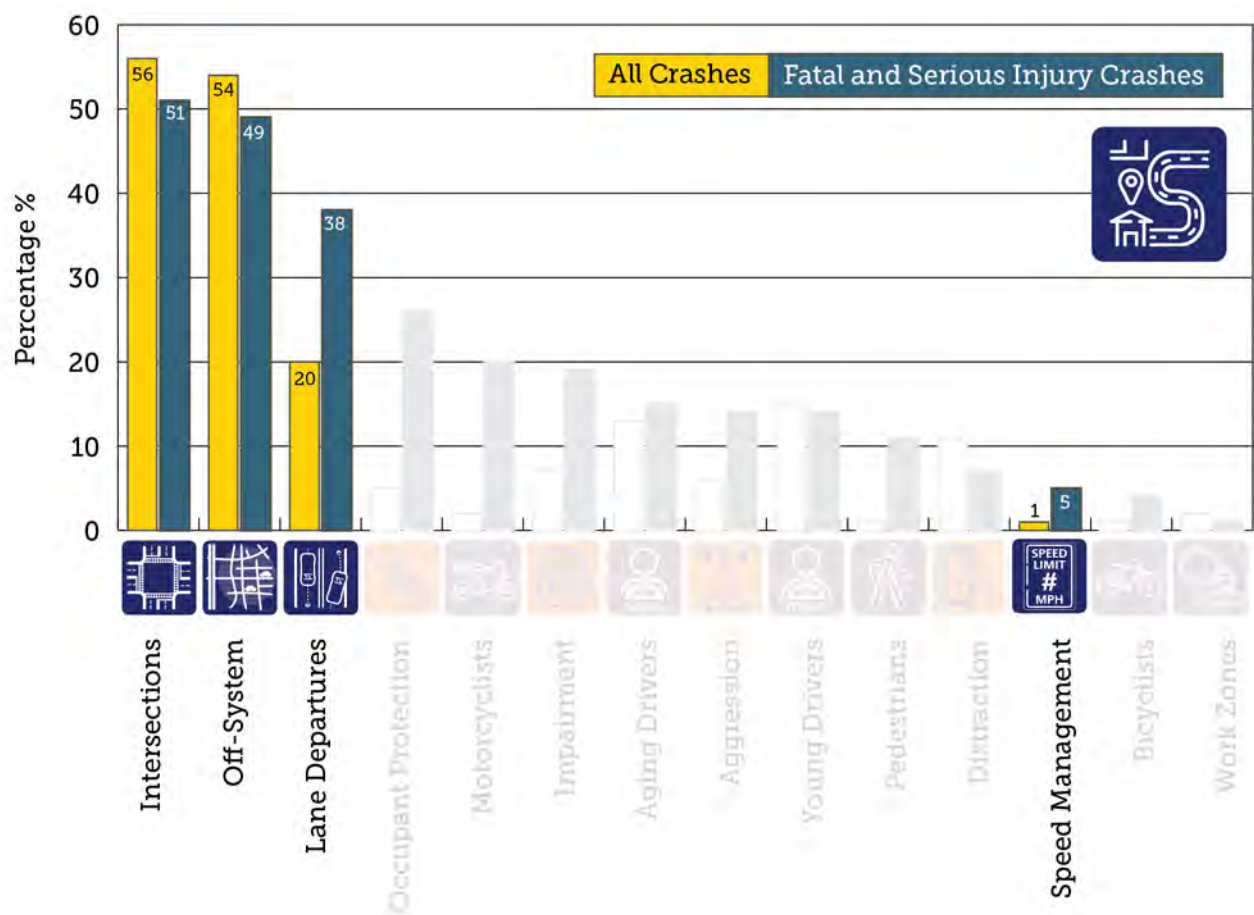


Figure 8-1: Percentage of Total & Fatal/Serious Injury Crashes Involving Focus Areas

The Safe Roads Emphasis Area focuses on different roadway environments where severe crashes occur. The Focus Areas within this Emphasis Area have high potential for reducing or eliminating future severe crashes and include intersections, lane departures, off-system roads, and speed management.

Additionally, the strategies identified in the Safe Roads Emphasis Area could all apply to High Risk Rural Roads (HRRR) depending on the safety needs of the given location.

## Lane Departures



**Focus Area Definition:** Crashes that occur due to a driver leaving their lane including run-off-road, fixed object, head-on, rollover, and sideswipe crash types.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries caused by lane departure crashes by five percent from the previous year through 2029.

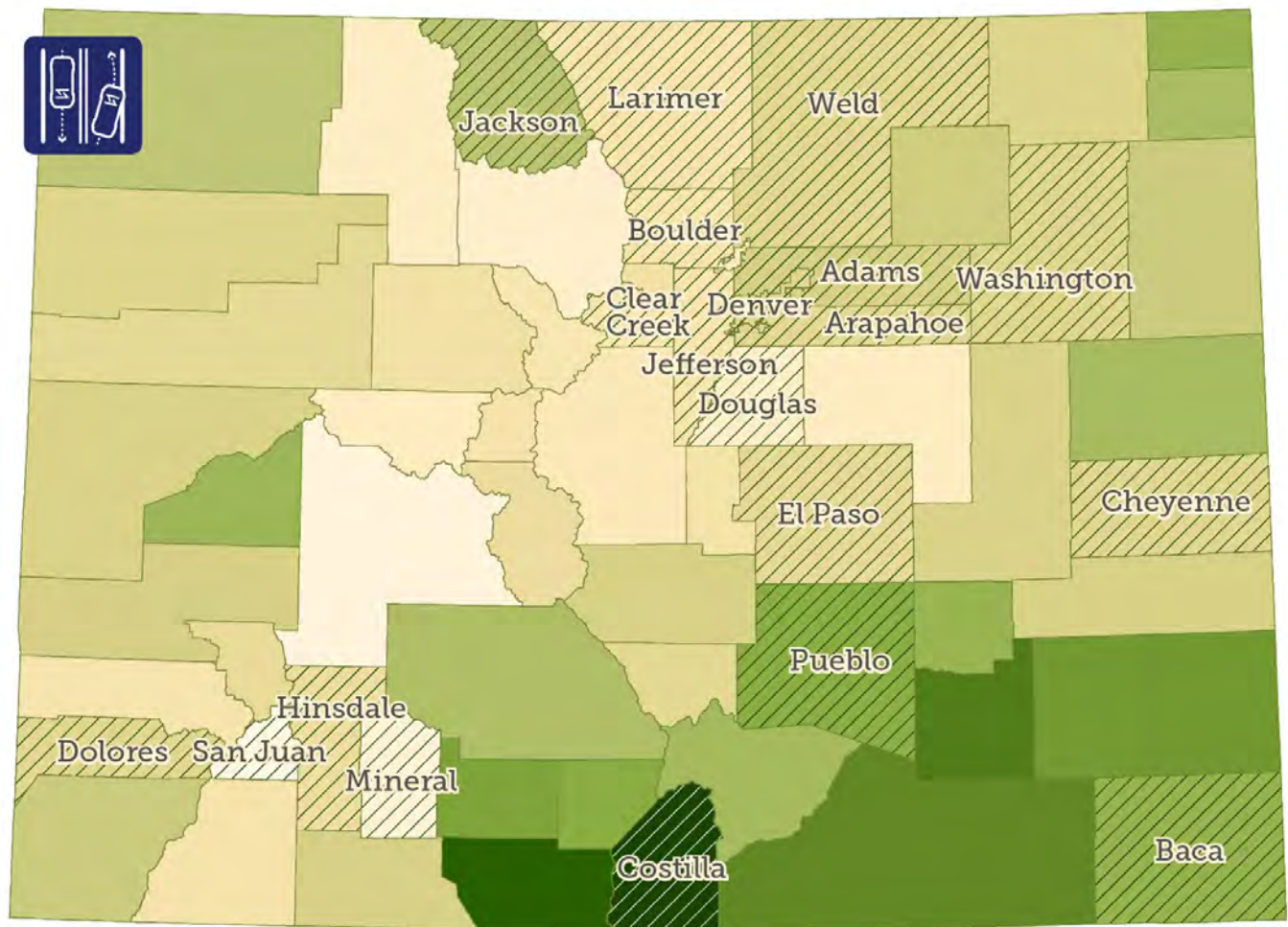


Figure 8-2: Lane Departure-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Figure 8-2 illustrates a relatively stable trend in lane departure fatalities and serious injuries. In 2023, there were 1,775 lane departure fatalities and serious injuries. Lane departure crashes occur more often in rural areas than in urban areas due to higher speeds and reduced lighting infrastructure, making lane markings more difficult to discern. Rural areas account for 62% of lane departure fatal and serious injury crashes, while only accounting for 38% of all crash types in the state. This disparity shows the need for addressing lane departures in rural areas.

Figure 8-3 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest lane departure-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of lane departure-involved fatalities and serious injuries are the counties along the Front Range. Top counties per capita tend to be rural counties along the Eastern Plains and Southwestern Colorado.

Figure 8-3: Top Counties of Lane Departure-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | El Paso              | Mineral                 |
| 2    | Denver               | San Juan                |
| 3    | Adams                | Jackson                 |
| 4    | Jefferson            | Cheyenne                |
| 5    | Weld                 | Baca                    |
| 6    | Larimer              | Hinsdale                |
| 7    | Arapahoe             | Costilla                |
| 8    | Douglas              | Washington              |
| 9    | Boulder              | Clear Creek             |
| 10   | Pueblo               | Dolores                 |

#### Map Legend

##### Weighted TDI Score

Low

High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

The three most common lane departure crash types are fixed objects, overturning, and roadside barriers, as depicted in Figure 8-4. While same direction lane departure crashes are problematic, data indicates that the most severe lane departure crashes involve vehicles veering off the roadway or into oncoming traffic.

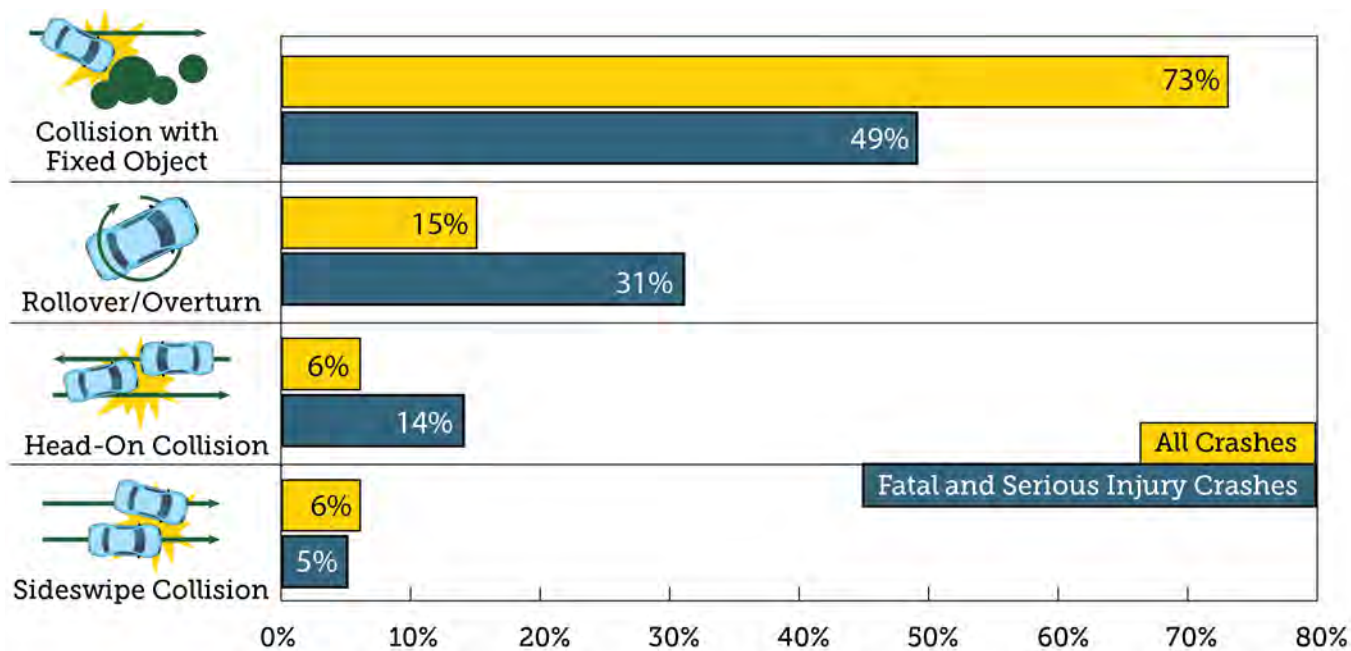


Figure 8-4: Lane Departure Severe Crashes by Crash Type (2019-2023)

## Lane Departure Strategies

### SR1: Install traffic controls and safety barriers

**Reduce fatal and serious injury crashes caused by lane departures by installing improved traffic control devices and safety barriers on high-risk road segments.**

The primary crash types associated with lane departures include fixed object collisions, overturning, and head-on crashes. Installing roadside barriers to keep errant vehicles on the road and enhancing traffic control to improve awareness of changing road conditions can reduce the frequency and severity of lane departure crashes.

### SR2: Improve roadway geometry

**Implement roadway geometric improvements to encourage or accommodate appropriate driving speeds, while providing a forgiving roadside condition that minimizes severe crashes along high-risk road segments.**

This strategy focuses on roadway design that accommodates the inevitability of human error, specifically when lane departures occur. In addition to forgiving roadside designs, aligning roadway design with realistic driving speeds can further mitigate the occurrence of severe lane departure crashes.



## Off-System



**Focus Area Definition:** Crashes that occur on public roadways that are not maintained by the State of Colorado.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries that occur on off-system roadways by five percent from the previous year through 2029.

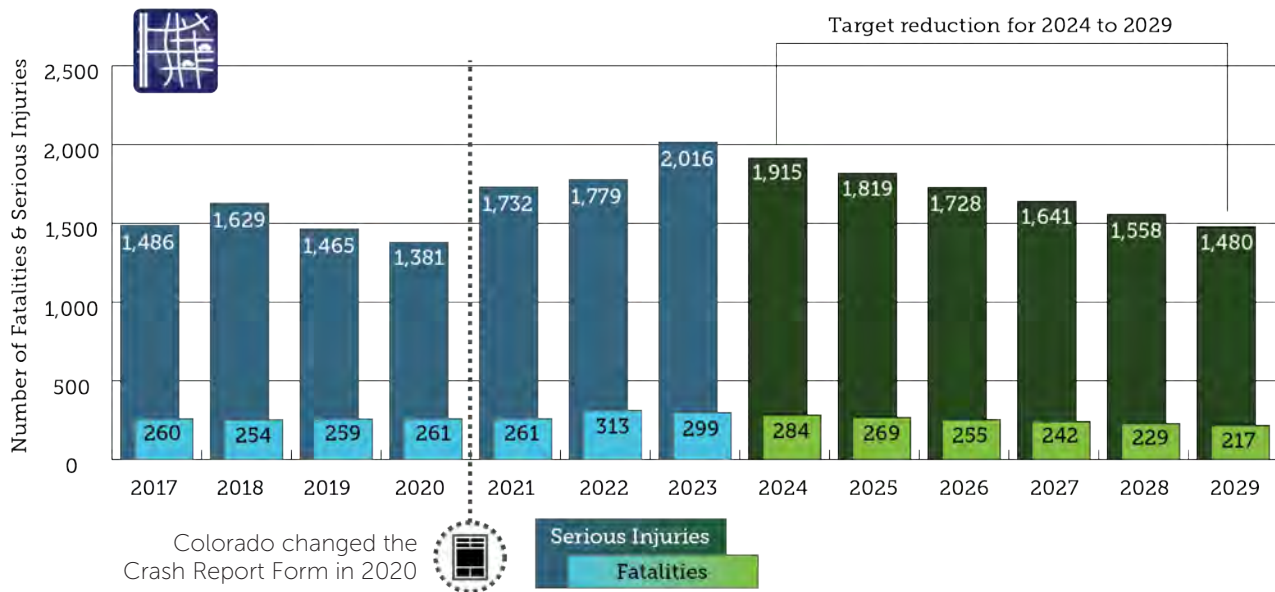


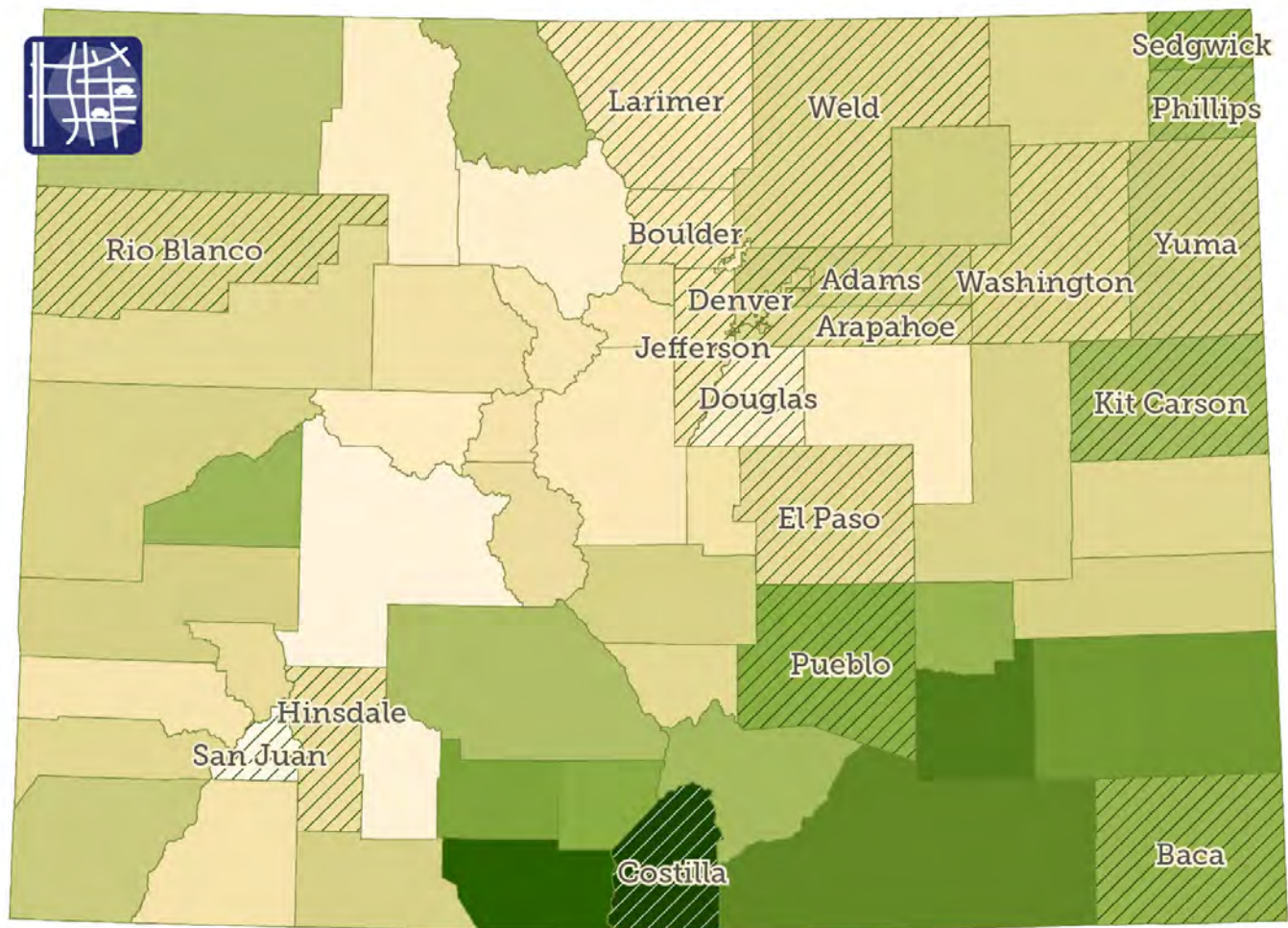
Figure 8-5: Off-System-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Off-system roadways refer to public roadways that are not maintained by the State of Colorado. This means that local jurisdictions (e.g., city, town, county) are responsible for the maintenance and operations of these roadways, including identifying and mitigating safety concerns. While the State is not directly responsible for these networks, safety improvements should be implemented in cooperation with state and local agencies to maximize crash reduction throughout Colorado.

Off-system roadways comprise approximately 90% of the total centerline miles and account for about half of the annual vehicle miles traveled (VMT). While 52% of fatal and serious injury crashes occur on state highways, 48% happen on off-system roadways. This emphasizes the importance of continuing to improve off-system roadways and emphasizing the Safe System principle that responsibility is shared across state and local agencies.

Figure 8-5 shows a steady upward trend in off-system fatalities and serious injuries. In 2023, there were 2,315 off-system fatalities and serious injuries, representing over half of the fatalities and serious injuries in the state. Prioritizing safety on these roadways is critical to reduce the number of fatalities and serious injuries.

Figure 8-6: Top Counties of Off-System-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | San Juan                |
| 2    | El Paso              | Baca                    |
| 3    | Arapahoe             | Hinsdale                |
| 4    | Adams                | Washington              |
| 5    | Jefferson            | Costilla                |
| 6    | Larimer              | Sedgwick                |
| 7    | Boulder              | Kit Carson              |
| 8    | Weld                 | Yuma                    |
| 9    | Douglas              | Phillips                |
| 10   | Pueblo               | Rio Blanco              |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 8-6 shows the counties that have the highest number off-system-involved fatalities and serious injuries. This graphic may seem surprising initially, as Denver County has the highest number of off-system-involved fatalities and serious injuries. This is due to most city streets in large cities and towns being off-system roadways, not all off-system roadways are rural roadways. The rural roadway representation can be seen in the top counties of off-system involved fatalities and serious injuries per capita with San Juan, Baca, and Hinsdale counties being the top counties per capita.

High Risk Rural Roads (HRRR) are important to note within the Off-System focus areas as they align in many cases. The Off-System strategy of providing assistance to local agencies can help local agencies identify HRRRs on their local systems and identify safety improvement projects to improve safety on these HRRRs.

### Off-System Strategies

Due to the shared responsibility of safety on off-system roadways, this Focus Area identifies strategies to support local jurisdictions in making safety improvements on local roadways.

#### **SR3: Provide local agency assistance**

**Provide detailed guidance to local agencies on how to apply for state and federal safety funding and improve outreach to enhance awareness and participation in the Safety Circuit Rider Program, the LTAP, and other relevant assistance programs.**

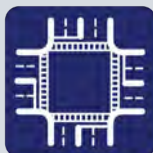
This strategy aims to strengthen support for existing programs, like the Safety Circuit Rider, that provide technical assistance, training, and safety-program support to local agencies to enhance roadway safety across the state. Several different types of funding sources are available including the Highway Safety Improvement Program (HSIP), which is a core federal-aid program to states for the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads.

#### **SR4: Encourage community-specific plans**

**Encourage local agencies to create community-specific safety plans and actively participate in their development, ensuring alignment with the Strategic Highway Safety Plan (SHSP) goals.**

This strategy increases outreach efforts and provides targeted support to help local agencies develop community-specific plans aligned with the goals of the Strategic Highway Safety Plan (SHSP). This alignment results in local safety plans that meet state and federal grant criteria, making it easier to secure funding for projects. Some examples of these community specific plans are Safe Streets for All (SS4A) and building Complete Streets toolkits to guide local governments in planning, designing and implementing roadway designs to accommodate all road users.

## Intersections



**Focus Area Definition:** Crashes occurring at intersections or are intersection-related.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries that occur at intersections by five percent from the previous year through 2029.

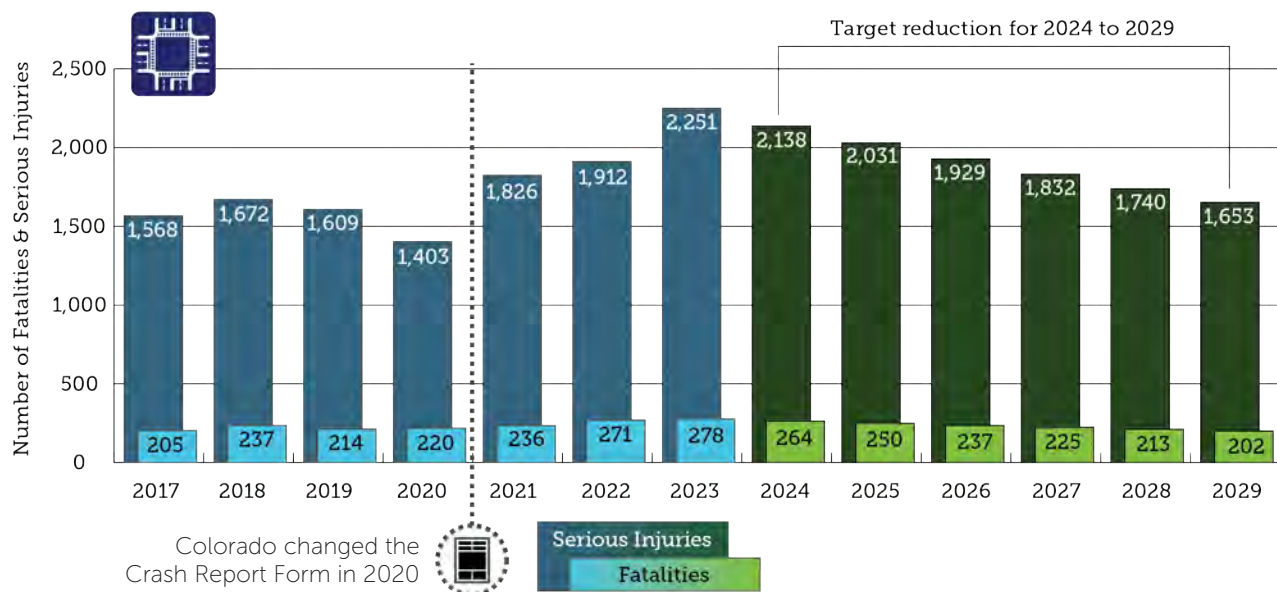
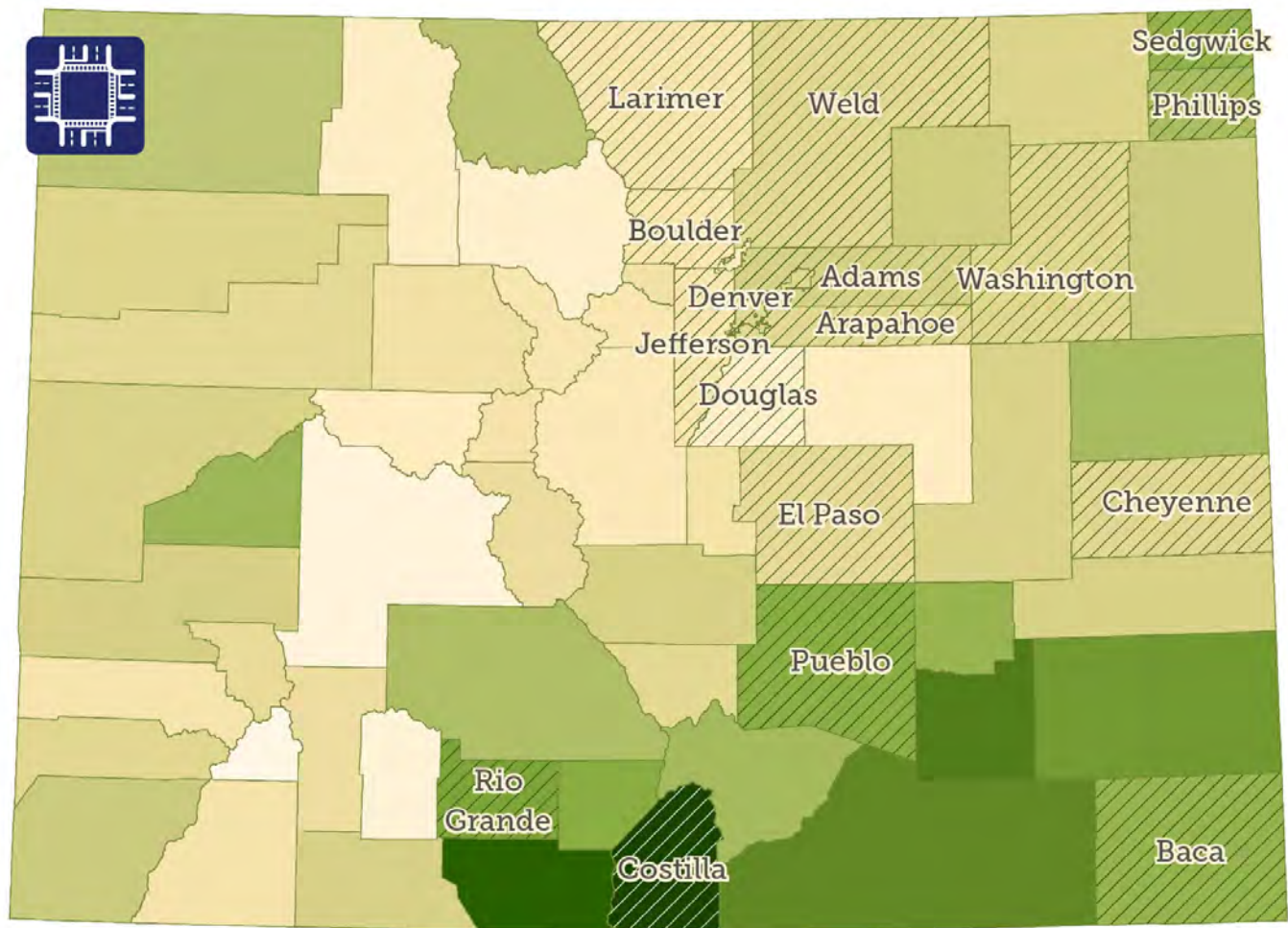


Figure 8-7: Intersection-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Intersections are points where two or more roads cross or meet, bringing together different road users and increasing the chance of collisions. Figure 8-7 defines intersection related crashes as crashes that occur at intersections, but does not include driveway access related crashes. The severity of a crash depends on factors like the angle of impact, speed, and the size of the vehicles involved. Intersections account for 56% of all reported crashes and 51% of all fatal and serious injury crashes in Colorado (Figure 8-1). From 2017-2023, there has been a consistent upward trend in the number of fatalities and serious injuries occurring at intersections (Figure 8-7). In 2023, intersection crashes resulted in 278 fatalities and 2,251 serious injuries. Addressing intersection-related crashes is critical to reducing the overall number of severe crashes statewide.



Figure 8-8: Top Counties of Intersection-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver*              | Phillips                |
| 2    | El Paso              | Denver*                 |
| 3    | Arapahoe             | Sedgwick                |
| 4    | Adams*               | Baca                    |
| 5    | Jefferson            | Washington              |
| 6    | Boulder*             | Boulder*                |
| 7    | Weld                 | Costilla                |
| 8    | Larimer              | Rio Grande              |
| 9    | Douglas              | Adams*                  |
| 10   | Pueblo               | Cheyenne                |

\* represented in both top and per capita categories

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 8-8 shows the counties that have the highest number of intersection-involved fatalities and serious injuries. Top counties overall tend to be the more highly populated urban areas, which also have a higher density of intersections along the transportation network. On a per capita basis, Denver, Boulder, and Adams county are represented as well as rural counties to the east and south.

The three most prevalent crash types at intersections are broadside, approach-turn, and VRUs. Targeted efforts to raise awareness and reduce these crash types are key to mitigating intersection-related crashes.

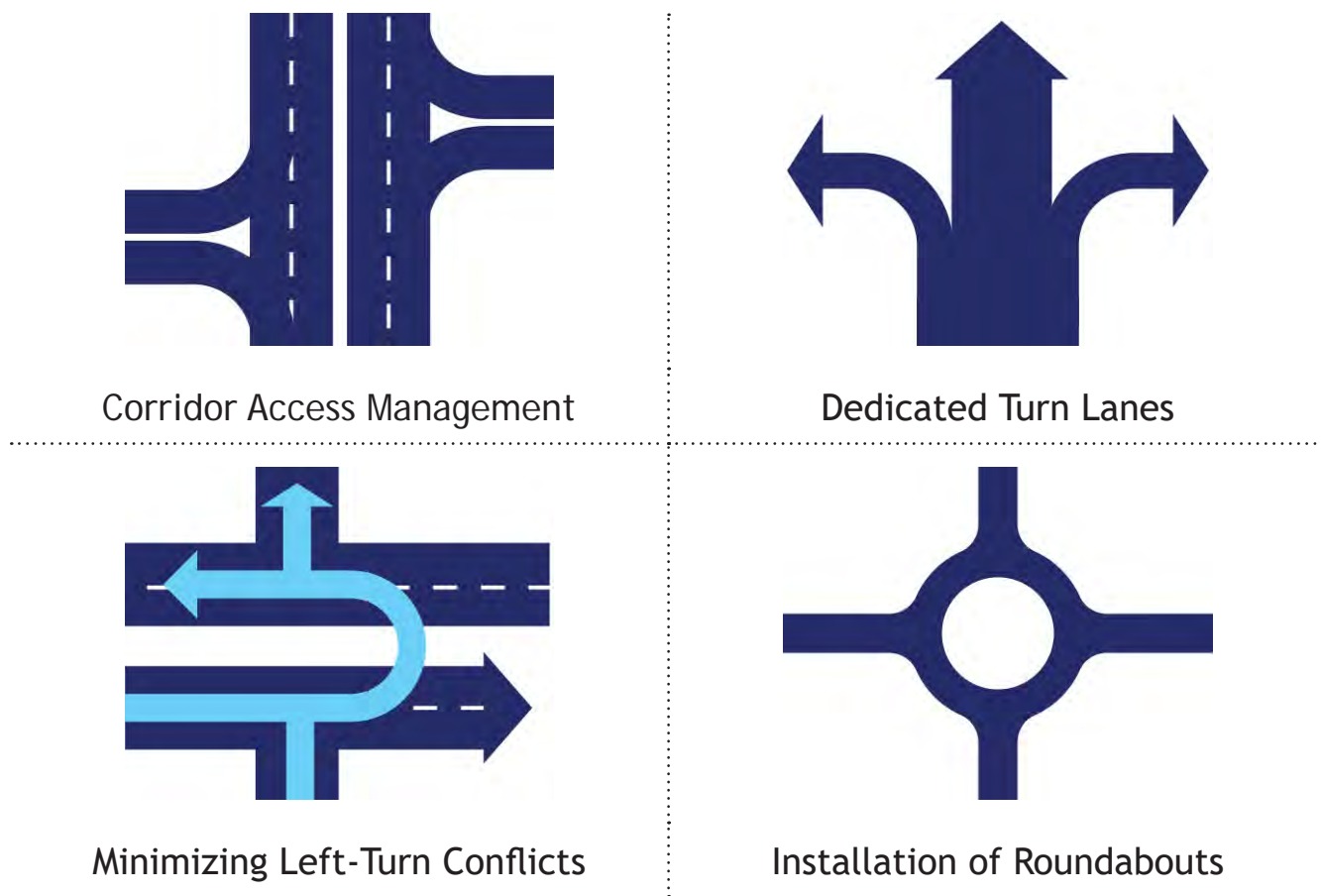


Figure 8-9: Key Safety Countermeasures to Reduce Intersection-Related Crashes

According to the U.S. Department of Transportation (USDOT), corridor access management, dedicated turn lanes, minimizing left-turn conflicts, and roundabouts are safety countermeasures proven to reduce intersection-related crashes. These proven countermeasures reduce crash severity by managing impact forces on drivers, occupants, and all other road users. Not all intersection types are familiar to road users; education and training can help individuals properly navigate intersections safely.

## Intersection Strategies

### **SR5: Reduce intersection conflicts**

**Implement design and operational improvements that reduce the number of conflicts at intersections, especially those experiencing a high number of severe broadside and approach-turn crashes (Aging Pedestrian Strategy).**

This strategy aims to reduce intersection conflicts that often result in broadside or approach turn crashes, accounting for 54% of all fatal and serious injury crashes. Good access management principles reduce or eliminate these conflicts at intersections by combining accesses, reducing the allowable movements at intersections, or implementing alternative routes such as service roads on high-traffic roadways. Alternative or innovative intersection types can have fewer conflicts by design.

### **SR6: Perform Intersection Control Evaluations (ICE)**

**Perform ICE prior to upgrading or constructing intersection improvements.**

This strategy emphasizes the importance of preemptively addressing crashes through the application of a data-driven, performance-based framework to screen intersection alternatives and select an optimal solution.

### **SR7: Incorporate VRU designs**

**Incorporate project design elements to improve safety for Vulnerable Road Users (VRUs) where there is a high number of fatal/serious injury VRU crashes (Aging Pedestrian Strategy).**

Intersections create additional risk for pedestrians and bicyclists. Traditionally, intersection design has prioritized motorists over VRUs. This strategy shifts focus to designing intersection improvements that enhance safety for VRUs, particularly pedestrians, utilizing proven safety countermeasures.

### **SR8: Prioritize high-risk intersection locations**

**Improve safety at high-risk intersections by addressing design deficiencies such as inadequate lighting, insufficient sight distance, and substandard turning radii.**

Data analysis identifies over 3,000 severe crashes at intersections with poor lighting or insufficient visibility, with pedestrian crashes disproportionately common. This strategy addresses intersection deficiencies to enhance driver and pedestrian safety. FHWA identifies having greater sight distances at an intersection as a proven countermeasure that can greatly improve safety at an intersection.

### **SR9: Implement improved traffic controls**

**Implement improved traffic controls at intersections with a high frequency of broadside, approach turn, and rear-end fatal and serious injury crashes (Aging Drivers & Pedestrians Strategy).**

In situations where physical improvements are infeasible, this strategy focuses on cost-effective traffic control measures to reduce the frequency of severe crashes. Targeted improvements include enhanced striping and signage, signal systems, and other traffic control measures to mitigate crash risk.

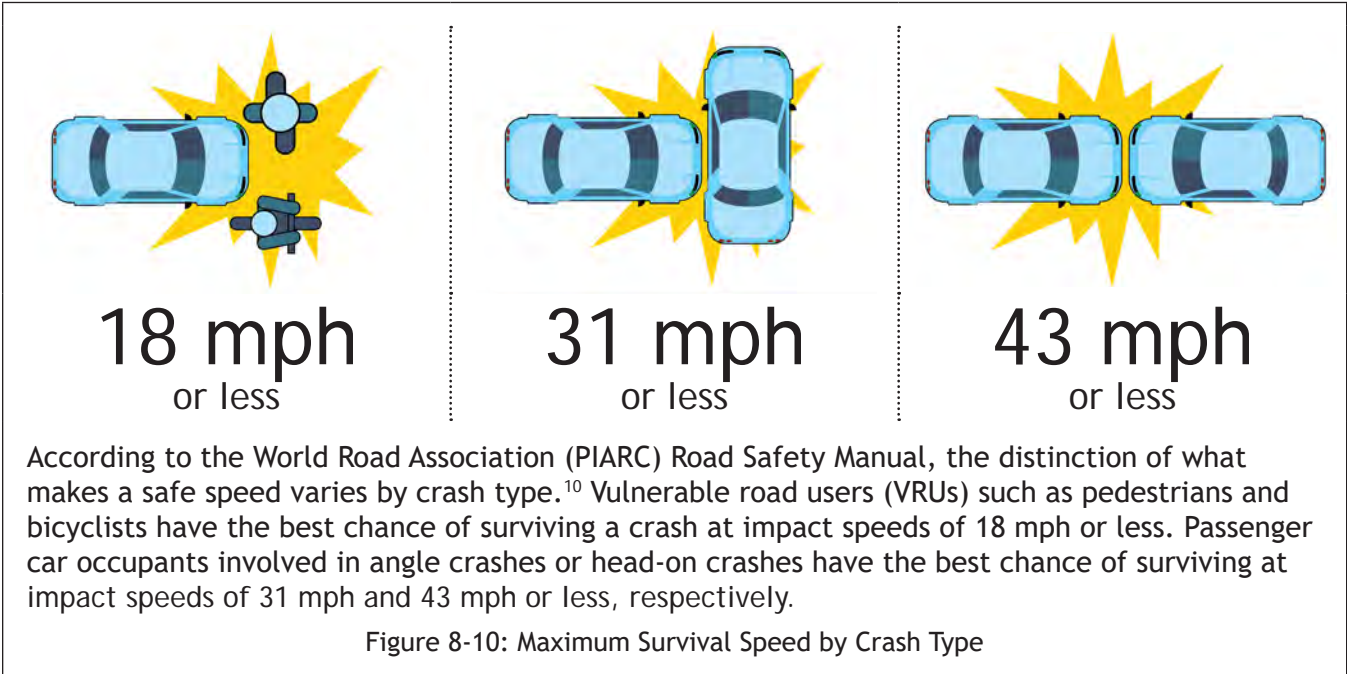
# Speed Management



**Focus Area Definition:** Roadway safety issues that are related to speed fostered by the roadway environment.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries occurring at high speed by five percent from the previous year through 2029.

Vehicles traveling at higher speeds increase both the probability and severity of crashes. Higher speeds reduce the available time for a driver to perceive and react to an unexpected event. Further, higher speeds result in larger kinetic energy transfer to the human body during a crash, leading to more severe crash outcomes.



Driver speed is a psychological factor and driver, vehicle, roadway, and environmental characteristics are all factors that influence driving speeds. This Focus Area promotes roadway infrastructure design elements that encourage lower speeds, thus reducing crash risk and severity. Because Colorado’s crash report does not provide detailed roadway characteristics, a crash summary is not available for the Speed Management Focus Area.

Most drivers will select a speed they consider appropriate for the conditions. This decision is dependent on several factors, including the driver’s perception of risk, traffic flow (i.e., the speed of other vehicles around them), and road design. Specific roadway design characteristics that influence driver speed choice include cross-sectional elements (e.g., number of lanes, lane width, shoulder width, and median type), access point density and intersection spacing, horizontal curvature, vertical grades, roadside conditions, and sight distance.

<sup>10</sup> The Safe System Approach,” The Safe System Approach | Road Safety Manual - World Road Association (PIARC), accessed December 13, 2024, <https://roadsafety.piarc.org/en/road-safety-management/safe-system-approach>.



Roadways have two primary transportation functions: mobility and access. Roadway classification describes where different categories of roadways fall within these functions. Very high mobility roadways (e.g., freeways and expressways) permit less access to adjacent land while minor roads (e.g., residential local streets) have much lower mobility but a high level of access. Arterials and collectors fall between these two extremes with arterials providing a higher level of mobility and collectors providing a higher level of access.

Principal Arterial and Minor Arterial roadways account for nearly 60% of all fatal crashes (Figure 8-11), while only accounting for 40% of the total vehicle miles traveled (VMT). Crashes on these roadway types are disproportionately high when exposure is considered. In Colorado, interstate highways account for 15% of all fatal crashes, while accounting for 28% of all VMT. On a miles traveled basis, interstate highways are safer than arterials. The Principal Arterial and Minor Arterial roadway environment and how it contributes to speeding and other crash contributing factors are key subjects of this Focus Area.

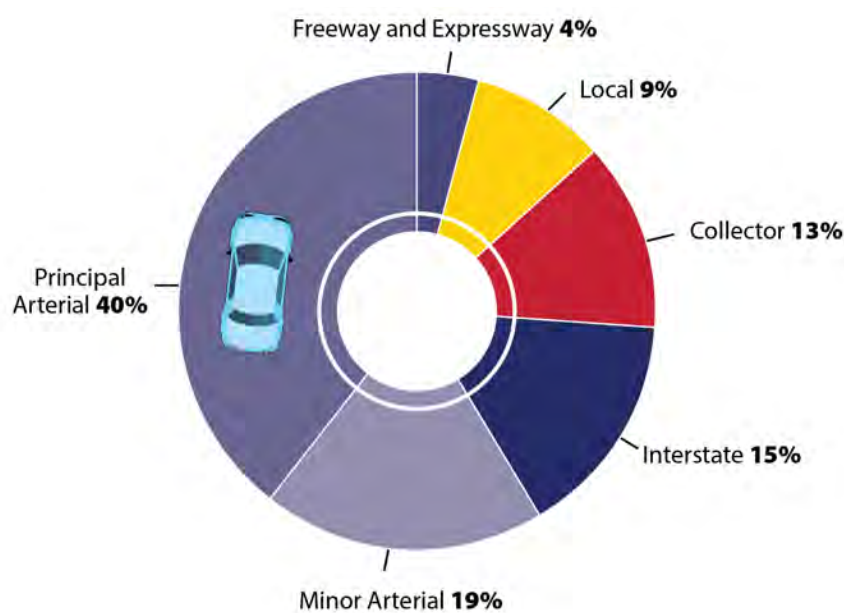


Figure 8-11: Fatal Crashes by Roadway Classification

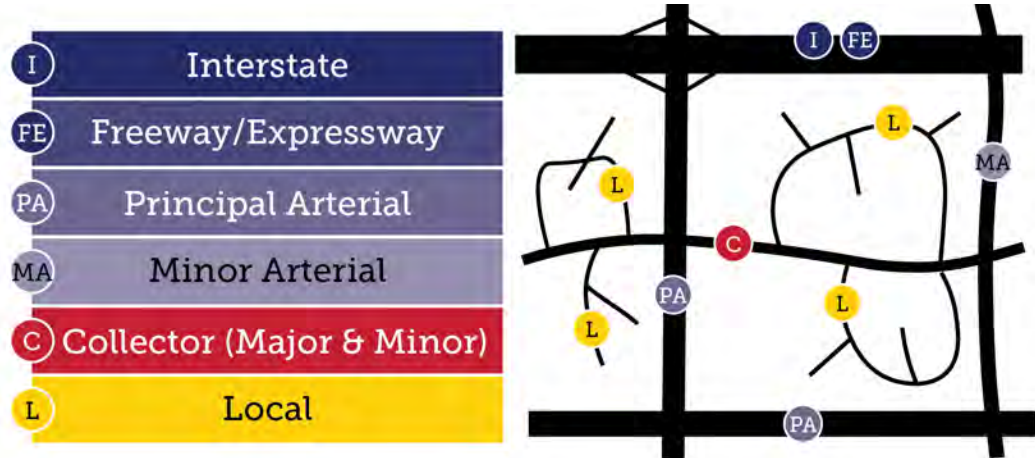


Figure 8-12: Typical Features of Roadway Functional Classifications

## Speed Management Strategies

### **SR10: Promote appropriate speeds**

**Modify the transportation system to promote appropriate vehicle speeds at locations where higher speeds contribute to severe crashes.**

Higher speeds carry more kinetic energy and decrease response times by drivers, which results in higher crash severities, especially in crashes involving VRUs. This strategy considers the design of the roadway environment and how it contributes to driver behavior. The goal is to implement transportation system improvements that encourage safer speeds. Some examples include bump-outs where there are pedestrian crossings or narrowing the perceived width of a roadway on high-speed segments.

### **SR11: Set safe and realistic speed limits**

**Set safe and realistic speed limits by considering contextual factors such as road function, land use, traffic volume, active transportation activity, crash history, environmental conditions, and road design.**

This strategy encourages the use of context-sensitive speed limit setting practices. Context-sensitive speed limits consider factors such as road function, land use, traffic volume, pedestrian activity, crash history, environmental conditions, and road design. While lower speed limits generally improve crash outcomes, areas where drivers feel comfortable traveling at higher speeds require careful consideration to prevent speed differentials that contribute to increased crash risk.



## Chapter 9: Post-Crash Care

## Introduction

Post-Crash Care refers to the collective ability to increase survivability of crashes by responding to crashes in a timely manner, minimizing the severity of injuries, preventing secondary crashes, and providing a safe environment for those responding to crashes. All actions in providing effective care for the injured are time-sensitive, starting with activating the emergency care system, continuing with care at the scene, then transporting to a health care center, and finally caring for the victim(s) at the medical facility.



## Focus Areas

Post-Crash Care includes two Focus Areas:

Emphasis Area:



Post-Crash Care

Focus Areas:



Traffic Incident Management



Emergency Medical Services

Strategies in the Post-Crash Care Emphasis Area address both Focus Areas.



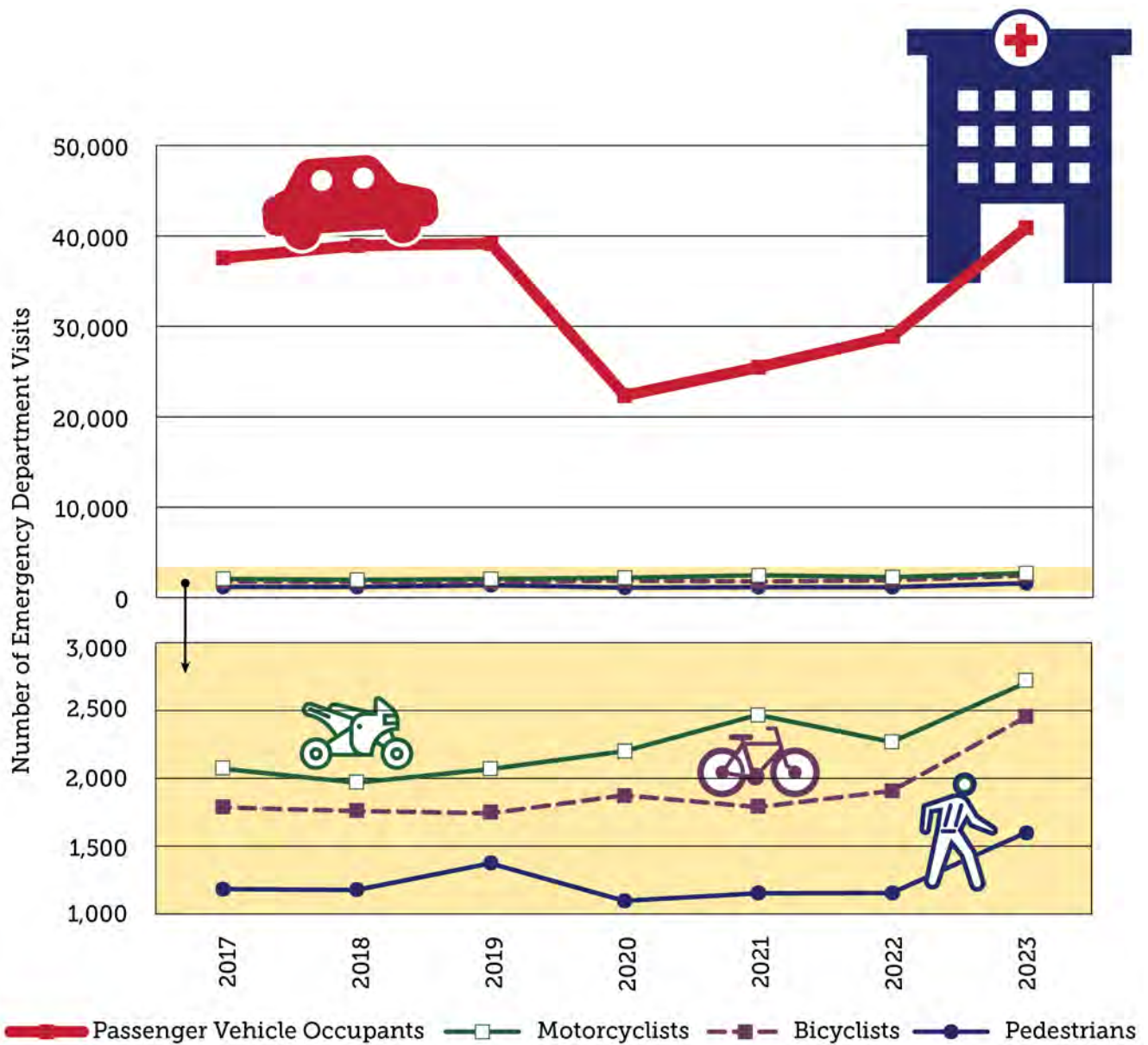


Figure 9-1: Emergency Department Visits by Mode (Source: CDPHE)

According to Colorado Department of Public Health and Environment (CDPHE) data, the number of emergency department visits from roadway crashes have steadily increased across all modes, but particularly for pedestrians, bicyclists, and motorcyclists. From 2017 to 2023, the number of emergency department visits increased by 35% for pedestrians, 37% for bicyclists, and 31% for motorcyclists. In comparison, the number of visits for passenger vehicle occupants increased by 9% over the same period.

## Traffic Incident Management



Traffic crashes happen daily on Colorado's roads, necessitating a coordinated effort from all first responders including law enforcement, emergency medical services (EMS), and towing companies to manage the aftermath safely and efficiently.

These teams collectively engage in Traffic Incident Management (TIM) with the objectives of reducing crash duration, restoring normal traffic flow, and maintaining safety at the crash scene. According to crash data, there were 4,679 secondary crashes in Colorado from 2021 to 2023, resulting in 177 serious injuries and 28 fatalities. A secondary crash is defined as a crash occurring within an incident scene area or within a traffic queue, including the opposite direction, resulting from an original crash. Such crashes are particularly dangerous for crash response teams.

To improve safety at crash sites, Colorado is actively enhancing training programs, expanding the use of technology for better communication with drivers and responders, and increasing public awareness through campaigns. Colorado has a statewide TIM program to coordinate efforts and to facilitate continuous dialogue on best practices.

## Emergency Medical Services



The effects from a crash linger well beyond the initial impact. EMS are vital in this life-saving process through rapid response and appropriate care.

According to 2018-2022 data from the Fatality Analysis Reporting System (FARS) published by the National Highway Traffic Safety Administration (NHTSA), 60% of fatalities from Colorado crashes died at the scene, while five percent died en route to medical services, and 35% succumbed to their injuries later. Immediate medical intervention is critical, as it often determines whether a crash results in an injury or escalates to a fatality.

To deliver the highest standard of care and minimize injury severity and long-term costs, it is essential that EMS systems are adequately staffed and equipped. According to the CDPHE, 911 response calls increased 13% from 2019 to 2022, and interfacility transport has increased by 17%, both of which are higher than the 2.9% statewide population growth in the same period. The expansive geography of Colorado and the disparate density of services between urban and rural regions result in a wide variability in response time and consistency of care. Enhancing EMS effectiveness involves developing a comprehensive trauma system, elevating the level of care provided by trauma centers, and standardizing EMS practices to reduce variability in care. Colorado's EMS efforts are led by the State Emergency Medical and Trauma Services Advisory Council (SEMTAC).

## Post-Crash Care Strategies

The following five strategies help to advance the standard of practice for both TIM and EMS activities across Colorado and promote multidisciplinary coordination.

### **PC1: Improve collection of post-crash care data**

**Improve data collection, analysis, and dissemination procedures to allow for increased integration of data between safety partners.**

Quality data are needed to inform practitioners on the process and outcomes of activities that address post-crash care. Data enables a better understanding of the impact of timely response, quality of care, and adherence to performance metrics. For example, post-crash care practitioners can review 911 data to analyze the elapsed time between notification and the dispatch of field resources. Since agencies vary in size and sophistication, there is a range in data capabilities and metrics across Colorado. Activities for this strategy include examining methods to improve data integration and standardization.

### **PC2: Improve quality of care**

**Develop processes to improve quality of care for those involved in crashes from onset of crash through treatment.**

Agencies and organizations involved with post-crash care understand the programs and initiatives that need to be performed to improve quality of care; however, implementation is challenging. Documented processes that include prioritized actions and milestones to track progress are needed. The SEMTAC is an existing collaborative group that can facilitate prioritized activities to improve quality of care.

### **PC3: Provide education on post-crash care best-practices**

**Implement programs to educate practitioners and the public on best practices on post-crash care activities.**

It is important for practitioners to receive the necessary training and education to fully understand the challenges that limit progress on addressing post-crash care and the promising activities that can help to overcome these concerns. Furthermore, education and opportunities to collaborate with other partners can help to identify efficiencies. Organizations like the SEMTAC could help to establish and monitor an improved post-crash care education program.

### **PC4: Enhance programs in light of differences in post-crash care outcomes**

**Evaluate opportunities to improve post-crash care environment and determine opportunities to enhance programs and activities.**

A major gap in providing quality post crash care is the notable difference between urban and rural areas in the time between a crash and when a victim arrives at a hospital. The remoteness of crash locations and the lower density of EMS providers and facilities in rural areas contribute to longer response times. Activities such as implementing new technologies can help to address these challenges.

## PC5: Support statewide traffic incident management (TIM) activities

### Continue to support statewide TIM activities.

Colorado has an extensive statewide TIM program that includes activities that provide education and training opportunities, deploy safety patrols, and host an electronic resource library. This strategy focuses on continuing and enhancing these existing activities and strengthening the connection between incident management with the other Emphasis Areas. Education and training also can reduce secondary crashes on the roadway as activities are optimized and resources are shared between agencies and organizations.



EMS professionals are often first responders in emergencies, where they encounter patients suffering from severe trauma, hemorrhage, or other critical conditions requiring immediate medical intervention. Transfusions administered closer to the time of injuries using whole blood increase the chance of survival. Whole blood contains all blood components - red blood cells, platelets, and plasma. The integration of whole blood into pre-hospital care enhances the capacity of EMS to save lives and improve outcomes in emergency situations. Colorado has a Whole Blood Coalition with the mission to implement whole blood programs statewide.





COLORADO

## Chapter 10: Implementation

Effective implementation of the Strategic Highway Safety Plan (SHSP) requires coordination and collaboration among all stakeholders. The SHSP defines a system, organization, and a process to achieve an enhanced level of roadway safety by integrating the work of the disciplines and agencies involved. Strategies and implementation efforts provide a structured framework to integrate efforts from local, county, regional, state, Tribal, and federal agencies, along with private sector and advocacy groups. This multidisciplinary approach unites all stakeholders in a shared mission to enhance roadway safety. This chapter outlines approaches to implementing the SHSP through action planning, collaborating, and monitoring.

## Focus Area Categorization

The SHSP identified Focus Areas that could have the greatest impact on fatalities and serious injuries over the next five years. In this section, Colorado looked deeper at the data trends within individual Focus Areas to identify commonalities that allow them to be grouped into categories to illustrate the underlying trend. The Focus Area categorization helps inform the development of effective actions based on these data trends.

Focus Area categories include:

- » **Safety Culture:** Focus Areas that are overarching and aim to grow safety supportive beliefs and behaviors among organizations and the public.
- » **High-Impact:** Focus Areas with the highest proportion of fatalities and serious injuries. Effective strategies in these areas will lead to greater impacts in reducing fatalities and serious injuries. Strategies and actions under the High-Impact Focus Areas will prioritize efforts proven to have a positive impact on safety. Engineers, planners, and other stakeholders can look to these Focus Areas to identify opportunities to have the greatest impact on reducing fatalities and serious injuries.
- » **Emerging and Monitoring:** These areas are experiencing increasing numbers of fatalities and serious injuries or other external factors such as policy changes or emerging technologies. Strategies and actions under the Emerging and Monitoring Focus Areas will evolve and be more flexible in response to the monitoring efforts. The strategies and actions will also be supported by data-driven successes while also being open to piloting new approaches.
- » **Double Down on Success:** Focus Areas where severe crash reduction is actively being addressed, and fatalities and serious injuries are stable or decreasing. These areas may have programs and policies in place or have active stakeholder initiatives supporting safety improvements. The Double Down on Success Focus Area strategies and actions replicate, adopt, and adapt activities with previous demonstrated success in improving safety.

Figure 10-1 illustrates the categorization of each Focus Area. Strategies within each Focus Area align with the overall category to encourage effective and efficient implementation. For example, strategies within Focus Areas under the Emerging and Monitoring category emphasize monitoring data trends and adjusting efforts to reflect the changing landscape of the safety challenges. In comparison, strategies under the Doubling Down on Success category aim to build on previous successes and expand effective programs and projects.





Figure 10-1: Focus Area Categorization

## Action Plans

Successful SHSP implementation will result in transportation safety improvements that save lives and reduce injuries. The SHSP is implemented through the objectives, strategies, and Annual Action Plans developed for each Emphasis Area.

Annual Action Plans are updated through the ATS initiative and identify next steps for selected strategies, assign implementation champions and establish timelines to turn SHSP concepts and ideas into a reality.



Figure 10-2: SHSP Action Plan Framework

The Emphasis Areas, Focus Areas, and strategies outlined in the SHSP create the framework for reducing fatalities and serious injuries. Action planning transitions from planning to effective implementation. The action planning framework is illustrated in Figure 10-2. The priority of action planning is to advance efforts within each Focus Area to reach the SHSP goals.

Annual Action Plans promote effective and efficient implementation as individual safety improvement actions are refined and improved over time. Changes in transportation safety are often unpredictable and require flexible strategies and actions. The SHSP is updated every five years, allowing five years for potential changes in areas such as legislation, technology, public health, planning and engineering, and best practices. For example, the recent introduction of the Colorado hands-free law, introduced a need for additional education and media outreach.



## Develop an Action Plan

The Advancing Transportation Safety (ATS) initiative develops Annual Action Plans that provide a blueprint for implementation of the SHSP. In order to produce, implement, and refine Annual Action Plans, ATS engages Emphasis Area Working Groups that meet monthly. At quarterly working group meetings, action champions report out on progress of each specific strategy.

The 2025 SHSP's inaugural Annual Action Plan will be informed by members of the ATS Emphasis Area Working Groups and finalized and adopted by the ATS Steering Committee by the end of Federal Fiscal Year (FFY) 2025. The Annual Action Plan is a living document with formal updates and reporting occurring at 12-month intervals over the life of the SHSP. Annual Action Plans will include assessment of strategy readiness and identification of funding sources, resources available, cost effectiveness, champions, inter-agency partnerships, performance measures, and timelines.

When identifying actions, ATS establishes the following:

» **Champion(s): Determine the stakeholder(s) to lead or support implementation.**

This process requires ATS members to identify which individuals will be responsible for a specific strategy or action.

» **Partnerships: Determine the long-term 'owner(s)' of the strategy.**

Many of the strategies selected for implementation benefit from collaboration across organizations and agencies. Members of ATS enlist support for the Champion(s) during implementation, often based on historical partnerships and shared safety improvement priorities. Other agencies may advance strategies independently through their own strategic planning or programming. In such cases, ATS maintains communication with the lead agencies to collect periodic updates and tracking information. Identifying who is the long-term owner and engaging them early fosters sustainability.

» **Effectiveness: Determine the potential impact on fatalities and serious injuries.**

The ATS initiative identifies the potential impact of each action on SHSP overall goals and Focus Area goals, and the cost-effectiveness of each action. Cost-effectiveness evaluations weigh the expense of implementing an action against its effectiveness in reducing fatalities and serious injuries measured in monetary terms using approved data sources, like Federal Highway Administration's (FHWA) Proven Safety Countermeasures, National Highway Traffic Safety Administration's (NHTSA) Countermeasures that Work, and the CMF Clearinghouse as well as evaluation results from peer states. For HSIP and other safety funding programs, formal cost-effectiveness of individual projects is developed at the time of grant application following the Benefit Cost Analysis (BCA) processes outlined in those programs. ATS also develops theories of change that define the needed skills/knowledge/beliefs and behaviors to achieve the desired outcomes, increasing the likelihood of timely and effective implementation.

» **Level of Effort: Determine the ease of implementation.**

This includes identifying the resources in place to support implementation or identifying and characterizing current and future challenges. Resources may include funding streams, staffing availability, policies, and political will.

The Annual Action Plans compile inputs for the above elements and determine a Readiness Score for implementation of SHSP strategies. The resulting scores identify strategies with the structures in place for immediate implementation and the greatest impact.

Strategies may also be categorized as mid-term (two-to three years) and long-term (four to five years). For example, mid-term strategies have supporting elements, such as proven effectiveness, but lack sustained champions or resources. Actions for mid-term strategies may focus on securing needed resources or selecting a champion to increase the strategy's readiness. Actions for long-term strategies may include additional groundwork such as identifying financial support, educating stakeholders, growing support among leaders, and identifying potential champions.

The ATS Annual Action Plan process allows the ATS to codify a focused implementation roadmap that stays current and adapts over the five-year implementation period of the SHSP.

## Action Plan Reporting and Evaluation

Led by the groundwork conducted to measure strategy readiness and identify powerful actions, Annual Action Plans and Annual Reports serve as the mechanism to report and measure success in SHSP implementation. Annual Reports evaluate the current status of actions within each strategy, and analyze data to determine progress on the performance measurement targets identified in the SHSP at the Focus Area and Statewide levels. Annual Reports are utilized by the Emphasis Area Working Groups and Steering Committee to develop and refine the subsequent Annual Action Plan. Annual Reports will be completed alongside development of the Annual Action Plan.

Regular meetings with ATS members provide an opportunity for reporting on the progress of assigned strategies and actions, supporting continuous improvement and collaborative problem solving. Additionally, Annual Action Plans evaluate the effectiveness of ATS, identifying which strategies and actions were successfully implemented and which outstanding strategies and actions need to be incorporated into the next year's Annual Action Plan.

This evaluation process also provides opportunities for action items to be reassigned, redirected, or removed. Implementation efforts are intended to be flexible to reflect the changes and progress in highway safety-related challenges. Annual Action Plans are nimble and proactive, allowing for ATS and other partners to take on strategies and action items suitable to the implementation environment. Successes illuminate opportunities to double down on what works—both continuing along the forged path as well as applying new concepts to other Focus Areas to test applicability. Challenges or setbacks are opportunities to learn, adjust, and try again.

**Readiness Score:** Members of ATS review strategies for existing partnerships, anticipated effectiveness, estimated level of effort, and existing champions. The exercise results in a Readiness Score that identifies strategies best primed for early implementation. Annual Action Plans document this process annually to identify the strategies ready for implementation each year.

## Promote Additional and Alternative Strategies

While the SHSP is intended to be a holistic roadmap for saving lives, not all elements of traffic safety are featured explicitly within the plan or its strategies. The SHSP prioritizes areas where the State of Colorado can see the largest improvement in safety, and while these are crucial for realizing the SHSP Vision, the plan recognizes that other smaller or tangential efforts also contribute to reducing fatalities and serious injuries.

There is flexibility within SHSP implementation to adapt to new and changing priorities, specifically in support of proven countermeasures, programs, and policies. Implementation efforts are not limited to the strategies identified in the SHSP. The SHSP encourages safety partners to promote and implement strategies to advance transportation safety across the state, including innovative strategies. The SHSP is a tool for identifying regional challenges and expanding opportunities to implement data-driven solutions.

## Align With Regional and Local Safety Planning Efforts

The SHSP's Vision and Mission recognize that achieving zero fatalities and serious injuries requires collaboration with agencies and partners across Colorado. Aligning regional and local safety planning efforts with the SHSP furthers the Safe System Approach tenet that responsibility is shared. Regional and local jurisdictions are encouraged to participate in statewide safety planning initiatives such as ATS, Emphasis Area Working Teams, the Safety Summit, transportation safety task forces, and support safety related legislative efforts. The Statewide Safety Champion, ATS, and Safety Circuit Rider Program are resources for local and regional safety improvements and strategy implementation.

## Identify Funding and Resources

The SHSP must be updated every five years to maintain Colorado's eligibility for federal Highway Safety Improvement Program (HSIP) funding. Each state receives HSIP funds to implement safety programs and projects to improve safety on their roadways. In turn, each state must submit an annual report summarizing the implementation and effectiveness of those safety programs and projects. Colorado's safety expenditures are not limited to HSIP funds, and this section outlines funding resources local agencies can use to address the safety Focus Areas in this plan.

While HSIP funding supports infrastructure improvements, NHTSA focuses on human behavior-related safety initiatives. NHTSA requires Colorado to submit a Triennial Highway Safety Plan (3HSP) and promotes highway safety awareness programs and initiatives. The SHSP's safety priorities align with both the HSIP and 3HSP. Related NHTSA safety improvement initiatives include Section 402 and Section 405 funding programs.

Local agencies can apply for several discretionary grants based on community needs. The Infrastructure Investment and Jobs Act (IIJA) established the Safe Streets and Roads for All (SS4A) program, allocating \$5 billion from 2022 to 2026. Communities receiving SS4A grants are first tasked with developing a safety action plan and can then apply for implementation grants.

Additional discretionary grants are available to improve transportation safety, including Safe Routes to School, Infrastructure for Rebuilding America (INFRA) Grant Program, Railroad Crossing Elimination (RCE) Grant Program, and the Tribal Transportation Program Safety Fund (TTPSF). Colorado's Local Technical Assistance Program (LTAP) offers assistance with securing funding for local roadway safety improvements.

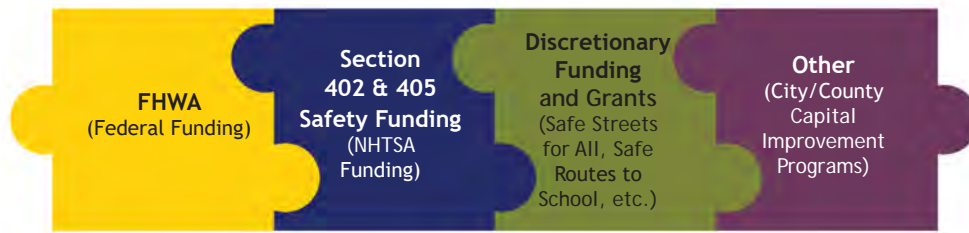


Figure 10-3: Grant Funding Programs and Sources

## Implement the Safe System Approach

The implementation process utilizes the Safe System Approach (SSA) as a guide for holistic safety improvements across Colorado. The SHSP and identified strategies reflect the needs within the Safe System elements (Safety Culture, Safe Driving, Safe People, Safe Roads, Post-Crash Care) and implementation processes will rely heavily on realizing the principles of the SSA. The mechanisms for realizing these principles are highlighted below.

### Death and Serious Injuries are Unacceptable

Implementing the principle that “Death and Serious Injuries are Unacceptable” in Colorado requires a comprehensive vision centered on zero traffic-related fatalities and serious injuries. Each Focus Area within the SHSP sets targets to contribute to the overall goal, with the High Impact Focus Areas having the greatest potential to reduce fatalities and serious injuries. Assessing the effectiveness of these strategies is crucial, and the ATS Annual Action Plan Readiness Score is an essential tool in this regard. Strategies with high Readiness Scores may have success in reducing crash severity and frequency in the near term, subject to sustainable funding and staffing. By focusing implementation efforts on strategies that have a high Readiness Score, Colorado capitalizes on efforts likely to yield “quick wins,” while simultaneously working to improve the readiness of equally important longer term strategies.

### Humans Make Mistakes

This SSA principle involves designing and operating a transportation system that accommodates human errors, preventing common mistakes from leading to deaths or serious injuries. Recognizing that mistakes are inevitable, the SHSP strategies and actions focus on creating forgiving road environments that increase safety redundancy and minimize the consequences of human errors. This involves implementing roadway infrastructure that prevents or minimizes the impacts of crashes if mistakes do occur and exploring advanced technologies to assist roadway users and operators. Colorado’s approach is adaptive and reflects regional needs—whether addressing the high speeds common in rural areas or managing the high volumes of pedestrians and bicyclists in urban areas. By integrating these safety measures and applying a data-driven approach, Colorado remains committed to a context-sensitive approach that includes redundancy to prioritize human life when mistakes occur.

### Humans are Vulnerable

Recognizing that human bodies have finite tolerance for crash forces, the SHSP addresses separating users in time and space and reducing speeds and speed-related behaviors to minimize the impact of



crashes and increase chances of survival. Infrastructure design, lighting, advanced technologies, road signage, and other improvements included in the SHSP improve safety for all users with an emphasis on Colorado's Vulnerable Road Users (VRUs) including pedestrians, bicyclists, and older road users. The state aims to build a transportation system inherently protective of human life and resilient to human vulnerabilities, so that even in the face of errors, fatalities and serious injuries are significantly reduced.

## Safety is a Shared Responsibility

Safety is a shared responsibility involving various stakeholders including planners, designers, public health representatives, first responders, the court system, and road users. Each partner has a unique perspective of the larger system. Primary leaders in implementing the SHSP and sharing the responsibility include the ATS initiative, the Statewide Safety Champion, and agency plan signatories.

ATS:

- » Led by state agency leaders and comprises federal, state, regional, Tribal, and local stakeholders.
- » Evaluates program outcomes annually.
- » Establishes policies, reviews progress, addresses challenges, and promotes collaboration.
- » Develops and implements annual action plans for implementation of SHSP strategies.
- » Meets regularly to track progress and develop performance measures.
- » Provides quarterly progress reports and recommendations to the ATS Steering Committee and to CDOT's Transportation Safety Sponsor Committee.

### **Organizational Safety Culture: Transportation Safety Sponsor Committee**

The Transportation Safety Sponsor Committee, led by CDOT's Chief Engineer, is a committee of CDOT leaders committed to improving traffic safety and fostering safety culture at the organizational level. It is composed of CDOT executive leaders such as the Deputy Director, Chief of Staff, Regional Transportation Directors, and Division Directors for Maintenance and Operations, Communications, and the Office of Transportation Safety. Staff from various CDOT divisions involved in safety give regular updates and receive guidance from the committee.

Statewide Safety Champion:

- » Manages SHSP coordination and evaluation.
- » Serves as the communication link between the ATS Steering Committee and Emphasis Area teams.
- » Oversees safety events and provides analytical support.
- » Reviews progress and coordinates SHSP updates.

Plan Signatories:

- » Promote the pillars identified in the SHSP Partner Pledge: Shared Ownership, Mutual Agency, and Accountability.
- » Lead strategies and action steps relevant to each agency or organization.
- » Engage in events, meetings, and initiatives that support the SHSP's success.
- » Provide resources and expertise to advance the SHSP's implementation.
- » Advocate for a culture of safety by promoting the SHSP whenever possible.

## Safety is Proactive

Implementing a proactive approach to safety requires forward-thinking strategies that anticipate and address safety risks before they result in crashes. The proactive approach includes continuous monitoring of data trends to identify and address emerging safety challenges promptly, rather than waiting for the next five-year plan cycle. Additionally, the SHSP emphasizes risk-based applications like the early identification of high-risk areas and targeted enforcement campaigns to mitigate specific behaviors such as distracted, speeding, or impaired driving. By creating a dynamic system that quickly responds to new data and evolving conditions, Colorado commits to a safety culture where proactive measures continuously improve road safety and prevent crashes from becoming more severe.

## Redundancy is Crucial

As demonstrated throughout the SHSP, Focus Areas often have overlapping safety concerns and strategies. While overlapping strategies may feel redundant, this redundancy is crucial for maintaining a safe transportation system. If one part fails, other parts of the system can prevent fatalities and serious injuries and fulfill the SHSP Vision. This redundancy is present among SHSP strategies and the bodies responsible for implementation. This principle is best illustrated using the “Swiss cheese model” where elements of the roadway network and contributing factors are aligned in layers. When a gap or failure occurs, the next layer of the system intervenes to prevent the failure from leading to a fatality or serious injury.

In the Swiss cheese model, the risk of a crash occurring can be modeled as a series of slices of Swiss cheese. If each slice of cheese represents a layer of defense (for example, wearing a seat belt, driving defensively, a well-maintained vehicle), then each hole represents a weakness in the system. A fatal or serious injury crash occurs when a hole in each slice momentarily aligns, permitting a system failure to occur. More layers of protection (redundancy) reduces the likelihood of a fatal or serious injury crash.

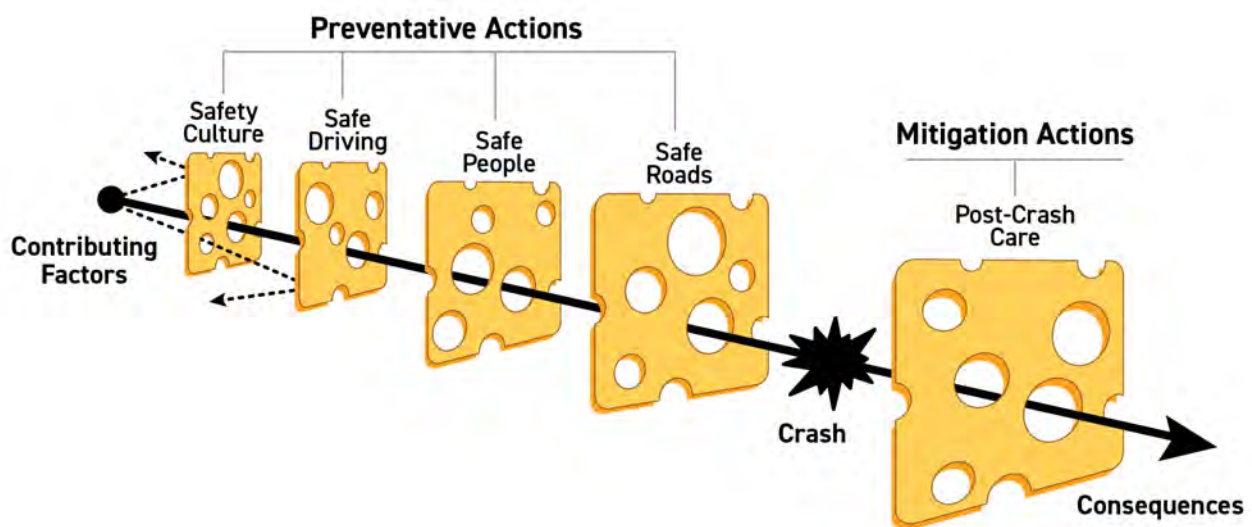


Figure 10-4: Safe System Swiss Cheese Graphic

# Performance Measures and Evaluation

The SHSP aims to reduce fatalities and serious injuries on Colorado’s roadways. It sets performance targets for 2025-2029, relying on lead agencies to implement strategies and allocate resources effectively. The SHSP performance measures align with the 10-year Statewide Plan and Policy Directive 14, which identifies a goal of a 5% reduction in fatalities and serious injuries on a year-over-year basis.

The same performance targets apply for all fatalities and serious injuries, including VRUs. Each Focus Area in the plan will be monitored to identify progress and areas needing additional attention.

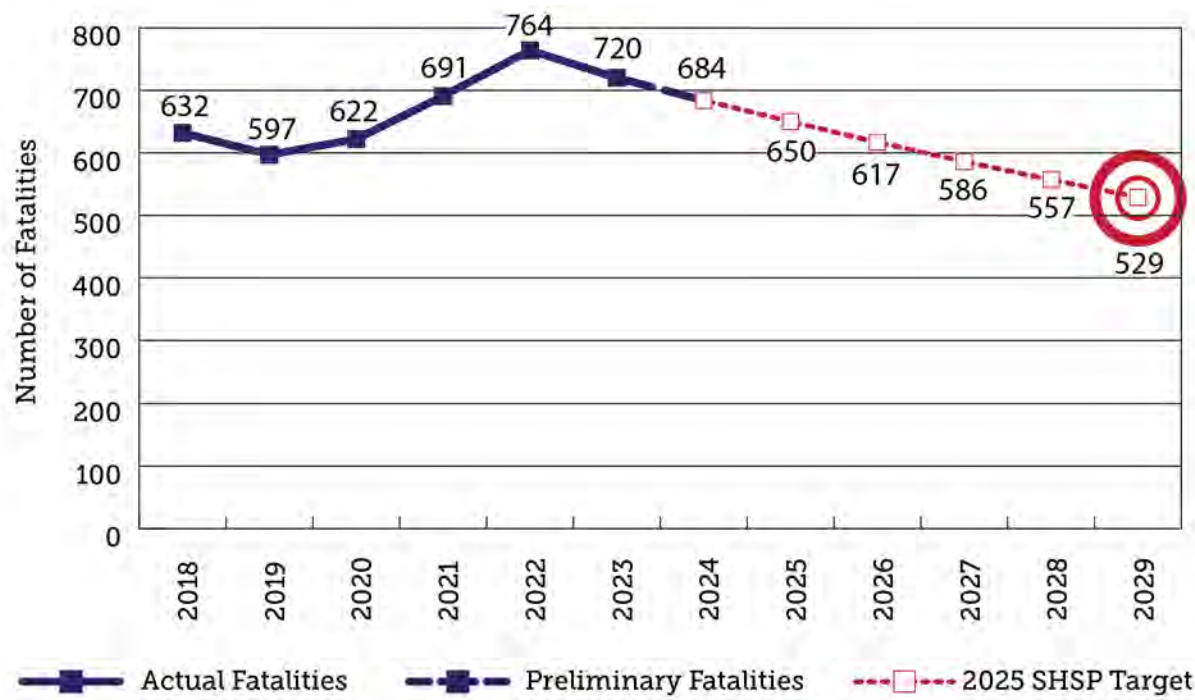


Figure 10-5: Fatalities Performance Measure Goal

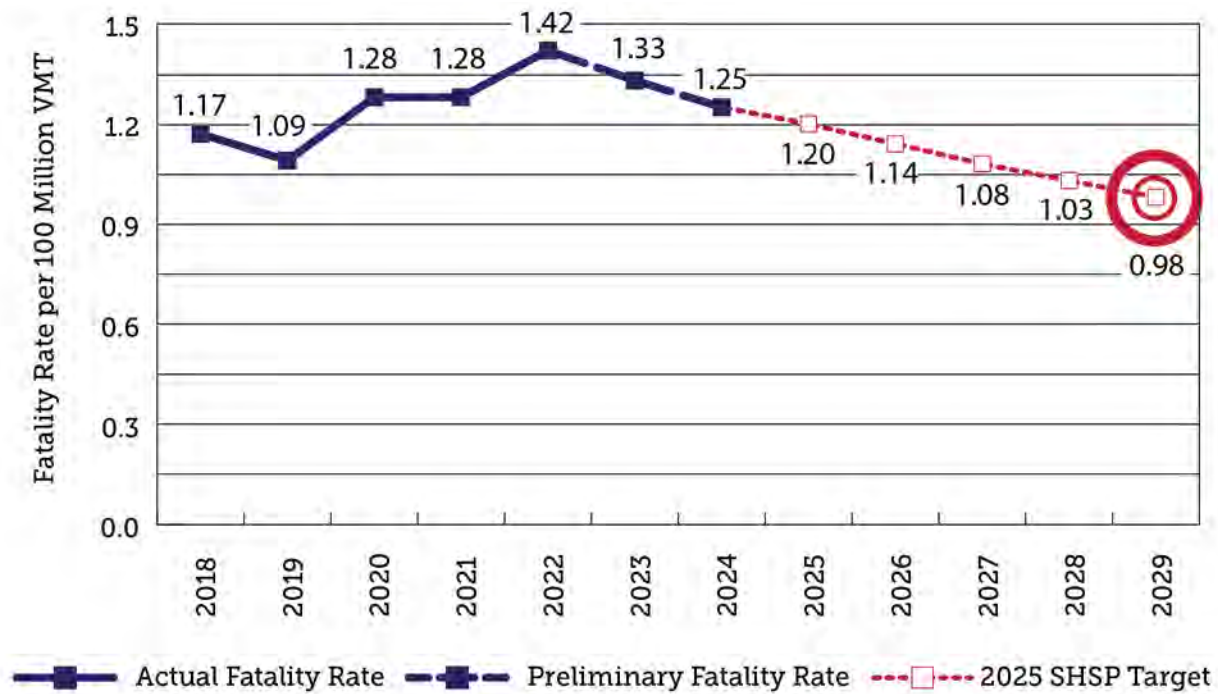


Figure 10-6: Fatality Rate Performance Measure Goal

Note: 2023/2024 VMT Miles not finalized, projected .06% growth rate used.

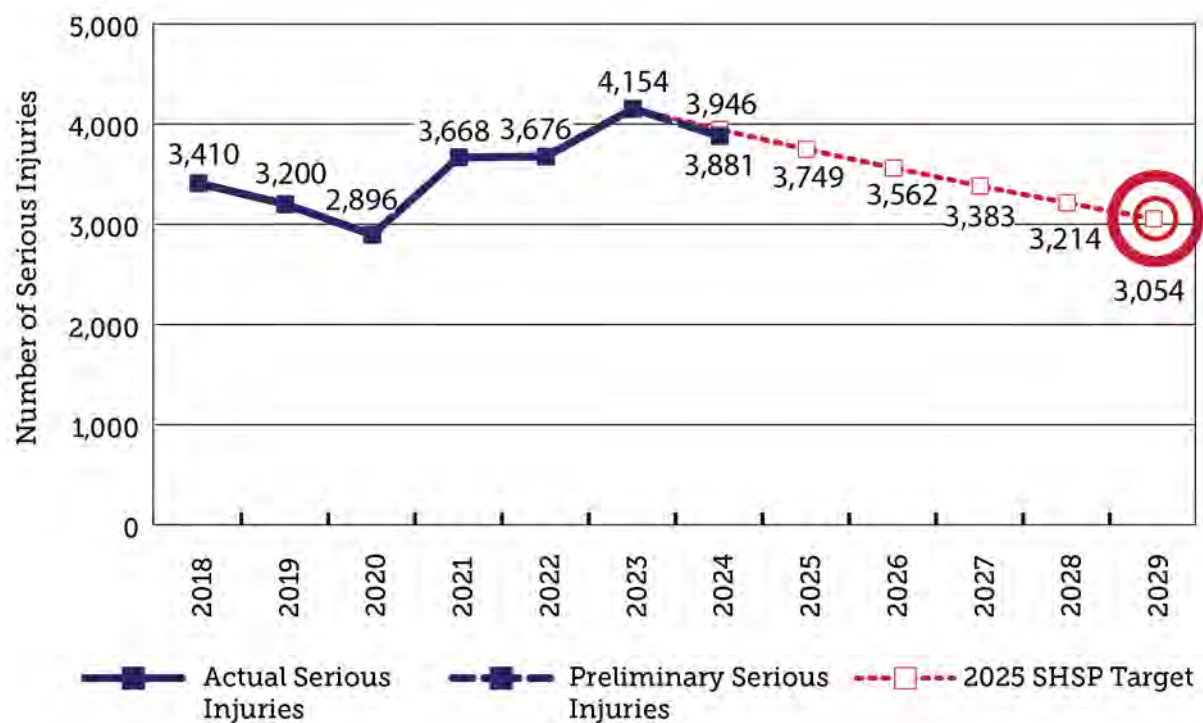


Figure 10-7: Serious Injuries Performance Measure Goal



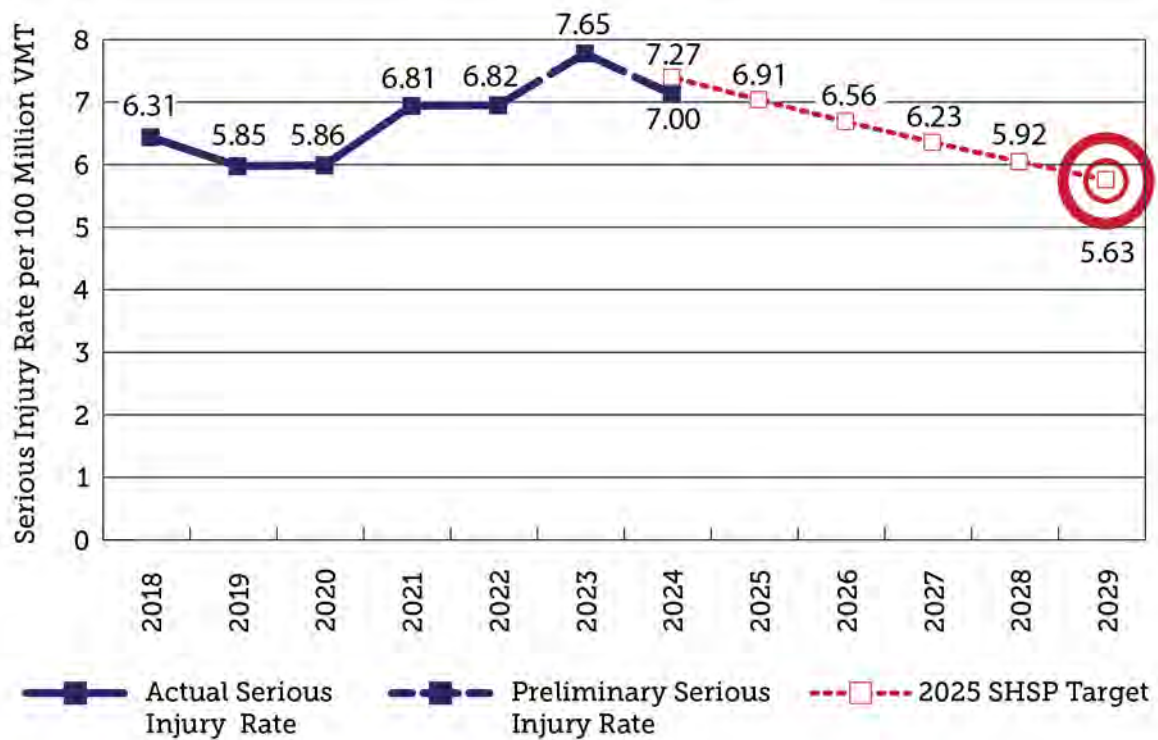


Figure 10-8: Serious Injury Rate Performance Measure Goal

Note: 2023 VMT Miles not finalized, projected .06% growth rate used.

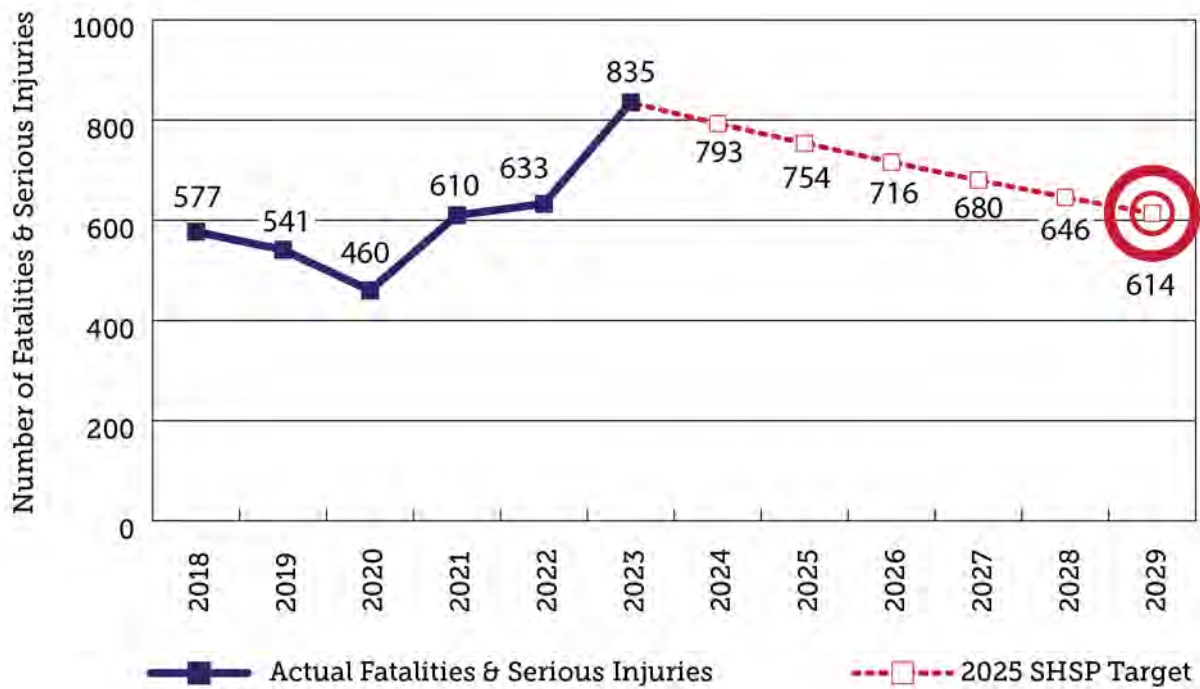


Figure 10-9: Pedestrian and Bicyclist Fatalities and Serious Injuries Performance Measure Goal

## Alignment with Other Performance Measures (WIGs, PD-14, HSP)

Several statewide plans align with the SHSP, reinforcing shared transportation safety goals.

- » **Wildly Important Goals (WIGs):** The Governor of Colorado requires all state departments to establish WIGs. Colorado's WIG for transportation safety aims to reduce traffic fatalities and serious injuries by 22.5% from 2023 to 2027. The WIGs are more aggressive and follow a shorter timeline to coincide with the Governor's term. In contrast, the SHSP has a longer term vision, extending through 2029.
- » **Policy Directive 14.0 (PD-14):** PD-14 establishes the framework for developing and implementing Colorado's 2050 Statewide Transportation Plan and 10-year plan by establishing performance goals and targets to help guide strategic transportation investments, advance transportation safety, fix our roads, and sustainably increase transportation choice.
- » **Triennial Highway Safety Plan (3HSP):** Developed by CDOT's Highway Safety Office, the 3HSP establishes hundreds of performance measures, many of which align with the SHSP. Ensuring consistency between the next major 3HSP update and the SHSP will help unify statewide safety goals.
- » **Colorado Highway Safety Improvement Program (HSIP) Manual:** Developed by CDOT's Traffic Safety Engineering Branch, the HSIP Manual identifies what HSIP is, how to apply for HSIP funds, and how projects will be prioritized to receive HSIP funding. Projects that apply for HSIP funding will be prioritized based on their alignments with the strategies identified in the SHSP and actions identified in the accompanying action plan. This plan and the HSIP Manual work hand in hand to assist agencies in applying for HSIP funds for projects that align with SHSP.





# 2025 SHSP Appendices





For more information:

Appendix A: Plan Alignment Exhibit

Appendix B: Strategies Table

Appendix C: Data Sources

Appendix D: Workshop Summaries

Appendix E: Virtual Engagement







# 2025

## Strategic Highway Safety Plan



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Colorado Division**

May 29, 2025

12300 W. Dakota Ave., Ste. 180  
Lakewood, Colorado 80228  
720-963-3000

Shoshana Lew  
Executive Director  
Colorado Department of Transportation  
2829 W. Howard Place  
Denver, CO 80204

**Subject: Colorado Strategic Highway Safety Plan (SHSP) 2025 Update**

Dear Ms. Lew:

The Federal Highway Administration (FHWA) Colorado Division Office received the 2025 Colorado Strategic Highway Safety Plan (SHSP). We are pleased to approve the process through which the updated SHSP was developed. Based on our Division's involvement in the development of the SHSP and the review of the final Plan, we are confident that Colorado has followed a process that is consistent with the requirements as outlined below. Ou

- Conferred with various multi-disciplinary Federal, State, local and Tribal safety stakeholders, considered their input prior to decision making, and routinely informed them about actions taken regarding STSP update development.
- Reached out and provided the opportunity for consultation to a variety of statewide safety stakeholders in the State.
- Used the best available safety data and safety analysis tools to identify critical highway safety issues and determine strategies for safety improvements on all public roads.
- Included emphasis areas and strategies based on data with the greatest potential to reduce fatalities and serious injuries.
- Gave priority to strategies that significantly reduce fatalities and serious injuries in the SHSP emphasis areas and considered systemic improvements and low-cost safety countermeasures.
- Evaluated current SHSP emphasis areas, goals, strategies and actions to determine their effectiveness and incorporate the lessons learned in the STSP update development process.
- Included STSP evaluation process and mechanisms for regularly tracking implementation and monitoring progress.
- Set goals and measurable objectives to track and monitor the status of STSP implementation efforts and monitor progress in each of the established STSP emphasis areas.
- Considered highway safety elements of engineering, education, enforcement, and emergency medical services (the 4 E's) and included strategies to address the State's emphasis areas.
- Coordinated with other on-going statewide planning processes and considered how the STSP emphasis areas compare with the priorities of the other plans or processes.
- Included the State definition of High Risk Rural Roads (HRRR).
- Signed by the Governor or his representative for the State of Colorado.

We look forward to receiving the Action Plan this fall with more details about CDOT's strategies to implement the Plan.

If you have any questions, please contact Charlie Hanf at [Charles.hanf@dot.gov](mailto:Charles.hanf@dot.gov).

Sincerely,

**JOHN MARTIN  
CATER** Digitally signed by JOHN  
MARTIN CATER  
Date: 2025.05.29  
15:56:25 -06'00'

John M. Cater, P.E  
Division Administrator

**Attachments:**

2025 Strategic Highway Safety Plan (SHSP)

**cc:**

Charlie Hanf, FHWA Acting Safety Program Manager  
Keith Stefanik, CDOT Chief Engineer  
San Lee, CDOT Traffic Safety & Engineering Services  
Melodie Clayton, Traffic Safety Performance Manager  
Gina Espinosa-Salcedo, NHTSA Regional Director



# CDOT Executive Director Letter

Dear Fellow Coloradans and Visitors,

I am pleased to present the 2025 Colorado Strategic Highway Safety Plan (SHSP). This plan represents a comprehensive and collaborative effort among public agencies, private sector organizations, and advocacy groups dedicated to transportation safety across the state. Through data-driven analysis, cooperative discussions, and the expertise of diverse stakeholders, the SHSP identifies actionable strategies and achievable goals to reduce fatalities and serious injuries throughout Colorado's transportation system.

**Colorado's transportation safety efforts are showing positive results. After a peak of 764 traffic fatalities in 2022, we have seen a decline over each of the past two years.**

In 2024, there were 687 fatalities—a 10% reduction from the 2022 peak. Consistent with the 10-year Statewide Plan and Policy Directive 14, the SHSP identifies a goal of a five percent annual reduction in fatalities and serious injury crashes.

Colorado is committed to providing the best multi-modal transportation system that most effectively and safely moves people, goods, and information. Every agency and jurisdiction plays a crucial role in improving transportation safety, contributing through policy, planning, funding, design, construction, operations, maintenance, and post-crash care to ensure the well-being of all travelers.

The SHSP emphasizes the implementation of proven safety countermeasures, targeted and effective strategy deployment, integration of local agency safety planning, and adoption of innovative technologies that have been demonstrated to reduce fatalities and serious injuries.

I extend my gratitude to the hundreds of stakeholders across Colorado who contributed to the development of this SHSP. Achieving our vision of zero deaths and serious injuries requires a collective commitment, including yours as a user of the transportation system. Please join CDOT and our safety partners in supporting and implementing the SHSP to prevent crashes and save lives on our roadways.

Sincerely,

**Sally Chafee**

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Date: 2025.05.19 13:43:02  
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Sally Chafee, Acting Executive Director  
For: Shoshana Lew, Executive Director  
Colorado Department of Transportation

# Partner Pledge & Commitment to Safety

The 2025 Colorado Strategic Highway Safety Plan (SHSP) represents a unified commitment to eliminate traffic fatalities and serious injuries so that every person—regardless of how they travel—can reach their destination safely. Developed through a data-driven, collaborative process, this plan reflects the dedication of transportation safety professionals and stakeholders across Colorado.

As committed safety partners, we stand in support of the SHSP and Colorado's broader transportation safety initiatives. We believe in a future where zero deaths and serious injuries regardless of travel mode is a reality. Achieving this future requires a steadfast commitment to growing Colorado's transportation safety culture within organizations and among the public. Foundational to this effort are the following strategic pillars of partnership:

- » **Shared ownership** - responsibility for improving transportation safety must be shared.
- » **Mutual agency** - each agency has autonomy and freedom to pursue mutual transportation safety objectives as befits their situation.
- » **Accountability** - the problem is urgent, and therefore transparency and accountability are necessary.

Collectively, we pledge to do our part to reach the SHSP's goal of reducing fatalities and serious injuries by five percent per year or 22.6% over the five-year life of the plan. We commit to:

- » Lead strategies and action steps relevant to our agency or organization;
- » Engage in events, meetings, and initiatives that support the SHSP's success such as safety-related committee meetings, safety summits, and other public and internal initiatives that are focused on improving transportation safety;
- » Provide resources and expertise to advance the SHSP's implementation; and
- » Advocate for a culture of safety by promoting the SHSP whenever possible.

Together, as the leadership of the Colorado Department of Transportation, Colorado State Patrol, Colorado Department of Revenue, Colorado Department of Public Health and Environment, the Federal Highway Administration, and the National Highway Traffic Safety Administration, we reaffirm our dedication to a safer Colorado. By signing below, we commit to this vision and the actions necessary to make it a reality.

**Sally Chafee**

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Date: 2025.05.19 13:43:18  
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Sally Chafee, Acting Executive Director  
For: Shoshana Lew, Executive Director  
Colorado Department of Transportation



Matthew C Packard  
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Colonel Matthew Packard, Chief  
Colorado State Patrol

**Meghan Tanis**

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Meghan Tanis, Deputy Executive Director  
For: Heidi Humphreys, Executive Director  
Colorado Department of Revenue

**Jill Hunsaker Ryan**

Digitally signed by Jill Hunsaker  
Ryan  
Date: 2025.05.23 16:53:53 -06'00'

Jill Hunsaker Ryan, MPH, Executive Director  
Colorado Department of Public Health and Environment

# Plan Acknowledgment

The 2025 Colorado Strategic Highway Safety Plan (SHSP) is a result of the collaboration of safety stakeholders from across the state. Partners representing diverse organizations and agencies developed strategies and supporting actions to reduce crashes and the resulting fatalities and serious injuries. **Thank you to the representatives from the following agencies for their support in the 2025 SHSP development and for their continued support during implementation over the next five years.**

- » Adams County
- » American Automobile Association (AAA) Colorado
- » Archuleta County
- » Bicycle Colorado
- » Bike Together
- » Boulder County
- » CDOT Highway Safety Office
- » CDL Mountain Training
- » Central Front Range Transportation Planning Region
- » City of Aspen
- » City of Aurora
- » City of Cortez
- » City of Dacono
- » City of Denver
- » City of Fort Collins
- » City of Golden
- » City of Greeley
- » City of Lakewood
- » City of Loveland
- » City of Pueblo
- » City of Thornton
- » Colorado Behavioral Health Administration
- » Colorado Commission of Indian Affairs
- » Colorado Contractors Association
- » Colorado Counties Inc.
- » Colorado Department of Education
- » Colorado Department of Human Services
- » Colorado Department of Motor Vehicles
- » Colorado Department of Public Health and Environment
- » Colorado Department of Revenue
- » Colorado Department of Transportation
- » Colorado Governor's Office
- » Colorado Judicial Branch
- » Colorado Local Technical Assistance Program
- » Colorado Municipal League
- » Colorado Motor Carriers Association
- » Colorado State Patrol
- » County Sheriff Association
- » Colorado Task Force on Drunk and Impaired Driving (CTFDID)
- » Colorado Young Drivers Alliance
- » County Sheriffs of Colorado
- » Denver Regional Council of Governments
- » Denver Streets Partnership
- » Douglas County
- » Eagle County
- » El Paso County
- » East Central Council of Governments
- » Eastern Transportation Planning Region
- » Federal Highway Administration
- » Federal Motor Carrier Safety Administration

- » Grand Valley Transportation Planning Region
- » Gunnison Valley Transportation Planning Region
- » Health Promotion Partner
- » Intermountain Transportation Planning Region
- » La Plata County
- » La Plata County Sheriff
- » Larimer County
- » Mesa County
- » Mothers Against Drunk Driving
- » Motorcycle Operator Safety Advisory Board
- » Montezuma County
- » National Highway Traffic Safety Administration
- » National Roadway Safety Strategy
- » National Workzone Safety
- » North Front Range Metropolitan Planning Organization
- » Northeast Colorado Council of Governments
- » Northwest Transportation Planning Region
- » Pikes Peak Area Council of Governments
- » Pueblo Area Council of Governments
- » Pitkin County
- » Region 10 League for Economic Assistance and Planning
- » Safe Routes to School
- » Safety Circuit Rider Program
- » San Luis Valley Development Resources Group
- » San Luis Valley Transportation Planning Region
- » School Community Youth Collaborative
- » Share the Road
- » South Central Council of Governments
- » Southeast Colorado Enterprise Development
- » Southern Colorado Institute of Transportation Technology
- » Southern Ute Indian Tribe
- » Southwest Colorado Council of Governments
- » Statewide Traffic Records Advisory Committee
- » Town of Fountain
- » Town of Minturn
- » Transportation Commission of Colorado
- » University of Colorado Health
- » Upper Front Range Transportation Planning Region
- » Vision Zero Boulder
- » Vision Zero Denver
- » Weld County
- » Western Colorado Contractors Association

Thank  
You



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# List of Acronyms

|               |                                                                    |               |                                                          |
|---------------|--------------------------------------------------------------------|---------------|----------------------------------------------------------|
| <b>AAA</b>    | American Automobile Association                                    | <b>LEP</b>    | Limited English Proficiency                              |
| <b>AASHTO</b> | American Association of State Highway and Transportation Officials | <b>LRTP</b>   | Long Range Transportation Plan                           |
| <b>ATS</b>    | Advancing Transportation Safety                                    | <b>LOSS</b>   | Level of Service of Safety                               |
| <b>BAC</b>    | Blood Alcohol Concentration                                        | <b>LTAP</b>   | Local Technical Assistance Program                       |
| <b>BIPOC</b>  | Black, Indigenous and Persons of Color                             | <b>MADD</b>   | Mothers Against Drunk Driving                            |
| <b>CDOT</b>   | Colorado Department of Transportation                              | <b>NCDOT</b>  | North Carolina Department of Transportation              |
| <b>CDPHE</b>  | Colorado Department of Public Health and Environment               | <b>NHTSA</b>  | National Highway Traffic Safety Administration           |
| <b>CMV</b>    | Commercial Motor Vehicles                                          | <b>PBCAT</b>  | Pedestrian and Bicycle Crash Analysis Tool               |
| <b>CPS</b>    | Child Passenger Safety                                             | <b>PD-14</b>  | Policy Directive 14                                      |
| <b>CSP</b>    | Colorado State Patrol                                              | <b>PIARC</b>  | World Road Association                                   |
| <b>CVSP</b>   | Commercial Vehicle Safety Plan                                     | <b>RPO</b>    | Regional Planning Organization                           |
| <b>DMV</b>    | Department of Motor Vehicles                                       | <b>RSA</b>    | Road Safety Audit                                        |
| <b>DOR</b>    | Department of Revenue                                              | <b>SADD</b>   | Students Against Drunk Driving                           |
| <b>DUI</b>    | Driving Under the Influence                                        | <b>SEMTAC</b> | State Emergency Medical Trauma Services Advisory Council |
| <b>EMS</b>    | Emergency Medical Services                                         | <b>SHSP</b>   | Strategic Highway Safety Plan                            |
| <b>ERSI</b>   | Emergency Responder Safety Institute                               | <b>SME</b>    | Subject Matter Expert                                    |
| <b>FARS</b>   | Fatality Analysis Reporting System                                 | <b>SSA</b>    | Safe System Approach                                     |
| <b>FIRST</b>  | Fatality and Injury Reporting System Tool                          | <b>STSP</b>   | Strategic Transportation Safety Plan (2020)              |
| <b>FHWA</b>   | Federal Highway Administration                                     | <b>TDI</b>    | Transportation Disadvantaged Index                       |
| <b>GDL</b>    | Graduated Driver Licensing                                         | <b>TIM</b>    | Traffic Incident Management                              |
| <b>GIS</b>    | Geographic Information System                                      | <b>VMT</b>    | Vehicle Miles Traveled                                   |
| <b>HRRR</b>   | High Risk Rural Roads                                              | <b>VRU</b>    | Vulnerable Road User                                     |
| <b>HSIP</b>   | Highway Safety Improvement Program                                 | <b>WIGS</b>   | Wildly Important Goals                                   |
| <b>3HSP</b>   | Triennial Highway Safety Plan                                      |               |                                                          |
| <b>IIJA</b>   | Infrastructure Investment and Jobs Act                             |               |                                                          |





# Executive Summary

The 2025 Strategic Highway Safety Plan (SHSP) represents a comprehensive, data-driven approach to enhancing roadway safety in Colorado, with the goal of reducing fatalities and serious injuries statewide. Developed collaboratively by key state agencies and other safety stakeholders, the SHSP reflects the shared responsibility of all Coloradans to improve safety of the transportation system for all users.

Stakeholder engagement played a crucial role in shaping the SHSP. From the Steering Committee and Subject Matter Experts to the hundreds of workshop participants and online contributors, diverse voices informed the plan's development. Every piece of feedback—whether gathered through meetings, workshops, emails, or online tools—helped refine strategies, enhance data analysis, and identify additional stakeholders to engage. The SHSP reflects this collective effort, resulting in a comprehensive and inclusive approach to improve roadway safety in Colorado. By identifying 25 Focus Areas across five Emphasis Areas that also correspond with the Safe System Approach—the plan sets a clear path toward achieving the Vision for Colorado's future: **Zero deaths and serious injuries so all people using any transportation mode arrive at their destination safely.**

## Emphasis Areas



Safety  
Culture



Safe  
Driving



Safe  
People



Safe  
Roads



Post-Crash  
Care

Focus Areas are contexts or behaviors associated with fatal and serious injury crashes and are categorized based on their contribution to the number of fatalities and serious injuries, recent observed trends (improving, staying about the same, or worsening), or the relation to safety culture. These categories inform related strategies which are specific methods to improve safety as well as the implementation of actions over the next five years. The Focus Area categories are:

- » **Safety Culture** grows shared values and beliefs supportive of a safer transportation system,
- » **High-Impact** targets the top contributing factors to fatalities and serious injuries,
- » **Emerging and Monitoring** areas have increasing fatality and serious injury trends, and
- » **Double Down on Success** builds on the success of existing programs/policies.



Figure ES-1: Focus Area Categorization



The SHSP aims to achieve a five percent year-over-year reduction in fatalities and serious injuries. Achieving these targets requires a coordinated effort across multiple agencies, a focus on implementing proven safety countermeasures, and an ongoing commitment to cultivating a statewide safety culture.

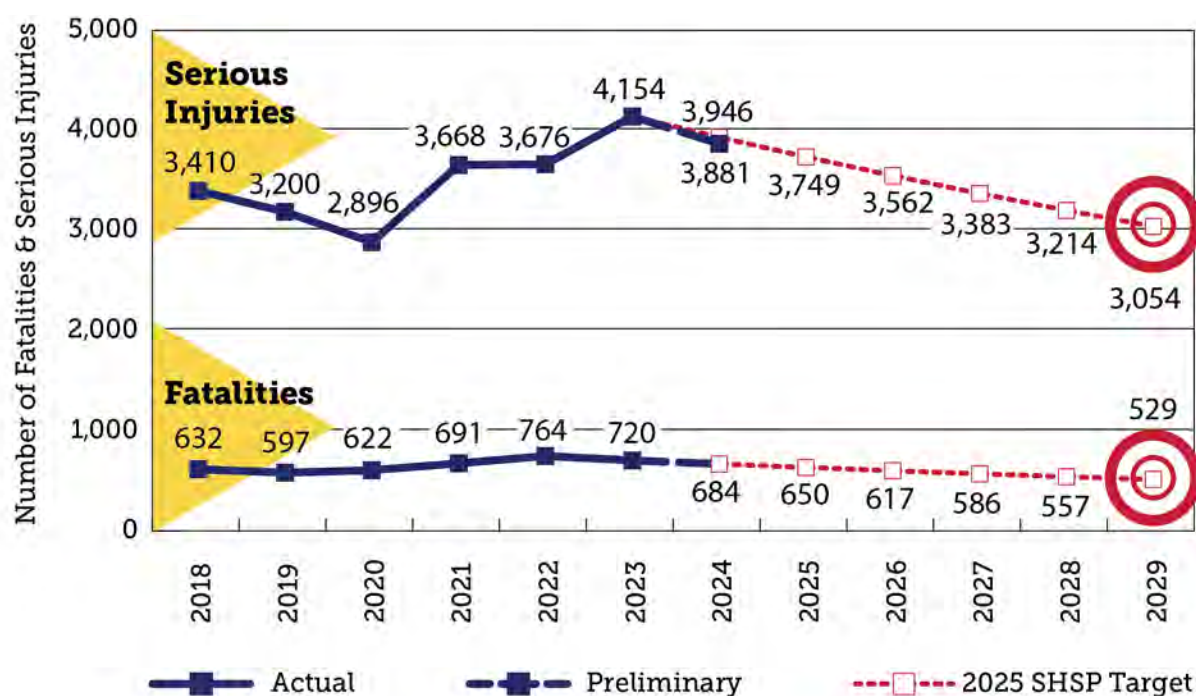


Figure ES-2: Traffic Fatalities and Serious Injuries with Future Targets (5% Per Year Reduction)

In addition to the implementation of the strategies identified in this SHSP, the Advancing Transportation Safety Initiative (ATS)—a collaboration of state and local agency safety advocates led by CDOT’s Safety Champion—will continue to seek out innovative ways to achieve the state’s goal of reducing traffic fatalities and serious injuries. Through collaboration, strategic investments, and focused implementation, Colorado will continue to make strides toward achieving zero deaths and serious injuries for all transportation system users.





# Chapter 1: Introduction

Colorado updates its SHSP every five years to align with changing trends and best practices and to remain eligible for Federal Highway Safety Improvement Program (HSIP) funding (a core federal-aid program to reduce fatalities and serious injuries on all public roads, including non-state and tribal roads). This chapter introduces the plan's Vision and Mission, organization, development, goals, implementation, and alignment with other plans.

## SHSP Vision and Mission

### Vision

The future of Colorado is zero deaths and serious injuries so all people using any transportation mode arrive at their destination safely.

### Mission

Colorado agencies and partners will cooperatively implement strategies that eliminate transportation system fatalities and serious injuries.

The Vision and Mission for Colorado's Strategic Highway Safety Plan (SHSP) were established by the participants of Colorado's Advancing Transportation Safety (ATS) initiative (a statewide collaboration born from the state's previous SHSP) with support and approval by the SHSP's Steering Committee, which includes representatives from:

- » Colorado Department of Transportation (CDOT).
- » Colorado State Patrol.
- » Colorado Department of Revenue.
- » Colorado Department of Public Health and Environment.
- » National Highway Traffic Safety Administration.
- » Federal Highway Administration.
- » Additional state agencies, advocacy groups, and special interest organizations.

The plan's Vision and Mission align with Vision Zero, a multinational effort aiming to eliminate fatalities and serious injuries on transportation systems. The Vision and Mission recognize that numbers of fatalities and serious injuries are not just statistics—they reflect the lives of real people forever changed by crashes. Even one life lost or altered is too many.



# SHSP - Bridging Vision & Mission With Action

An SHSP is defined by the Federal Highway Administration (FHWA) as a statewide-coordinated safety plan that provides a comprehensive framework for reducing fatalities and serious injuries on public roads. In essence, it defines the strategies that prioritize and focus actions to achieve the Vision and Mission.

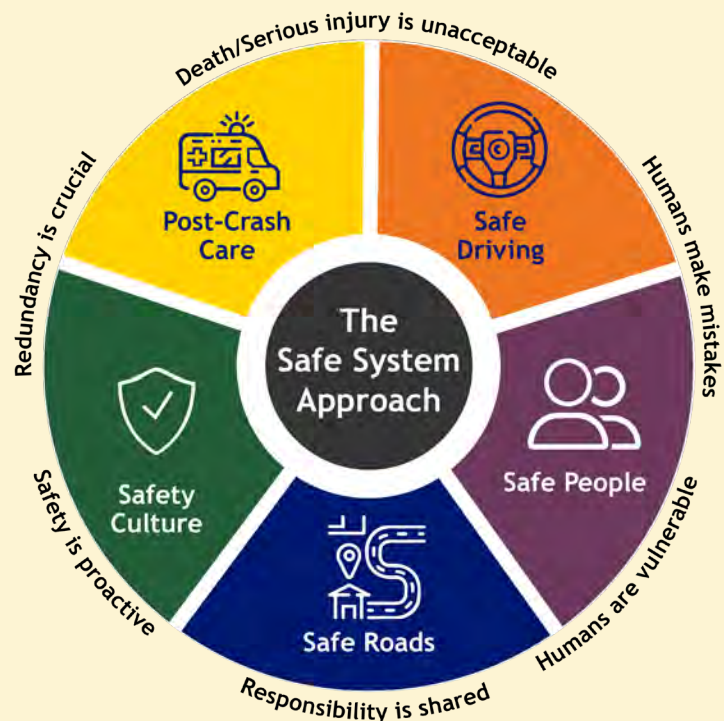
Colorado's SHSP is a data-driven, five-year plan that identifies multidisciplinary strategies (also referred to as countermeasures) to address safety priorities identified by reviewing data and gathering input from key stakeholders. The organization of the SHSP reflects Colorado's adoption of the Safe System Approach which includes five Emphasis Areas (Safety Culture, Safe Driving, Safe People, Safe Roads, and Post-Crash Care) and six principles:

- » Death and Serious Injuries are Unacceptable.
- » Humans Make Mistakes.
- » Humans Are Vulnerable.
- » Responsibility is Shared.
- » Safety is Proactive.
- » Redundancy is Crucial.

## The Five Emphasis Areas and Six Principles of the Safe System Approach

The Safe System Approach (SSA) is recognized nationally and internationally as an effective way to reduce deaths and serious injuries in transportation systems by addressing both human mistakes and human vulnerability. It promotes the design and implementation of transportation networks that prioritize redundant layers of protection for roadway users.

SSA's holistic and comprehensive nature encourages safety professionals to expand their influence beyond roadway design and beyond traditional transportation agencies. Additionally, the SSA prioritizes serious and fatal injuries (as opposed to all crashes), encouraging professionals to target severity reduction as a mechanism to reduce fatalities and serious injuries.



The SHSP follows the FHWA process model of planning, implementation, reporting, and evaluation (Figure 1-1). The remainder of this section describes key activities that shaped the 2025 SHSP.



Figure 1-1: FHWA Process Model

Figure 1-2 summarizes the SHSP planning process. It began by gathering agreement among key leaders on the process and desired outcomes. This was followed by stakeholder engagement with local, regional, state, federal, non-profit, and public- and private-sector organizations, using a robust and inclusive approach. These stakeholders, along with subject matter experts, aligned around the Vision and Mission and provided important insights to data analysis and community relevance, identifying and refining strategies, and action planning. Stakeholders were identified through a robust process further described in Chapter 3 Stakeholder Engagement.

Data collection and analysis informed the SHSP. The safety improvement strategies and actions identified in the plan are the direct result of data analysis, including observed trends in the crash data, the proven effectiveness of safety countermeasures, and self-reported behaviors gained through annual surveys. Chapter 2 Data Analysis & Findings further details the data collection and analysis.

FHWA requires additional analyses focused on three high-priority contexts: High-Risk Rural Roads (HRRR), Older Drivers and Pedestrians, and Vulnerable Road Users (VRUs)(see callout: FHWA Special Contexts for more details).



Figure 1-2: Colorado SHSP Development Process



Data collection and analysis coupled with stakeholder input supported the identification of Emphasis Areas (Chapter 4) and the selection of strategies (Chapters 5 - 9).

Performance measures were established based on the previous steps. The SHSP establishes goals to reduce fatalities and serious injuries by 5% year-over-year resulting in a 22.6% reduction from 2024 to 2029. These goals align with CDOT's Policy Directive 14 (a 10-year Statewide Plan). Details of these goals are discussed throughout Chapters 5 through 9.

Achieving these goals requires strong implementation and evaluation. The SHSP describes steps for implementation, reporting, and evaluation. The Advancing Transportation Safety (ATS) initiative is responsible for developing annual Action Plans and facilitating implementation by enumerating action steps with timelines, assigning champions, and creating accountability through regular reporting. Access to timely data, such as CDOT's data dashboards allows stakeholders to monitor and evaluate Colorado's progress on meeting the SHSP's five percent year-over-year reduction goal. Stakeholder reporting and annual reports are crucial for assessing progress toward reducing roadway fatalities and serious injuries. Implementation is discussed in Chapter 10 Implementation.

The Advancing Transportation Safety (ATS) initiative, developed under the 2020 Strategic Transportation Safety Plan (STSP), builds on Colorado's 2015 Moving Toward Zero Deaths effort. Recognizing the need for a unified safety coalition, ATS is the result of implementing STSP Strategy B: Build a Safety Coalition- advocating for safety, fostering a strong safety culture, and reducing fatalities and serious injuries across Colorado. The ATS initiative brings together safety partners across the state to implement strategies adopted through the SHSP. These partners are organized into working groups based on Emphasis Areas and develop, champion, and monitor annual Action Plans.

## FHWA Special Contexts (Special Rules)

Per the requirements of the Highway Safety Improvement Program (HSIP), updates to a state's SHSP must address three specific topics (i.e., special rules) aimed at areas of desired safety improvement. The special rules are assigned to states based on observed crash history and are specific to each state. The Infrastructure Investment and Jobs Act (IIJA), signed on November 15, 2021, introduced a new Vulnerable Road User (VRU) Special Rule under the HSIP while maintaining the existing rules for High-Risk Rural Roads (HRRR) and Older Drivers and Pedestrians. The VRU and Older Drivers and Pedestrians HSIP special rules apply to Colorado. As of 2025, the HRRR special rule does not apply to Colorado. The VRU Special Rule strengthens the focus on non-motorist safety and requires states to complete VRU safety assessments as part of the SHSP update process.



**High Risk Rural Roads (HRRR)** High Risk Rural Roads (HRRR) are defined in Title 23 of the United States Code as “any roadway functionally classified as a rural major or minor collector or a rural local road with significant safety risks, as defined by a State in accordance with an updated State Strategic Highway Safety Plan (SHSP).” Each state is required to define significant safety risks.

In Colorado, HRRR are defined as:

Any roadway functionally classified as a rural major or minor collector or a rural local road experiencing severe (serious bodily injury or fatality) crash rates that exceed the average for similar facilities as determined by a Level of Service of Safety (LOSS) (for on-system roadways) or a crash rate analysis (for off-system roadways). On-system roadways are under the jurisdiction of the State of Colorado whereas local agencies (e.g., Cities, Towns, Counties) have jurisdiction over off-system roadways.

Per FHWA requirements, when a state qualifies for the HRRR special rule, the state must obligate in the following fiscal year an amount equal to at least 200% of the amount of funds the State received for fiscal year 2009 for high risk rural roads. For Colorado, that equates to approximately \$2.8M per year. As of 2025, Colorado is not required to set aside these funds; however, whether the special rule applies is reviewed annually to determine if Colorado meets the threshold of the special rule.



**Older Drivers and Pedestrians** The Older Drivers and Pedestrians Special Rule requires Colorado to include strategies in the SHSP to address the rising rate of fatalities and serious injuries among older road users (age 65 and older). The state must analyze whether increases are due to driver or pedestrian incidents—or both—to guide targeted countermeasures. As detailed in Chapter 7 Safe People, fatality and serious injury increases have occurred among both older drivers and pedestrians, necessitating that the SHSP incorporate treatments from the 2014 FHWA Handbook for Designing Roadways for the Aging Population.



**Vulnerable Road Users** Under the VRU Special Rule, Colorado must allocate at least 15% of its HSIP funding to projects improving safety of VRUs. All highway safety improvement projects, including those implemented under the VRU Special Rule, must be on a public road consistent with Colorado’s SHSP and correct or improve a hazardous road location or feature, or address a highway safety problem. Therefore, Colorado’s SHSP addresses fatalities and serious injuries among pedestrians and bicyclists. Furthermore, Colorado uses a data-driven approach to address safety problems and opportunities on all public roads and for all road users as part of the SHSP.

In 2023, Colorado completed a Vulnerable Road Users (VRU) Safety Assessment that outlined strategies and actions aimed at improving safety for those most vulnerable to serious injury or fatality in the event of a crash. The results of the 2023 VRU Safety Assessment informed the VRU Assessment included in this SHSP. Moving forward, the VRU Safety Assessment is now a part of the SHSP process and will be updated every five years. The Safe People Emphasis Area contains the assessment and relevant strategies, described in Chapter 7.

## Emphasis Areas and Focus Areas

Colorado's Emphasis Areas are based on the Safe System Approach and include Safety Culture, Safe Driving, Safe People, Safe Roads, and Post-Crash Care. Within each of these Emphasis Areas, there are Focus Areas that describe particular contexts (e.g., intersections), behaviors (e.g., impaired driving), or populations (e.g., pedestrians) that are associated with fatal and serious injury crashes. For example, in the Safe Roads Emphasis Area there are four Focus Areas: intersections, lane departures, off-system (roads), and speed management (Figure 1-3). This plan identifies specific strategies suitable for each Focus Area including clear performance measures, funding sources, project-level detail, and evaluation criteria. Strategies for each Emphasis Area and Focus Area are included in Chapters 5 through 9.

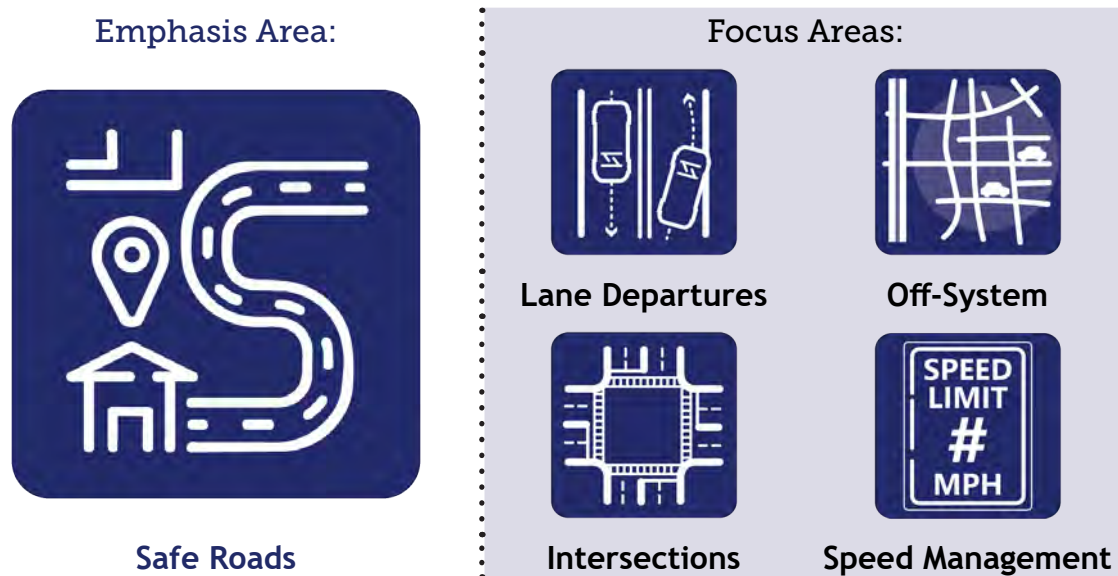


Figure 1-3: Safe Roads Emphasis Area and Focus Areas

## Alignment with Other Plans

The complexity and long-term nature of the transportation system requires multiple short- and long-term plans. Such plans address different geographies (e.g., metropolitan and rural), modes, vehicle classes (e.g., commercial), and safety-related factors (e.g., infrastructure and behavioral).

The SHSP development process involved coordination with various state planning processes, as well as federal, industry-specific, and local road safety plans (Figure 1-4). In total, 44 plans were reviewed to assess alignment with high-level goals, performance measures, strategies, and objectives and identify how these plans could contribute to SHSP implementation. The Appendix includes a full matrix detailing each plan's goals, strategies, objectives, and performance measures and alignment with the SHSP.

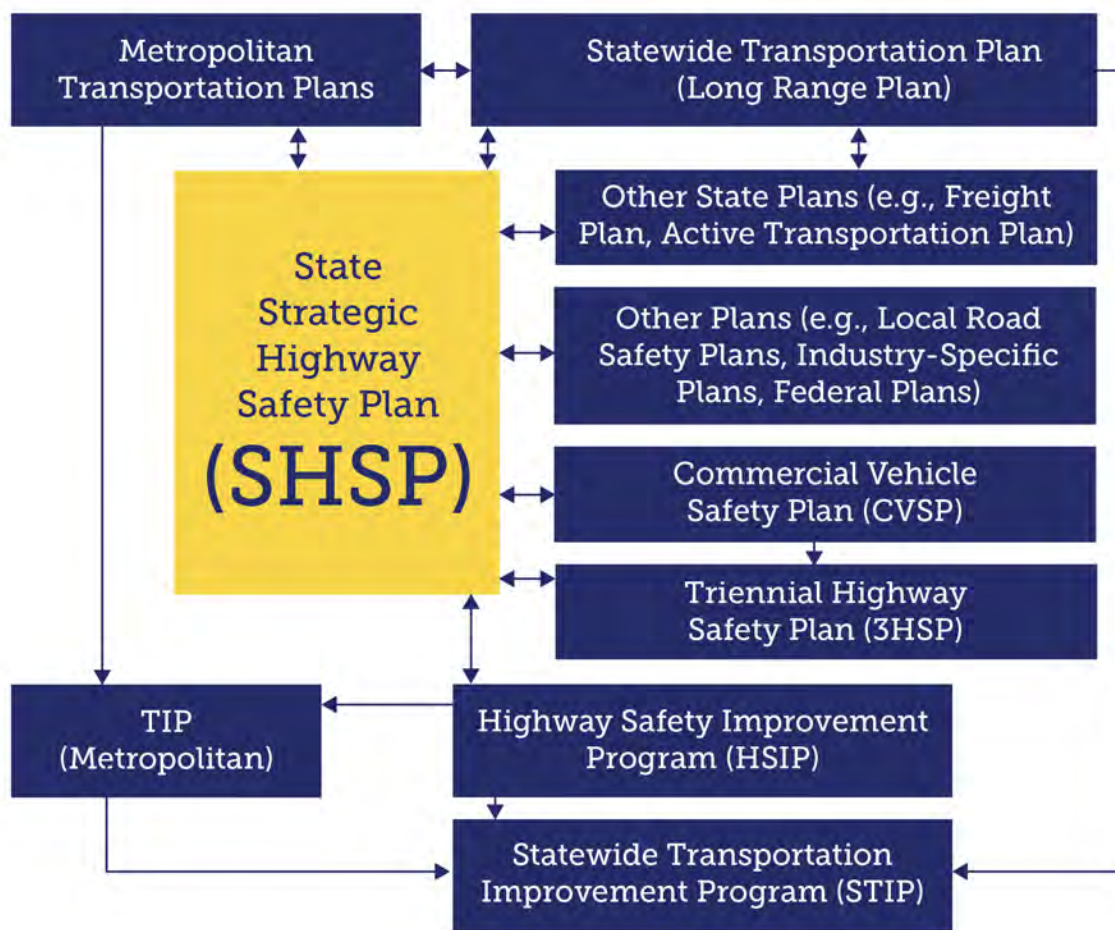


Figure 1-4: Coordinated Transportation Safety Planning, Source reference HSIP.

Opportunities to continue improving alignment with on-going state and local transportation and safety planning efforts include:

- » Developing compatible annual planning timelines.
- » Using consistent data and analysis strategies.
- » Aligning plan and program mission / vision / goals.
- » Identifying consistent strategies and countermeasures.
- » Determine priorities for the correction of hazardous road locations, sections, and elements via identified crash data analysis.
- » Targeting funding to implement strategies associated with SHSP Emphasis Areas.
- » Engaging SHSP stakeholders in planning processes, safety committees, and local and regional safety action planning.
- » Including safety criteria in performance reviews.
- » Providing access to safety data and analysis results.
- » Including SHSP criteria in HSIP and Triennial Highway Safety Plan (3HSP) grant solicitation requirement.



## Summary of Strategies

The following tables summarize the SHSP strategies by Focus Area. More detailed descriptions of the strategies are provided in the SHSP Emphasis Area chapters and the Appendix.

Table 1-1. Safety Culture Strategies

| Focus Area                    | Strategy                                                                                                            |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Organizational Safety Culture | SC1: Conduct organizational safety culture assessments                                                              |
| Organizational Safety Culture | SC 2: Local agency support programs (LTAP and Safety Circuit Rider)                                                 |
| Organizational Safety Culture | SC3: Expand public engagement                                                                                       |
| Organizational Safety Culture | SC4: Consider communities with below average safety outcomes when making transportation safety investment decisions |
| Organizational Safety Culture | SC5: Enhance collaboration and information sharing among traffic safety professionals                               |
| Public Safety Culture         | SC6: Pilot community-level safety culture partnerships                                                              |
| Public Safety Culture         | SC7: Educate through media campaigns                                                                                |
| Public Safety Culture         | SC8: Build capacity among the public                                                                                |

Table 1-2: Safe Driving Strategies

| Focus Area          | Strategy                                               |
|---------------------|--------------------------------------------------------|
| Occupant Protection | SD1: Promote proper use through media campaigns        |
| Occupant Protection | SD2: Educate on primary seat belt law                  |
| Impairment          | SD3: Provide polydrug impairment education             |
| Impairment          | SD4: Prioritize high-risk impaired driving corridors   |
| Impairment          | SD5: Continue high-visibility enforcement              |
| Aggression          | SD6: Deploy anti-aggressive driving campaigns          |
| Aggression          | SD7: Prioritize high-risk aggressive driving corridors |
| Speeding            | SD8: Prioritize high-risk speeding locations           |
| Speeding            | SD9: Deploy speed safety camera systems                |
| Distraction         | SD10: Provide education on hands-free law              |
| Distraction         | SD11: Enhance data collection                          |

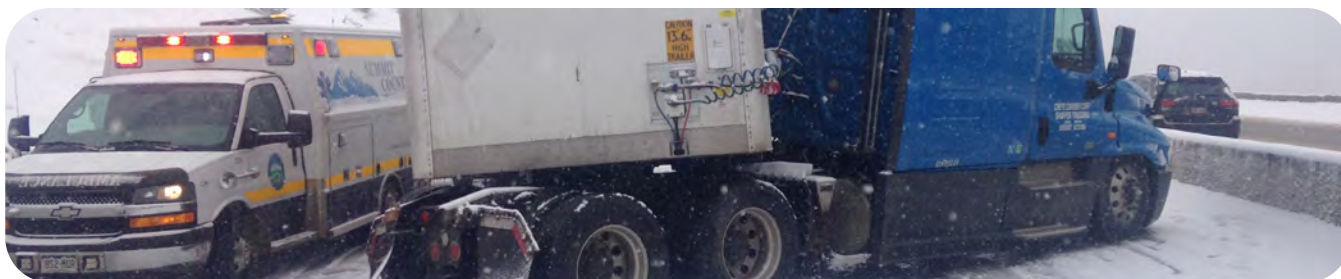


Table 1-3: Safe People Strategies

| Focus Area                    | Strategy                                                               |
|-------------------------------|------------------------------------------------------------------------|
| Motorcyclists                 | SP1: Expand motorcycle operator safety training                        |
| Motorcyclists                 | SP2: Increase public awareness of motorcycle safety                    |
| Motorcyclists                 | SP3: Improve motorcycle licensing and endorsement                      |
| Motorcyclists                 | SP4: Increase helmet and other personal protective equipment (PPE) use |
| Aging Drivers                 | SP5: Improve visibility of traffic control devices                     |
| Aging Drivers and Pedestrians | SP6: Improve sight distances                                           |
| Aging Drivers and Pedestrians | SP7: Expand community-based mobility options                           |
| Aging Drivers                 | SP8: Enhance and expand resources for aging drivers                    |
| Young Drivers                 | SP9: Expand access to driver's education                               |
| Young Drivers                 | SP10: Improve quality of driver's education                            |
| Pedestrians and Bicyclists    | SP11: Prioritize pedestrian and bicycle crash types                    |
| Pedestrians and Bicyclists    | SP12: Improve VRU exposure data                                        |
| Pedestrians and Bicyclists    | SP13: Conduct Road Safety Audits (RSAs)                                |
| Pedestrians and Bicyclists    | SP14: Perform regional pedestrian/bicyclist studies                    |
| Pedestrians and Bicyclists    | SP15: Analyze VRU crash demographic data                               |
| Pedestrians and Bicyclists    | SP16: Conduct VRU before-and-after studies                             |
| Pedestrians and Bicyclists    | SP17: Educate traffic safety professionals on VRU best practices       |
| Pedestrians and Bicyclists    | SP18: Inventory VRU infrastructure                                     |
| Pedestrians and Bicyclists    | SP19: Expand VRU data sources                                          |
| Pedestrians and Bicyclists    | SP20: Evaluate VRU priority locations                                  |
| Work Zones                    | SP21: Create work zone safety committee                                |
| First Responders              | SP22: Provide resources and support for first responders               |



Table 1-4: Safe Roads Strategies

| Focus Area       | Strategy                                            |
|------------------|-----------------------------------------------------|
| Lane Departures  | SR1: Install traffic controls and safety barriers   |
| Lane Departures  | SR2: Improve roadway geometry                       |
| Off-System       | SR3: Provide local agency assistance                |
| Off-System       | SR4: Encourage community-specific plans             |
| Intersections    | SR5: Reduce intersection conflicts                  |
| Intersections    | SR6: Perform Intersection Control Evaluations (ICE) |
| Intersections    | SR7: Incorporate VRU designs                        |
| Intersections    | SR8: Prioritize high-risk intersection locations    |
| Intersections    | SR9: Implement improved traffic controls            |
| Speed Management | SR10: Promote appropriate speeds                    |
| Speed Management | SR11: Set safe and realistic speed limits           |

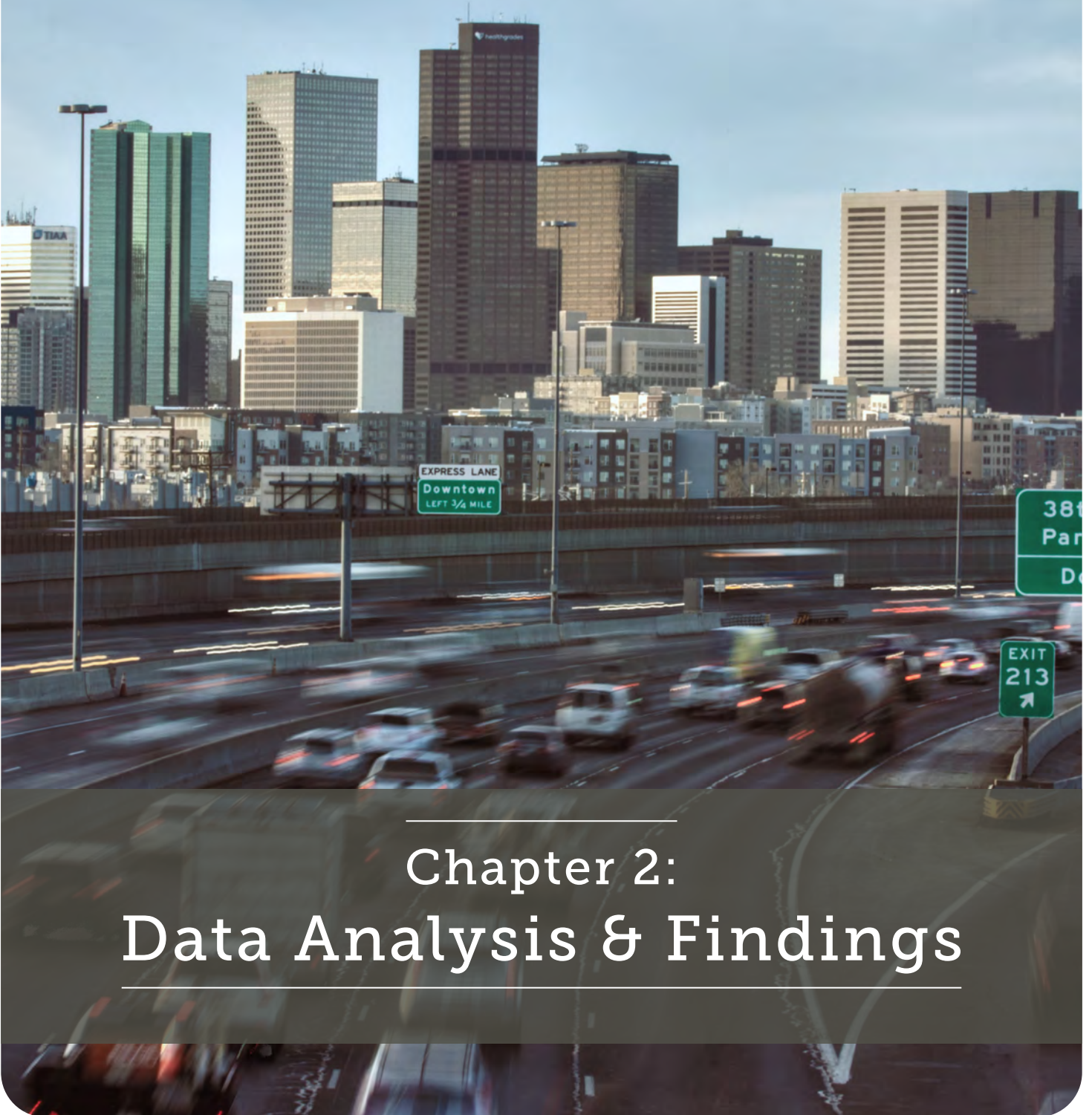




Table 1-5: Post-Crash Care Strategies

| Focus Area | Strategy                                                                  |
|------------|---------------------------------------------------------------------------|
| TIM/EMS    | PC1: Improve collection of post-crash care data                           |
| TIM/EMS    | PC2: Improve quality of care                                              |
| TIM/EMS    | PC3: Provide education on post-crash care best-practices                  |
| TIM/EMS    | PC4: Enhance programs in light of differences in post-crash care outcomes |
| TIM/EMS    | PC5: Support statewide traffic incident management (TIM) activities       |





## Chapter 2: Data Analysis & Findings

The Strategic Highway Safety Plan (SHSP) utilizes a data-driven process, using safety data to identify trends, pinpoint problems, and develop targeted strategies with actionable implementation measures. This section provides an overview of key safety trends in Colorado. Each Emphasis Area and relevant Focus Areas have a distinct data profile and set of characteristics that expand upon this data. For more details on data trends for specific Emphasis Areas and Focus Areas, see Chapters 5 through 9.

## Background

There are numerous ways to measure “safety,” so it is important to understand what safety means in the context of this plan. Historically, a roadway was said to be “safe” if it complied with accepted standards and guidelines. Later, safety was measured by the total number of crashes or a simple crash rate. This plan utilizes current best practices by measuring fatalities and serious injuries, following the SSA principle “death and serious injuries are unacceptable.” This method entails measuring safety in terms of crash severity or the highest level of injury resulting from a crash.

The following are common terms utilized in describing transportation safety (AASHTO, 2010):

- » Crash frequency: the number of crashes in a given study area and study period. Crash frequency can relate to all crashes or a subset of crash severities, crash types, or a combination of the two.
- » Crash rate: the number of crashes normalized by some level of exposure, such as vehicle miles traveled (VMT).
- » Crash severity: the level of injury resulting from a crash. Crash severity can be defined at either the person level or at the crash level. At the person level, this represents the severity reported for each person involved in a crash. At the crash level, this represents the most severe injury resulting from the crash. Crash severity is commonly categorized on crash reports using the KABCO scale, where:
  - » K is a fatality.
  - » A is a suspected serious injury.
  - » B is a suspected minor injury.
  - » C is a possible injury.
  - » O is no apparent injury, also known as property damage only (PDO).

# Methodology

Data analyses were performed to identify key factors contributing to traffic related fatalities and serious injuries. The data analysis focuses on fatal (K) and serious injury (A) crashes, also referred to as severe crashes. Stakeholder input, including feedback from the Steering Committee and Subject Matter Experts (SMEs), aided in the development and interpretation of the analysis.

The analysis provided context for each of the five Emphasis Areas and helped identify factors contributing to observed crash data trends:



Safety  
Culture



Safe  
Driving



Safe  
People



Safe  
Roads



Post-Crash  
Care

- » **Safety Culture:** Community engagement, law enforcement collaboration, data access, and public outreach.
- » **Safe Driving:** Behavioral risk factors, high-risk corridors, high-risk counties, and legislation.
- » **Safe People:** High-risk populations, overrepresented travel modes, roadway workers and first responders.
- » **Safe Roads:** Common crash types, roadway-related risk factors, high-crash locations, and high-risk counties, municipalities, and tribal territories.
- » **Post-Crash Care:** EMS response and transport times, hospital admissions, access to trauma centers, secondary crash rates, and post-crash care analysis.

The SHSP is a statewide plan, making a “hot spot” approach to identifying and treating specific locations based on crash history inappropriate. In contrast, a “systemic approach” to safety acknowledges that crash frequency or rates at specific locations are not always sufficient to determine which safety improvement actions to implement and where to implement them. Systemic implementation of safety actions helps address the most serious crash types on the entire road system, not just at specific high-crash spot locations. The systemic safety approach offers a means to identify crash types (e.g., intersection, roadway departure, pedestrians) and the location-related factors that contribute to the highest number of fatal and serious injury crashes of each type, and widely implement low-cost countermeasures over several locations with similar crash characteristics and/or similar roadway features.

In addition to the factors that contribute to observed crash trends, cost-effectiveness of strategies and the benefit-cost of subsequent strategy-based actions are important considerations. The SMEs, FHWA’s Proven Safety Countermeasures, National Highway Traffic Safety Administration’s (NHTSA) Countermeasures that Work, and FHWA’s Crash Modification Factors Clearinghouse all influenced strategy identification and definition. See Chapter 10 Implementation for more details related to the effectiveness of strategies.

## Data Sources

Colorado agencies collect, maintain, and analyze transportation, socioeconomic, EMS, community engagement and other data. This collective data, in addition to the national sources such as the Fatality Analysis Reporting System (FARS), the Fatality and Injury Reporting System Tool (FIRST), U.S. Census Data, and Emergency Responder Safety Institute (ERSI) data, provides a comprehensive understanding of Colorado's transportation safety landscape.

The SHSP is built upon a comprehensive understanding of historical crash data. In Colorado, crash data originates with law enforcement officers who prepare crash reports and submit the information to the Department of Revenue (DOR). The DOR is the custodian of record for crash reports and disseminates the data to other systems, including those associated with the driver and the vehicle. CDOT receives, processes, and analyzes crash data and provides summary reports to FHWA and NHTSA.

Crash data originates from police crash reports. Different reporting practices among law enforcement officers or agencies can result in inconsistencies in the crash data. Furthermore, the reporting officer may not have complete information when filling out the report, which results in some subjectivity in the data. For instance, it can be difficult for an officer to determine if distraction or speeding were factors in a crash unless there is evidence such as testimonial evidence (e.g., admission of high-risk driving behavior). It is also noteworthy that Colorado's crash report form changed in 2020, resulting in different data being available before and after this date. Because of these changes, some analyses are only performed using data after 2020, including speed-involved crashes.

Historical crash data is also used to identify expected safety performance of roadways and intersections. Level of Service of Safety (LOSS) reflects the safety performance of a particular location through a comparison with other similar locations. Locations with a higher-than-expected crash severity or frequency are typically considered good candidates for safety improvement.

Population trends and public health data also play a role in safety analysis. The Colorado State Demographer and the Department of Local Affairs track current and projected population data. CDPHE collects and maintains data pertaining to EMS. Data relating to EMS dispatch and response, medical treatment, and hospital-related data are important to understanding the factors that contribute to the survivability of the crash.

Road Safety Audits (RSAs) continue to be an emerging practice in Colorado. As they become more commonplace, RSA findings and recommendations can be used to inform subsequent strategies and actions, including identification of systemic safety countermeasures. Chapter 7: Safe People and Chapter 8: Safe Roads include strategies intended to strengthen RSA practices.

The Appendix provides a full list of data sources.



## Safety Trends

This section provides an overview of statewide safety trends. More detailed analysis of crash trends and contributing factors for each Emphasis Area are presented in their respective chapters (Chapters 5 through 9).

Traffic-related fatalities have increased steadily since 2013 and more sharply within the last few years. Based on 5-year rolling averages, fatalities increased by 11% from 2019 to 2023. Over this same period, the 5-year rolling average for serious injuries rose by 28%. This reflects a sharp increase since 2020 when stay-at-home conditions were widespread due to the COVID-19 pandemic. Considering the amount of motor vehicle travel in Colorado, measured in VMT, fatality rates have also increased steadily since 2013, and more sharply since 2019.

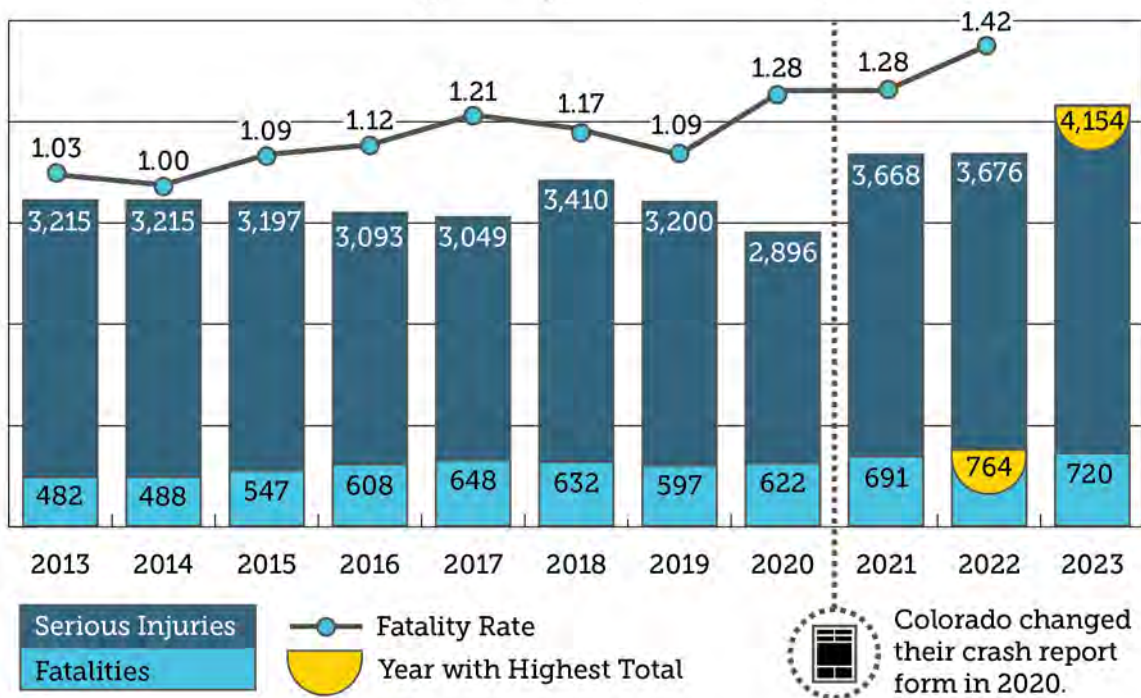


Figure 2-1: Fatalities and Serious Injuries by Year\*\*

\*VMT data not available for 2023

\*\*Sources: FHWA Highway Statistics Tables VM-2. (2017 to 2022); CO Crash Database as of January 2024 (2017 to 2023); HSIP 2022 Report (2013 to 2016)

## Emphasis Areas and Key Crash Factors in Colorado

One of the central roles of Colorado's SHSP is to identify and categorize Focus Areas—safety categories that offer the greatest potential to reduce fatalities and serious injuries. The 20 Focus Areas, which are grouped by Emphasis Areas, were selected through crash data analysis and stakeholder input, including Subject Matter Experts (SMEs). Fourteen (14) of these identified Focus Areas have substantial data to accompany them. Figures 2-2 through 2-4 omit the following six focus areas: Public Safety Culture, Organizational Safety Culture, First Responders, Speed Management, Traffic Incident Management, and EMS, as the related data do not fit these analyses.

While each Emphasis Area and Focus Area is addressed in its own chapter, the plan recognizes that multiple contributing factors often intersect in a single crash. For example, addressing speeding may also help reduce lane departure and impaired driving crashes. The SHSP identifies strategies that proactively target overlapping risks, as well as individual contributing factors.

Intersections, lane departures, and improper use of occupant protection remain some of the leading contributors to fatal and serious injury crashes in Colorado.

Although crashes involving pedestrians, bicyclists, and motorcyclists make up a lesser share of total crashes, they result in disproportionately severe outcomes. For example, since 2021, pedestrians and bicyclists accounted for approximately 17% of all traffic fatalities, despite being involved in far fewer crashes overall.

The figures on the following page illustrate the relative severity of different Focus Area crashes. While some crash types have lower total numbers, such as those involving pedestrians or bicycles, they more frequently result in fatal or serious injury outcomes on a per-crash basis.

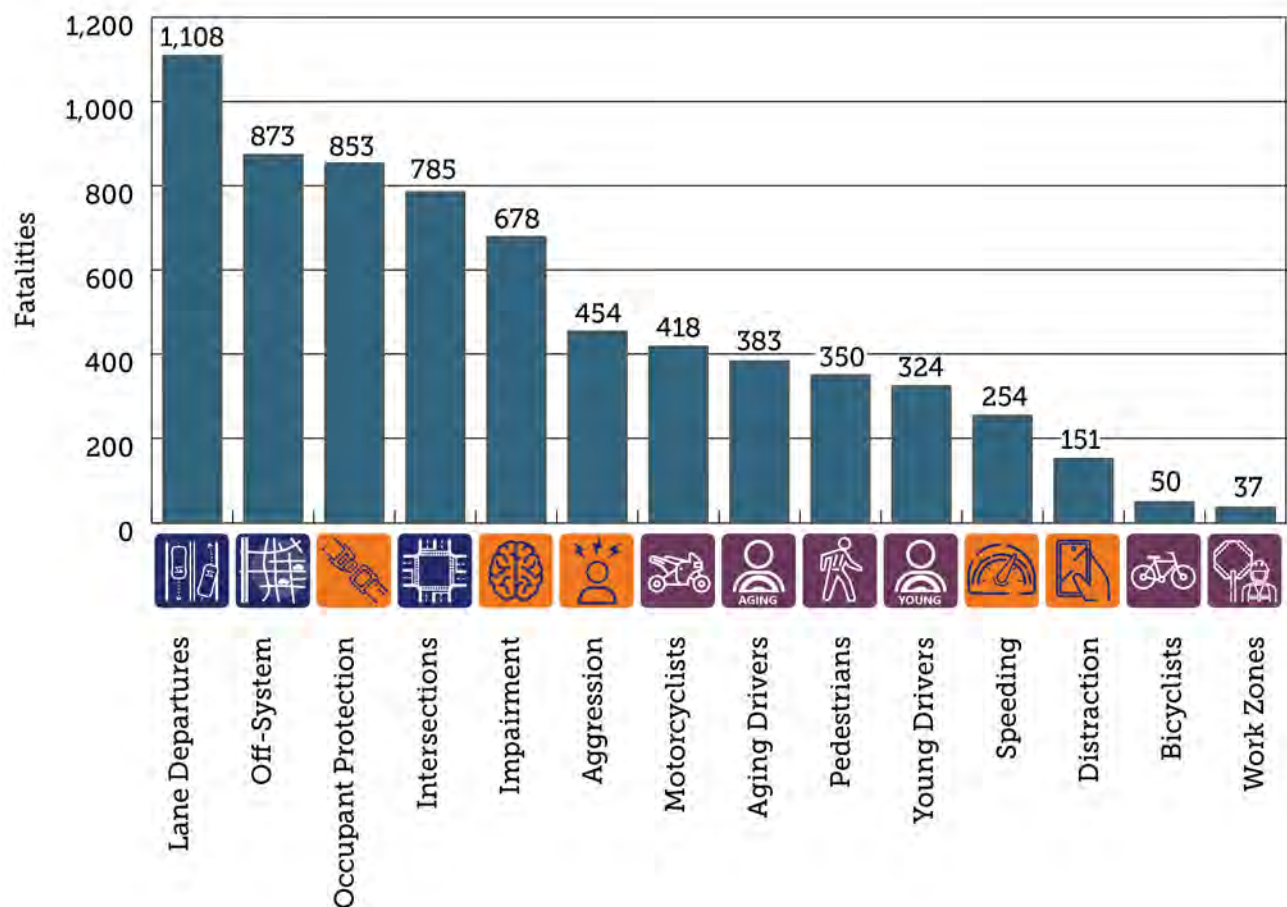


Figure 2-2: Total Fatalities by Focus Area (2021 to 2023)

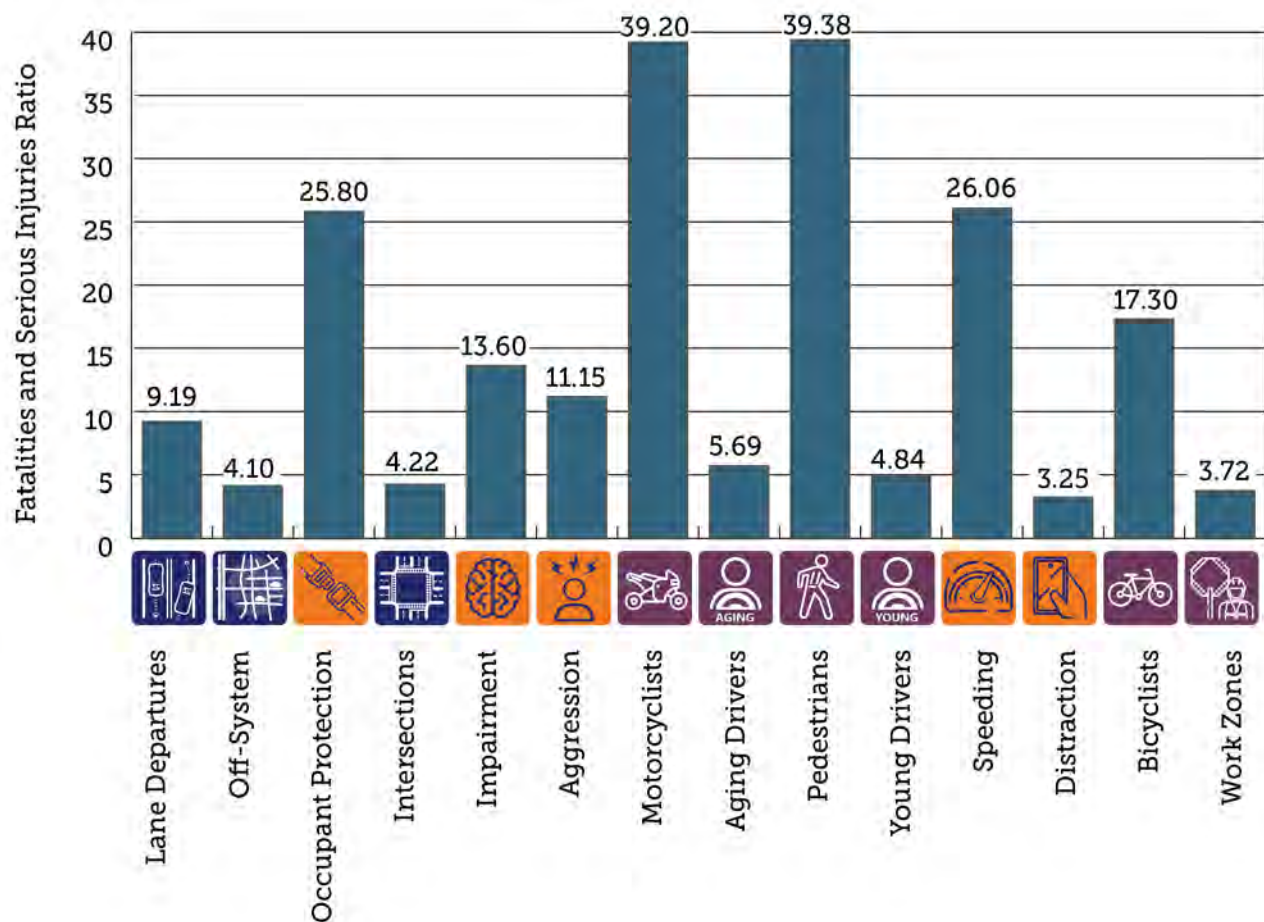


Figure 2-3: Ratio of Fatalities and Serious Injuries to Total Crashes by Focus Area (2021 to 2023)

Figure 2-3 highlights how crashes within certain Focus Areas have a much higher likelihood of resulting in deaths or serious injuries. For example, 39.2% of motorcycle crashes result in a serious injury or fatality. In contrast, 9.2% of lane departure crashes result in serious injury or fatality. It is important to note that although each lane departure crash is less likely to result in a serious injury or fatality, they nevertheless make up a large proportion of the total number of crashes resulting in fatalities and serious injuries and therefore are an important Focus Area of the SHSP.

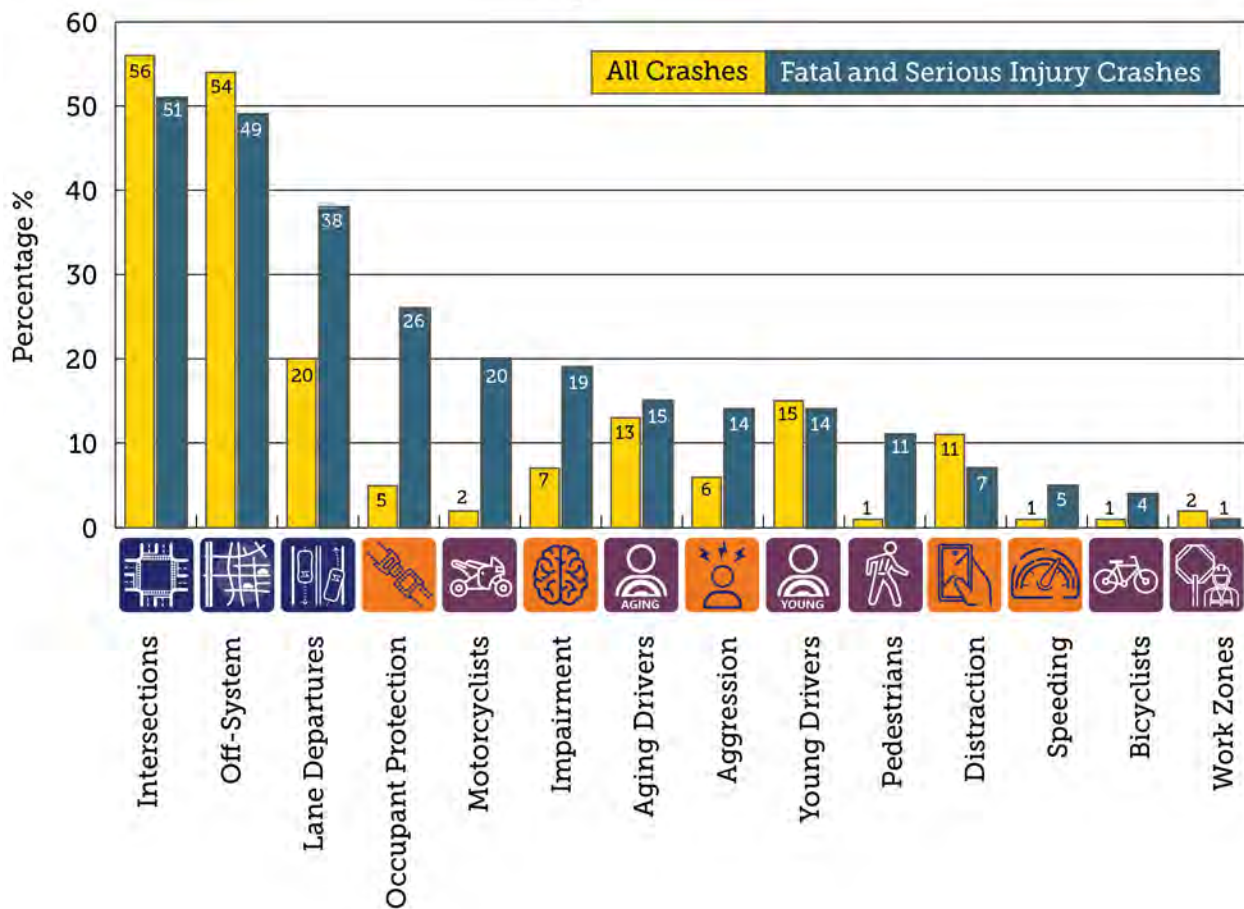


Figure 2-4: Proportion of Fatal and Serious Injury Crashes vs. All Crashes by Focus Area (2021 to 2023)

The number of fatal and serious injury crashes by Focus Area is important, as is the proportion of fatal and serious injury crashes to all crashes, as these illustrate areas where disproportionality creates opportunity for the application of safety improvement strategies. Trends within each Focus Area are also informative as they reveal whether existing strategies are yielding improvement (fewer crashes year-over-year) or if the opposite is true. As shown in Table 2-1, these trends indicate whether a Focus Area is grouped into Safety Culture, High-Impact, Emerging and Monitoring, and Doubling Down on Success categories. As described more thoroughly in Chapter 10 Implementation, the Focus Area category provides a glimpse into the effectiveness of current safety improvement efforts, and aids in the identification of new strategies.



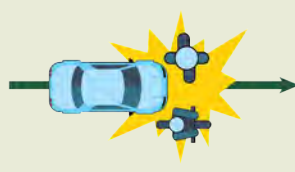
Table 2-1: Focus Area Trends and Resulting Category

| Focus Area                                                                                                              | 2021 Fatal & Serious Injuries | 2022 Fatal & Serious Injuries | 2023 Fatal & Serious Injuries | Total (2021-2023) | % Change (2021-2023) | Focus Area Category   |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------|----------------------|-----------------------|
|  Intersections                          | 2,062                         | 2,183                         | 2,529                         | 6,774             | 23%                  | High-Impact           |
|  Off-System                             | 1,993                         | 2,092                         | 2,315                         | 6,400             | 16%                  | High-Impact           |
|  Lane Departure                         | 1,805                         | 1,827                         | 1,775                         | 5,407             | -2%                  | High-Impact           |
|  Occupant Protection                    | 1,263                         | 1,271                         | 1,246                         | 3,780             | -1%                  | High-Impact           |
|  Impairment                             | 913                           | 986                           | 992                           | 2,891             | 9%                   | High-Impact           |
|  Motorcycles                            | 800                           | 800                           | 842                           | 2,442             | 5%                   | High-Impact           |
|  Young Drivers                          | 606                           | 735                           | 794                           | 2,135             | 31%                  | Emerging & Monitoring |
|  Aging Drivers                          | 673                           | 679                           | 771                           | 2,123             | 15%                  | Emerging & Monitoring |
|  Pedestrians                            | 446                           | 484                           | 625                           | 1,555             | 40%                  | Emerging & Monitoring |
|  Speeding                               | 178                           | 236                           | 292                           | 706               | 64%                  | Emerging & Monitoring |
|  Bicyclists                             | 164                           | 149                           | 210                           | 523               | 28%                  | Emerging & Monitoring |
|  Work Zones                            | 43                            | 52                            | 65                            | 160               | 51%                  | Emerging & Monitoring |
|  Aggression                           | 608                           | 731                           | 690                           | 2,029             | 13%                  | Emerging & Monitoring |
|  First Responders*                    | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Emerging & Monitoring |
|  Emergency Medical Services*          | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Emerging & Monitoring |
|  Distraction                          | 353                           | 339                           | 348                           | 1,040             | -1%                  | Doubling Down         |
|  Speed Management*                    | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Traffic Incident Management*         | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Wildlife-Vehicle Collisions          | 25                            | 36                            | 31                            | 92                | 24%                  | Doubling Down         |
|  Commercial Vehicles*                 | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Children Passenger Safety (Under 15) | 173                           | 147                           | 176                           | 496               | 2%                   | Doubling Down         |
|  Winter Weather Related*              | N/A                           | N/A                           | N/A                           | N/A               | N/A                  | Doubling Down         |
|  Highway-Rail Grade Crossings         | 13                            | 9                             | 20                            | 42                | 54%                  | Doubling Down         |

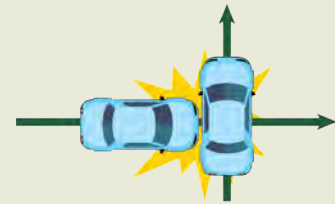
\*Note: Data for these Focus Areas either do not apply in this way, or are not available.



Collision with  
Fixed Object  
**20%**



Pedestrian and  
Bicyclists Crashes  
**17%**



Broadside  
Collision  
**15%**

While the Focus Areas help guide strategic priorities and actions, it is equally important to understand the specific types of crashes contributing to fatalities and serious injuries on Colorado's roadways. From 2019 to 2023, the most common fatal and serious injury crash types statewide were collision with a fixed object (20%), pedestrian and bicyclist crashes (17%), and broadside collisions (15%). These crashes frequently occur at intersections and in areas with high conflict points between road users. Reducing these crash types is essential to improving roadway safety across Colorado.

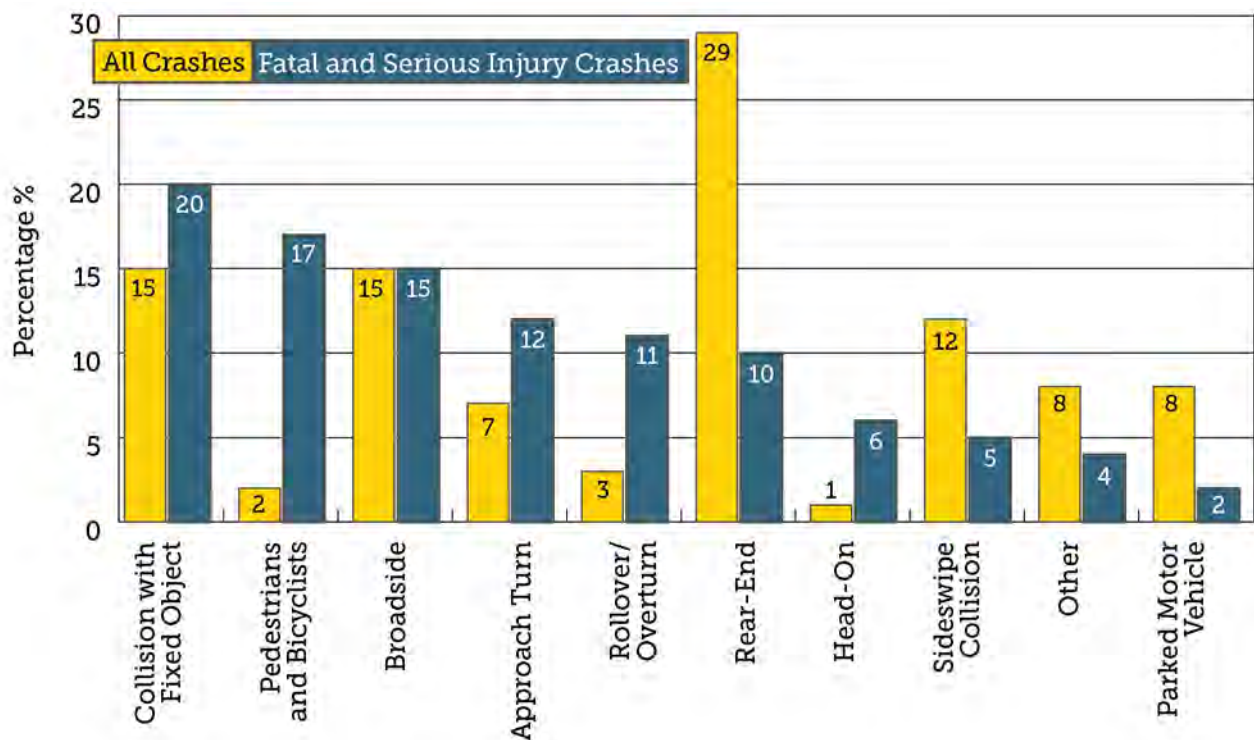


Figure 2-5: Fatalities and Serious Injuries by Crash Type (2021-2023)

## Evolving Travel Trends

The societal shifts from the COVID-19 pandemic had significant impacts on travel patterns and safety across Colorado. VMT declined sharply due to stay-at-home conditions, yet fatal crashes increased, leading to a spike in the fatality rate. This trend highlights how external factors, such as cultural and economic shifts, may compound safety risks.

In Colorado, urban areas account for over double the VMT of rural areas in a typical year. Urban VMT saw the steepest decline in 2020, but since then, travel has largely rebounded to pre-pandemic levels, with continued growth expected. While urban areas have higher traffic volumes and more crashes overall, rural areas experience disproportionately severe crashes on a per-crash basis. Understanding these geographic differences is crucial for improving safety statewide.

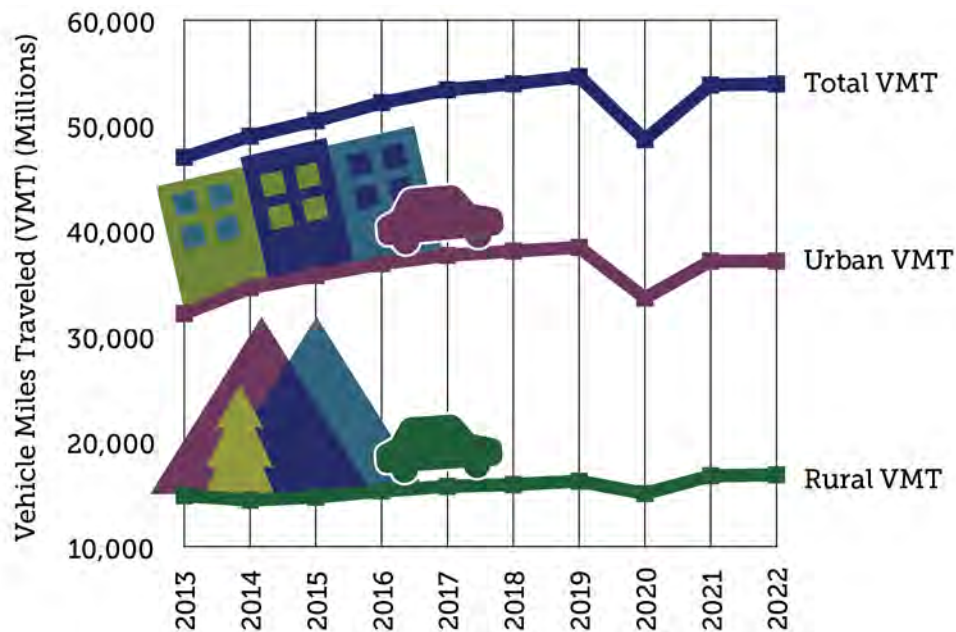


Figure 2-6: Urban vs. Rural VMT Trend (2013-2022)

Source: FHWA Highway Statistics Tables VM-2. (2013 to 2022)

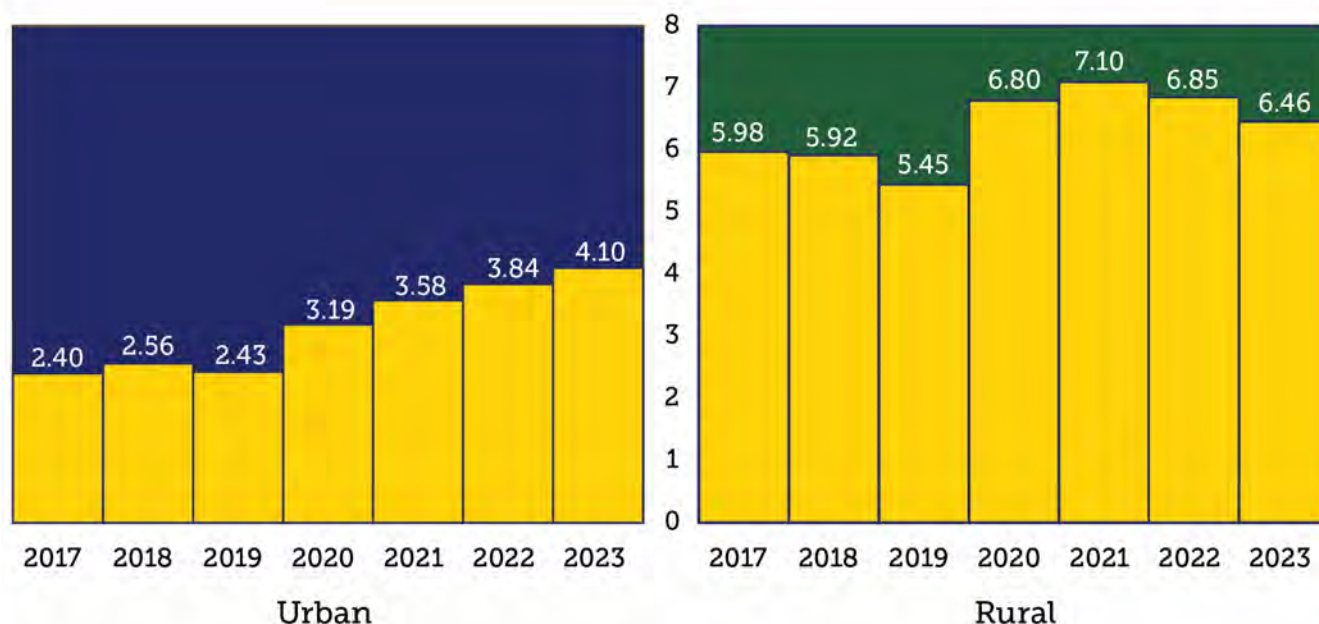


Figure 2-7: Urban vs. Rural Fatal Crash Rate per 100 Crashes (2017-2023)

Source: CO Crash Database as of January 2025 (2017 to 2023)

## Urban and Rural Contexts

Urban and growing communities face safety challenges shaped by their environment. With more pedestrians, bicyclists, and other VRUs, urban areas see a higher proportion of severe crashes involving these road users. This is primarily due to more frequent daily interactions between vehicles and other road users on city streets.

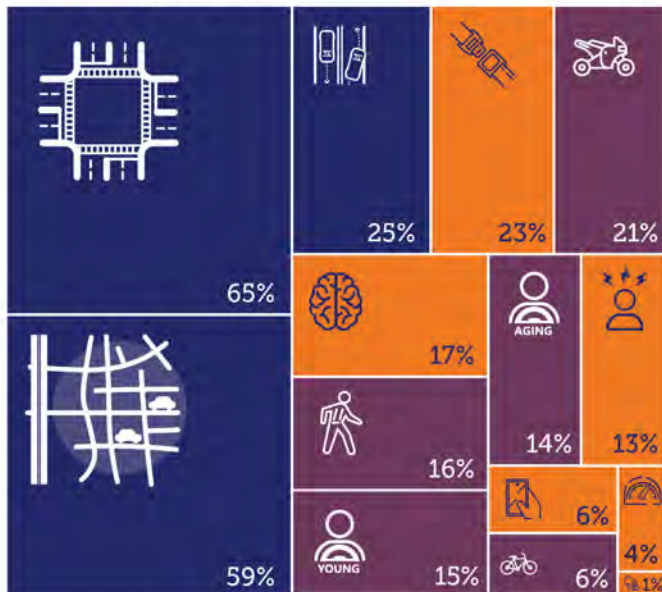
While Colorado continues to urbanize, rural communities experience distinct safety risks that require attention. Although urban areas have three times as many crashes as rural areas, rural crashes more frequently result in fatalities and serious injuries. Factors such as higher speed, lower seat belt use, and lower access to post-crash care contribute to the severity of rural crashes. Addressing these differences is critical for improving safety statewide.

Figure 2-8 illustrates the percentage of fatal and serious injury crashes in urban and rural areas across key Focus Areas. Note that crashes often include multiple contributing factors and represent multiple Focus Areas. For example, a single crash may involve speeding, impairment, and lane departure. As such, the percentages in the figure total more than 100 percent.

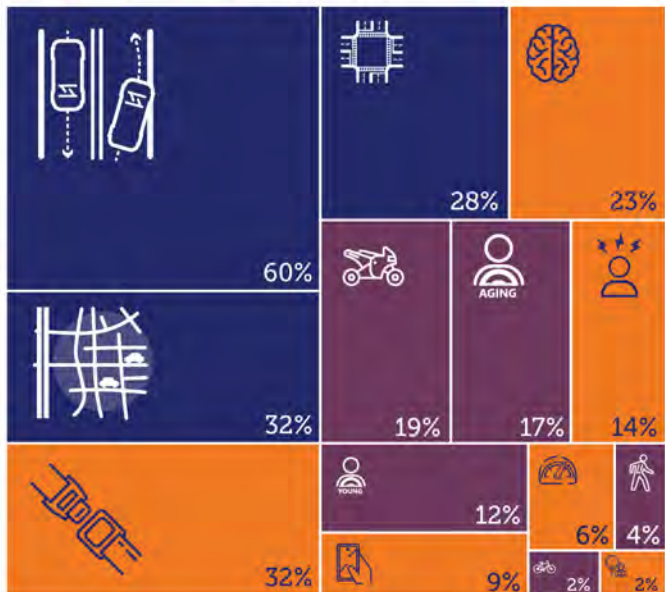




## Urban



## Rural



| Urban                   |                  |
|-------------------------|------------------|
| Intersection 65%        | Young Driver 15% |
| Off-System 59%          | Aging Driver 14% |
| Lane Departure 25%      | Aggression 13%   |
| Occupant Protection 23% | Distraction 6%   |
| Motorcyclists 21%       | Speeding 4%      |
| Impairment 17%          | Bicyclists 6%    |
| Pedestrians 16%         | Work Zone 1%     |

| Rural                   |                  |
|-------------------------|------------------|
| Lane Departure 60%      | Aggression 14%   |
| Off-System 32%          | Young Driver 12% |
| Occupant Protection 32% | Distraction 9%   |
| Intersection 28%        | Speeding 6%      |
| Impairment 23%          | Pedestrians 4%   |
| Motorcyclists 19%       | Bicyclists 2%    |
| Aging Driver 17%        | Work Zone 2%     |

Figure 2-8: Urban and Rural Fatal and Serious Injuries by Focus Area

Source: CO Crash Database as of January 2025 (2021 to 2023)

# State and Local Road Contexts

The state’s roadway system also plays a critical role in crash trends. Though the state highway system accounts for only 10% of Colorado’s total roadway miles, it carries 49% of the total VMT. Reflecting this pattern, 52% of fatal and serious injury crashes occur on state highways, while 48% happen on off-system roadways. This means that strategic safety improvements on a smaller subset of high-risk state highways could address a significant portion of severe crashes.

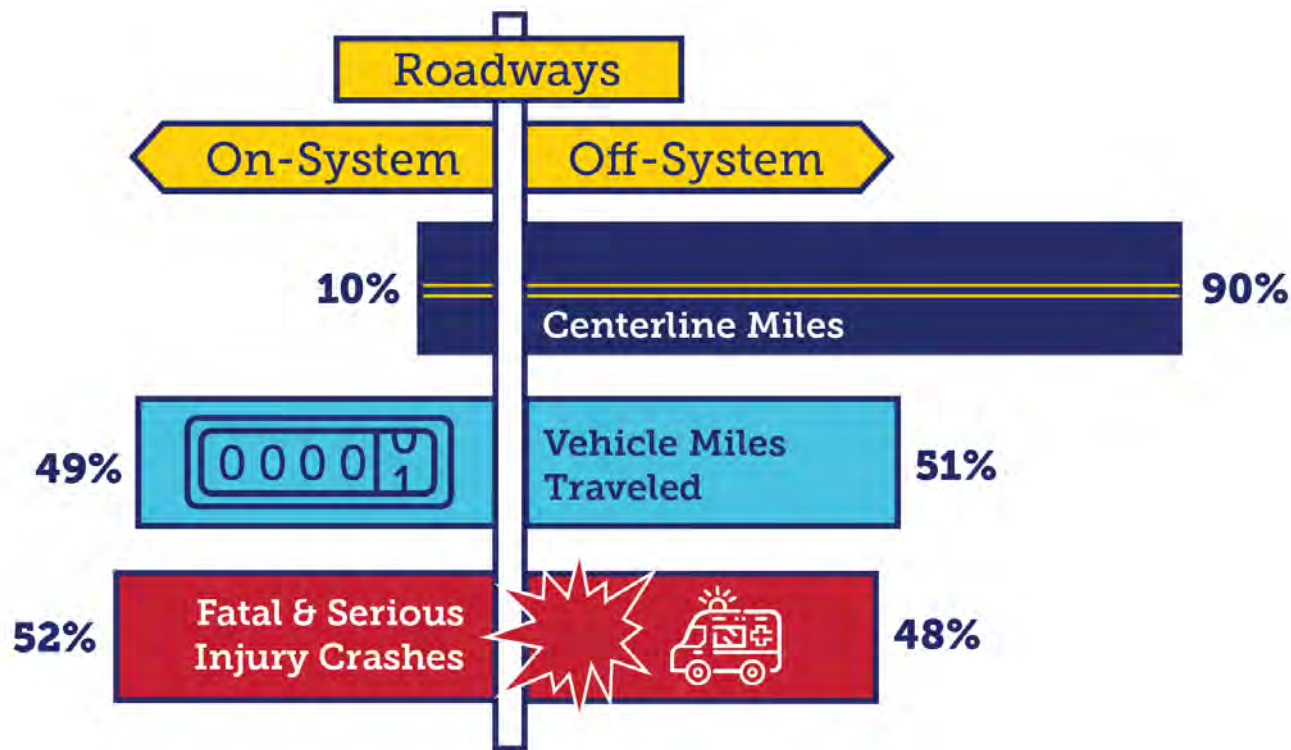


Figure 2-9: Centerline Miles, Annual Vehicle Miles Traveled, and Fatal and Serious Injury Crashes by On vs. Off-System Roadways

# Demographic Shifts

As Colorado’s population grows and shifts, the state faces new challenges in ensuring roadway safety. Over the past decade, Colorado’s population grew by 10%, adding approximately 52,000 new residents in 2023 alone. However, traffic-related fatalities and serious injuries increased by 24% during the same period—growing more than twice as fast as the population. With forecasts projecting another 26% increase in residents by 2050, addressing this widening gap between growth and roadway safety is critical.

Demographic changes are also reshaping travel patterns and crash risk. Older adults are becoming a larger share of Colorado’s drivers, pedestrians, and bicyclists, which has direct safety implications (Figure 2-10). Older adults, especially pedestrians, are more likely to sustain severe injuries or fatalities in crashes. Older adults are less likely to survive a crash due to factors such as increased vulnerability, comorbidities (e.g., heart disease), medications that impair blood clotting, and delayed recovery. As the state plans for the future, it must accommodate aging populations and their mobility needs.

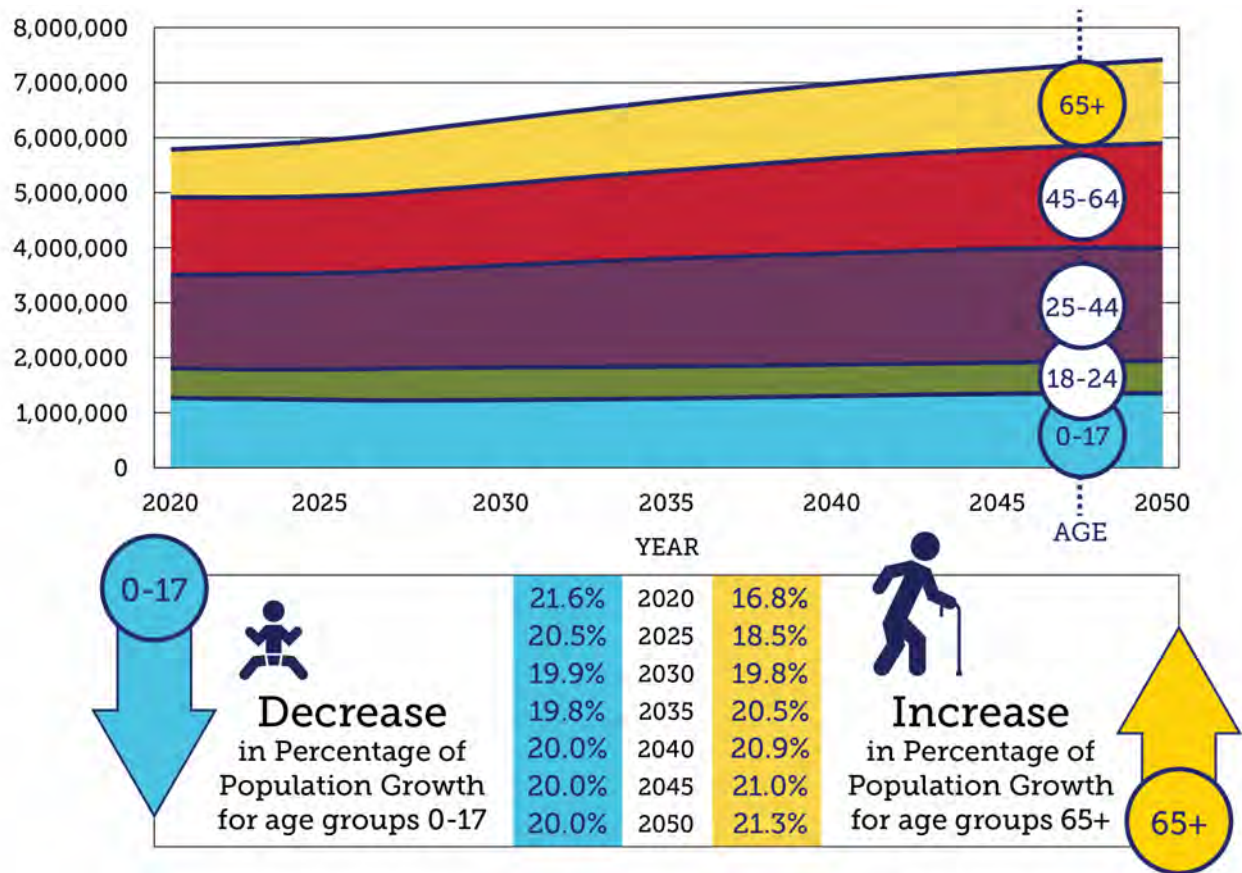


Figure 2-10: Population Growth in Colorado by Age Group (2020-2050)

Source: CO State Demography Office ([https://demography.dola.colorado.gov/assets/lookups/county\\_sya\\_lookup.html](https://demography.dola.colorado.gov/assets/lookups/county_sya_lookup.html))

Disparities in crash risk extend beyond age. National data shows that racial minorities are overrepresented in fatal crashes. Research also suggests that the location and quality of transportation infrastructure in communities play a significant role in crash risk. The next section overlays Colorado's crash data with more extensive details on the socioeconomic and demographic characteristics of those involved in crashes to analyze disparities.

## County Transportation Data

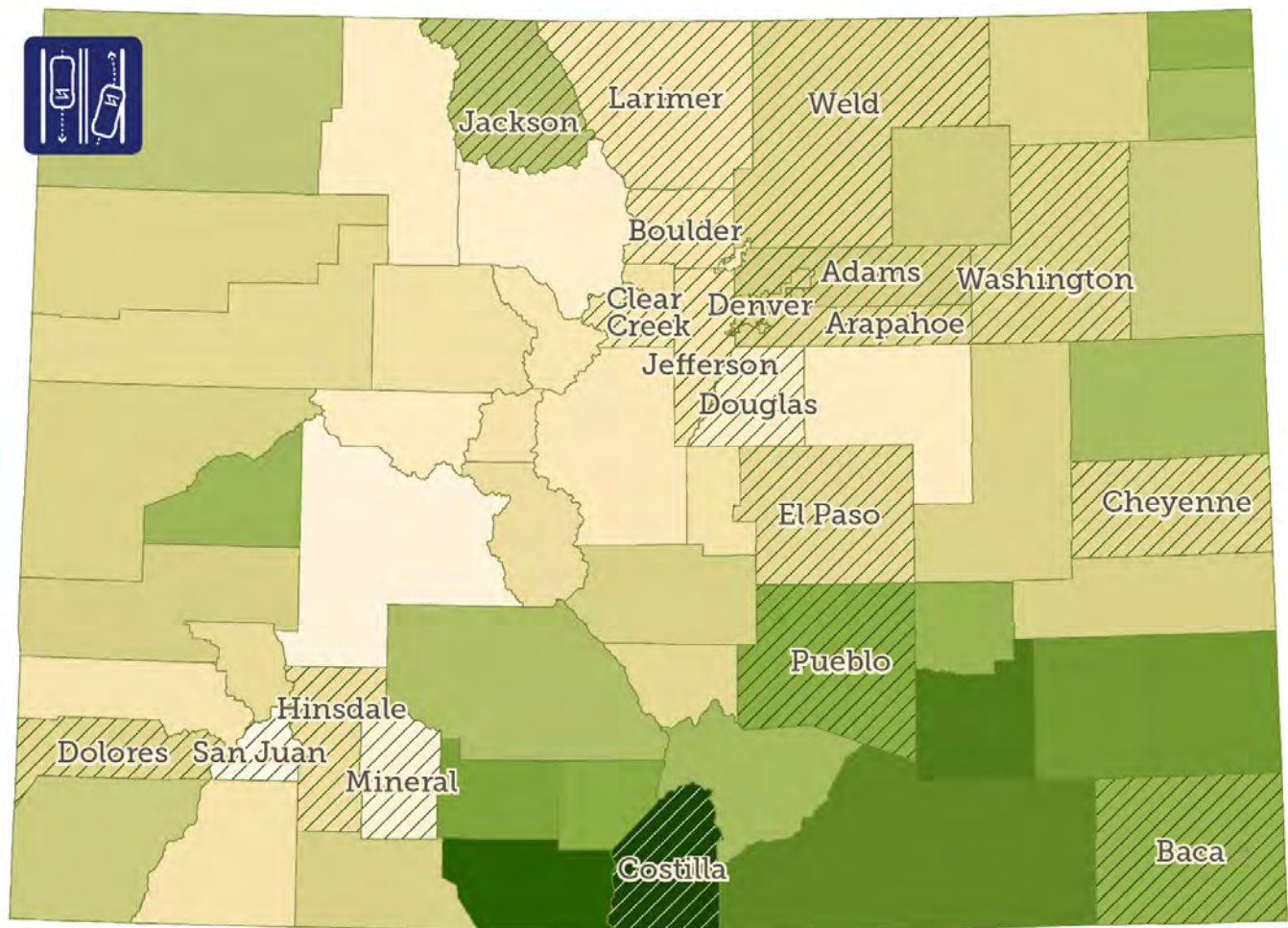
This plan utilizes Transportation Disadvantaged Index (TDI) data developed specifically for Colorado. Adapted from a framework originally created by the North Carolina Department of Transportation (NCDOT), the TDI identifies areas with higher transportation needs by comparing local communities to county, regional, and statewide averages.

The TDI is calculated at the U.S. Census Block Group level. These calculations produce a cumulative TDI score, with higher scores indicating greater transportation need. For this plan, TDI scores are aggregated to the county level to provide a broader, policy-oriented view. The index considers factors such as population, age, income and other factors.

Each safety Focus Area (except those in the Safety Culture Emphasis Area) includes a Weighted TDI Map, displaying county-level TDI scores. Darker shades represent higher TDI values, indicating greater levels of transportation need. To further contextualize transportation need, the maps also identify the counties with the highest total fatalities and serious injuries and/or the highest fatality and serious injury rates per resident for the respective Focus Area.



Figure 2-11: TDI Map Example: Total Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | El Paso              | Mineral                 |
| 2    | Denver               | San Juan                |
| 3    | Adams                | Jackson                 |
| 4    | Jefferson            | Cheyenne                |
| 5    | Weld                 | Baca                    |
| 6    | Larimer              | Hinsdale                |
| 7    | Arapahoe             | Costilla                |
| 8    | Douglas              | Washington              |
| 9    | Boulder              | Clear Creek             |
| 10   | Pueblo               | Dolores                 |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

## 2020 STSP Evaluation

The 2020 STSP identified 15 Tier I (High-Priority) Strategies for implementation. Collectively, the state accomplished most of the Tier I strategies identified in the plan. A few successes included:

- » Naming a safety champion to lead a proactive safety program.
- » Building a safety advocacy coalition (ATS).
- » Institutionalizing safety roles/responsibilities.
- » Coordinating with existing safety programs.
- » Launching the Traffic Safety Summit initiative.
- » Promoting consistent safety messages and campaigns.

These strategies and a number of the actions listed in the STSP continue to progress and have been incorporated into the SHSP strategies. The STSP created the ATS as a safety advocacy coalition, which has crafted a path for the future of transportation safety in Colorado. ATS has led the adoption of Colorado's Safe System Approach which changes the alignment of the focus areas identified in the previous STSP. These focus areas have been redeveloped under the emphasis areas of the SSA (Safety Culture, Safe Driving, Safe People, Safe Roads and Post-Crash Care). These emphasis areas have existing SME teams responsible for development, implementation and monitoring of strategies.

Moving forward with this SHSP, most of the focus areas identified in the STSP have been realigned to fit with the existing emphasis area working groups in the SSA. For example Aggressive Driving has been moved from the High-Risk Behavior emphasis area in the STSP to Safe Driving in the SHSP. The Programmatic focus area in the STSP has been moved to fit under each of the emphasis areas of the SSA in a more focused way. Stakeholders identified and data confirmed that most of the focus areas from the STSP should be continued into this plan, with the addition of several new focus areas, under the existing infrastructure of the SSA.

The 2020 STSP also aimed to reduce the number of traffic-related fatalities and serious injuries per 100 million VMT by 15%. While data reveals fatalities and are starting to trend downwards over the last few years, the goals of the STSP were not met as there was still an overall increase since the adoption of the STSP.

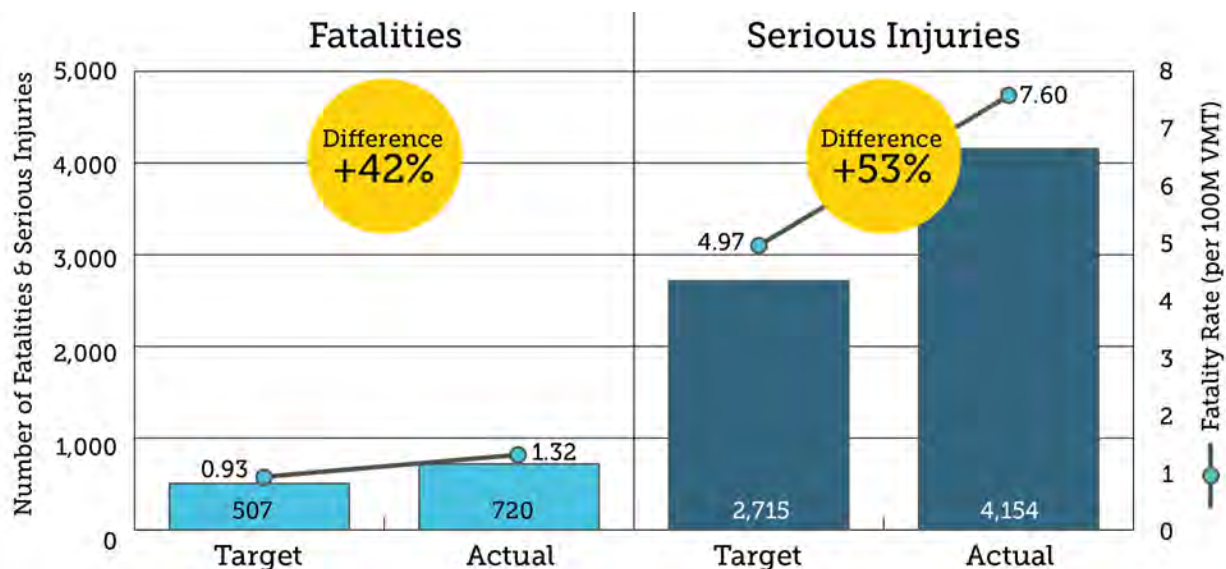


Figure 2-12: 2020 STSP Fatalities and Serious Injuries per 100 Million VMT Goals Versus Actual

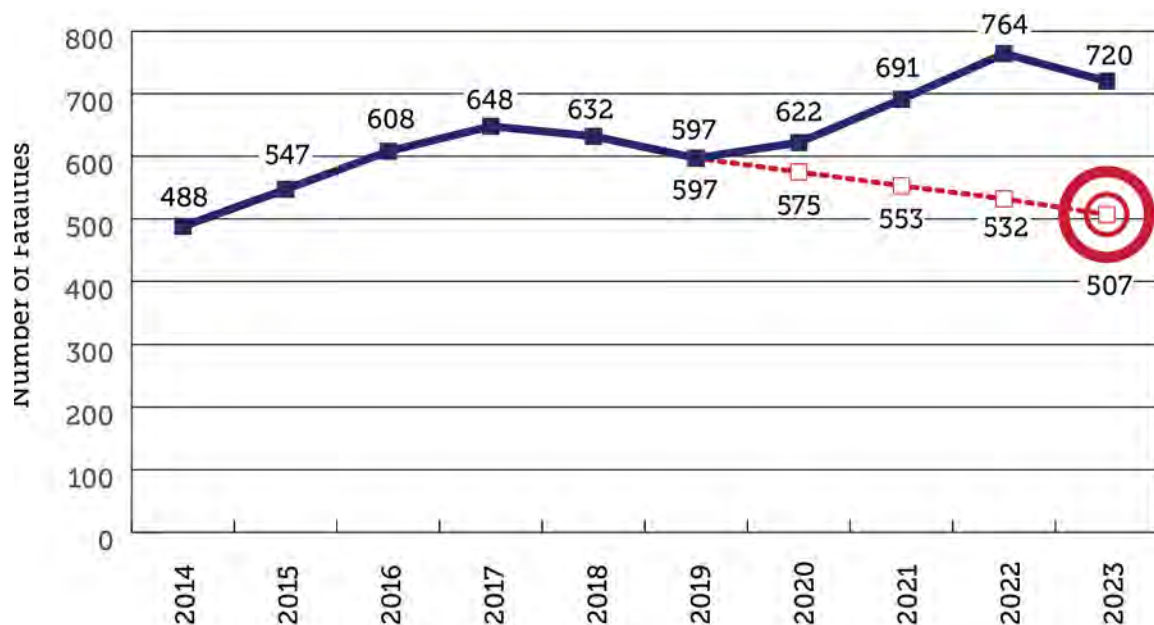


Figure 2-13: 2020 STSP Fatality Goals vs. Actual

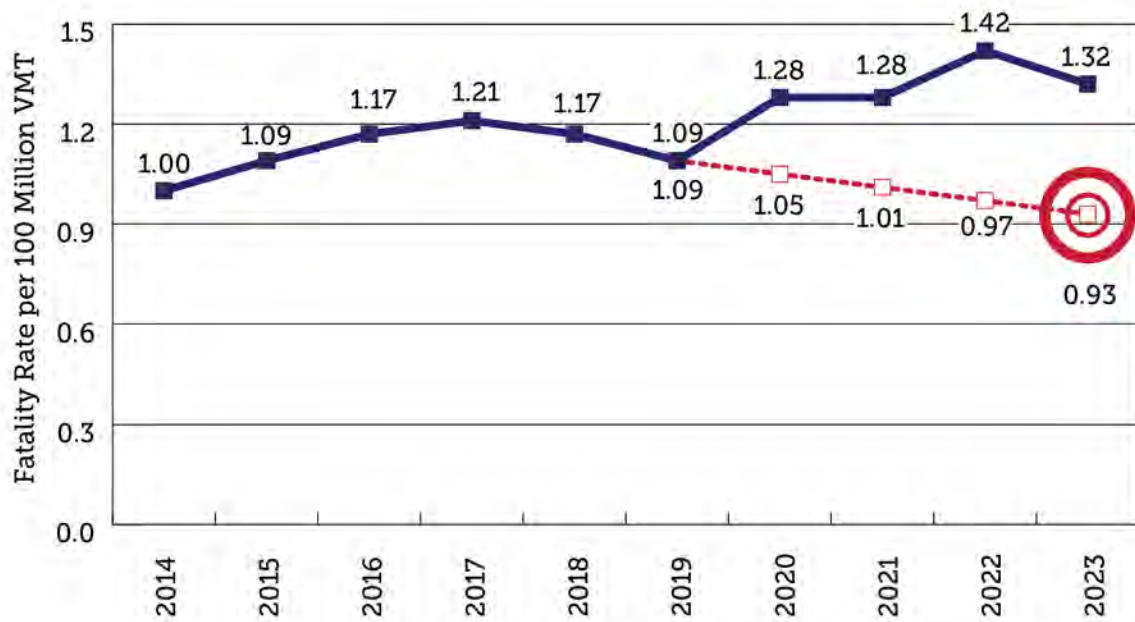


Figure 2-14: 2020 STSP Fatality Rate Goals vs. Actual

Note: 2023 VMT not finalized, projected .06% growth rate used

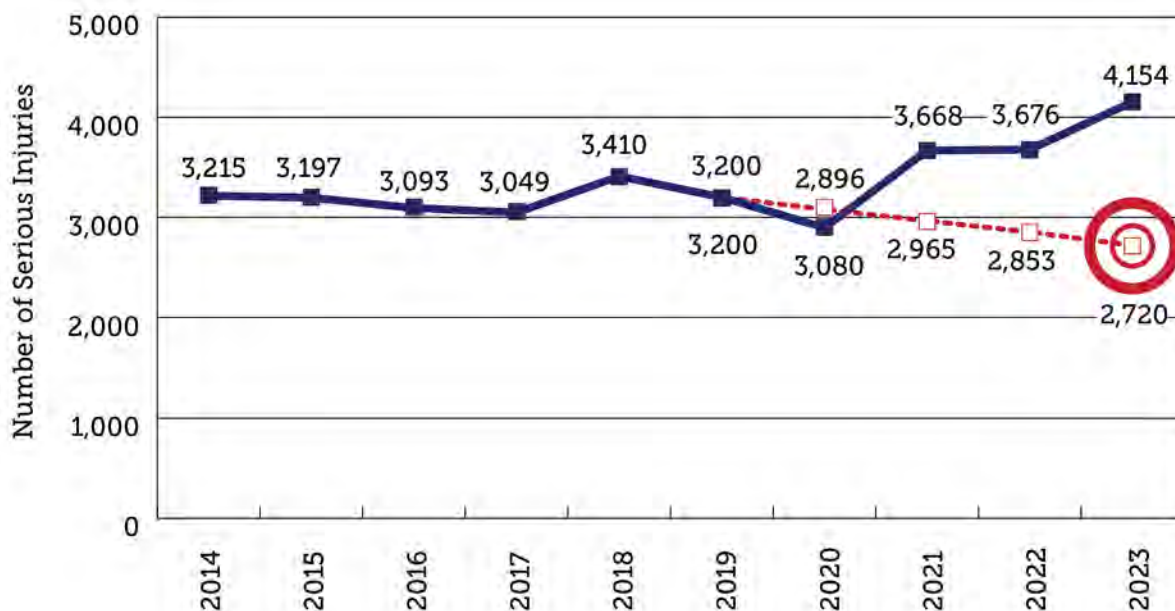


Figure 2-15: 2020 STSP Serious Injury Goals vs. Actual

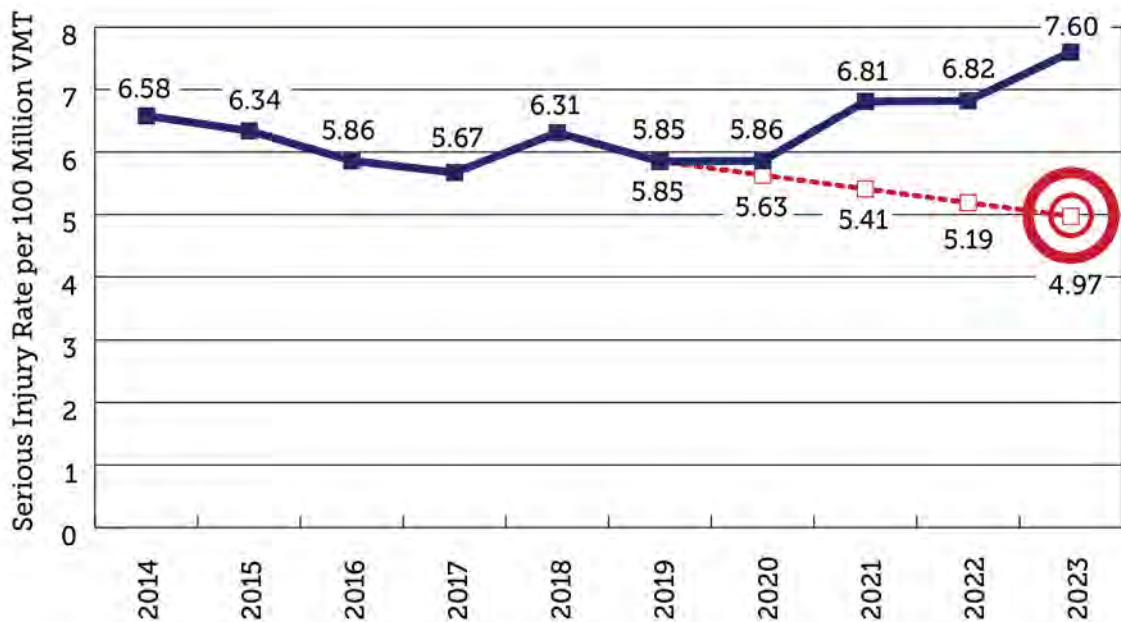


Figure 2-16: 2020 STSP Serious Injury Rate Goals vs. Actual

Note: 2023 VMT not finalized, projected .06% growth rate used





## Chapter 3: SHSP Stakeholder Engagement

Stakeholder engagement played a crucial role in shaping the Strategic Highway Safety Plan (SHSP). External and internal stakeholders alike came together to proclaim a shared vision for increasing transportation safety and shared commitment to realizing that vision. Their insights and expertise played a critical role in shaping the plan and addressing the safety needs of communities statewide. Every piece of feedback—whether gathered through meetings, workshops, emails, or online tools—helped refine strategies, enhance data analysis, and identify additional stakeholders to engage.

## Stakeholders Defined

- » **Colorado Department of Transportation (CDOT) Internal Team:** Serving as a sounding board for the plan’s development, this team provided input and guidance to align the plan with organizational objectives. Team members included the Highway Safety Office, Communications, Environmental Justice and Equity, Traffic Safety & Engineering, Division of Transportation Development, and Regional Traffic Engineers.
- » **Steering Committee:** This group included representatives from Plan Signatories CDOT, Colorado State Patrol (CSP), the Department of Revenue (DOR), the Colorado Department of Public Health and Environment (CDPHE), the National Highway Traffic Safety Administration (NHTSA), and the Federal Highway Administration (FHWA) along with additional state agencies, advocacy groups and special interest organizations. The Steering Committee provided a statewide perspective and strategic direction throughout the planning process to guide Focus Area identification, strategy selection, and plan content.
- » **Advancing Transportation Safety (ATS)/Subject Matter Experts (SMEs):** Leveraging the existing ATS framework from the 2020 SHSP, this group served as the SMEs for each of the Emphasis Areas (Safety Culture, Safe Driving, Safe People, Safe Roads, and Post-Crash Care). The members of the ATS Emphasis Area working groups and additional SMEs met monthly during the plan’s development to review the work and recommendations of the Project Team related to topics such as data analysis, strategies, and priorities.

In addition to the partners above, stakeholder engagement spanned across the state gathering feedback from elected officials, non-profit special interest groups, bicycle and motor carrier organizations, transportation planners, tribal partners, and state and local law enforcement safety professionals. Local agency representatives and county transportation officials also demonstrated their commitment to safety, participating in large numbers both in-person and online. For the complete list of stakeholders see the Plan Acknowledgment.

## Engagement Opportunities

To support plan development and learn more about regional safety concerns, various engagement methods collected a diverse range of feedback and insight across the state. Primary engagement methods included a statewide kickoff meeting, regional in-person and virtual workshops, an online engagement platform, presentations to interested agencies and organizations, and one-on-one meetings. Additional engagement included regular meetings with the SHSP Steering Committee and ATS/SME Emphasis Area groups.



## Regional Workshops

After a statewide virtual kickoff meeting, a series of regional workshops were hosted across Colorado, with hybrid workshops held in Denver, Pueblo, Glenwood Springs, Greeley, and Durango, along with five subsequent virtual workshops. These five hybrid (in-person and virtual) and five virtual workshops attracted over 250 attendees. Stakeholders were invited through direct mail postcards, virtual flyers, and over 1,800 electronic invitations.

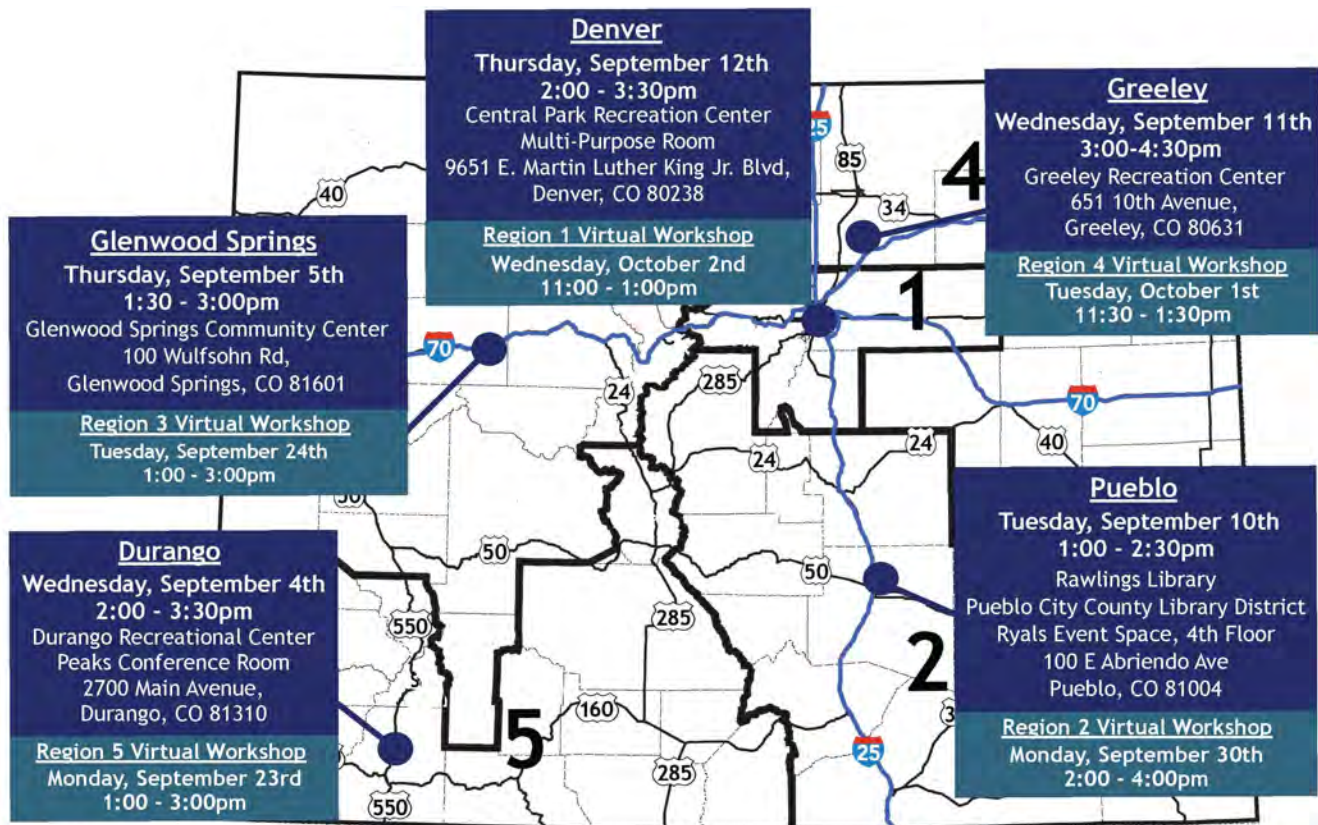


Figure 3-1: Colorado Department of Transportation Regions showing both in-person and virtual workshop meeting dates and times

## Workshop Goals

- » Shaping transportation safety strategies.
- » Assessing current conditions and gaps.
- » Facilitating collaboration among agencies, communities, and stakeholders.
- » Exploring funding opportunities.
- » Collecting insights on local safety needs and challenges.



Figure 3-2: Collage of various workshops in Denver (Region 1), Pueblo (Region 2), Glenwood Springs (Region 3), Greeley (Region 4), and Durango (Region 5)

## Polling

To encourage discussions, meeting facilitators used live polling to capture participants' top transportation safety concerns. Stakeholders provided feedback specific to their regions; however, participants noted consistent concerns related to speeding, impairment, aggressive driving, Vulnerable Road Users (VRUs), and roadway design.



Figure 3-3: Word Cloud responses to “Using one word, what is your most significant transportation safety concern?” from Region 5 Durango Hybrid Workshop - most popular answers populated as largest on the screen



## Breakout Groups

Participants were divided into small groups to discuss key safety issues, resource gaps, and potential community-driven solutions. In-person attendees documented their ideas on large sheets of paper (Figure 3-4) while virtual participants provided input through online comment boards (Figure 3-5).

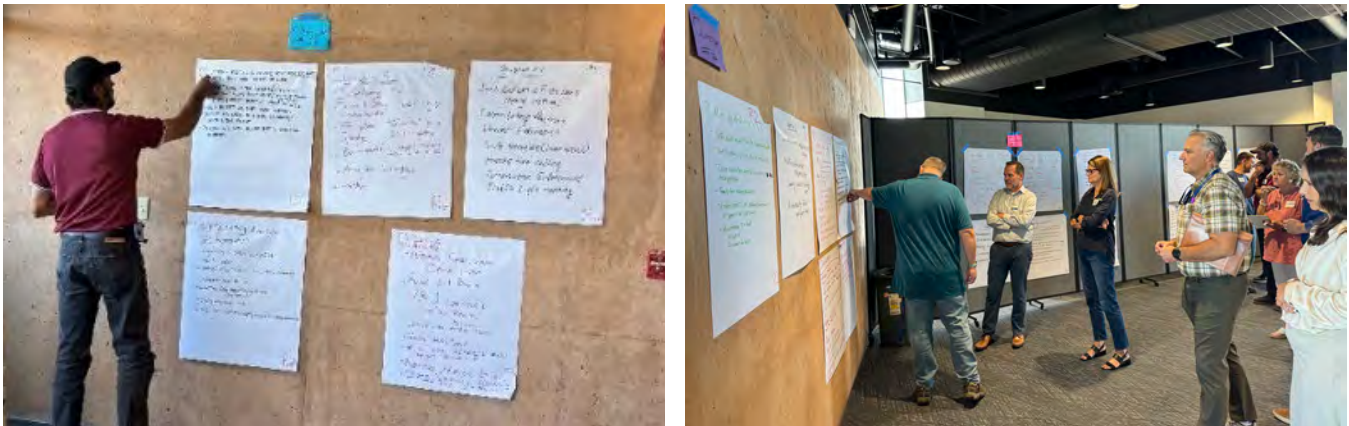


Figure 3-4: Stakeholders at Region 2 workshop in Pueblo sharing their response

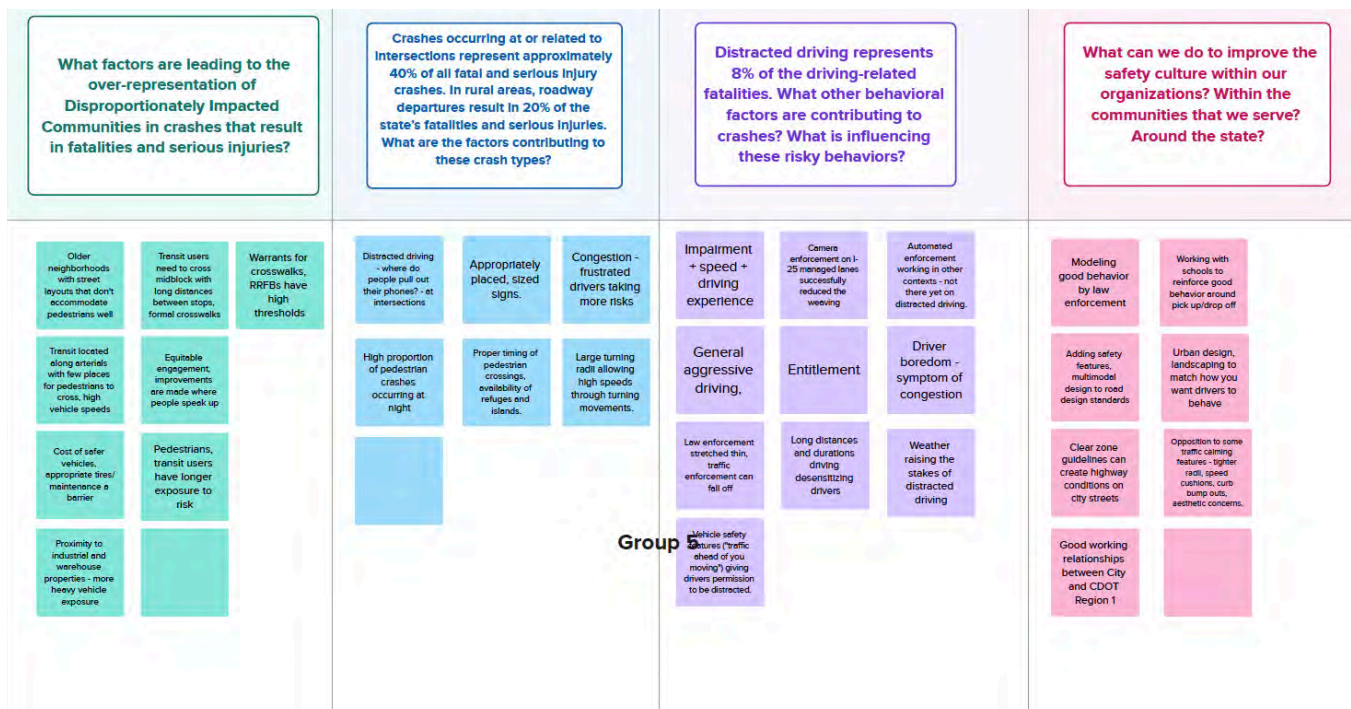


Figure 3-5: Region 1's online comment board

After group discussions, attendees reviewed responses from other groups and identified ideas they supported. Speakers then summarized key insights, concerns, and recommendations for the larger audience.

## Online Engagement

To expand outreach beyond in person events, a dedicated project email and an online engagement platform served as a mechanism for collecting additional stakeholder insight and feedback. Launched on June 25, 2024, the online engagement platform allowed stakeholders to engage in the SHSP process through an interactive comment map. Users could mark locations of concern and provide safety-related feedback.

The online engagement tool received hundreds of messages from stakeholders, which were tracked in a communications log, and included in the Appendix.

**313 comments** were submitted through December 31, 2024.  
**17 counties** and **35 municipalities** represented in the feedback.  
Comments were **categorized by Emphasis Area**: Safety Culture, Safe Roads, Safe People, Safe Driving, and Post-Crash Care.

While most of the comments were site-specific safety concerns (Figure 3-6), key themes included concerns about speeding and speed limits, truck traffic, lack of shoulders, intersection improvements, and pedestrian safety. This feedback guided plan development with insight into the safety priorities of stakeholders. The online comments were also shared with CDOT Regional Traffic Engineers for further action as appropriate.

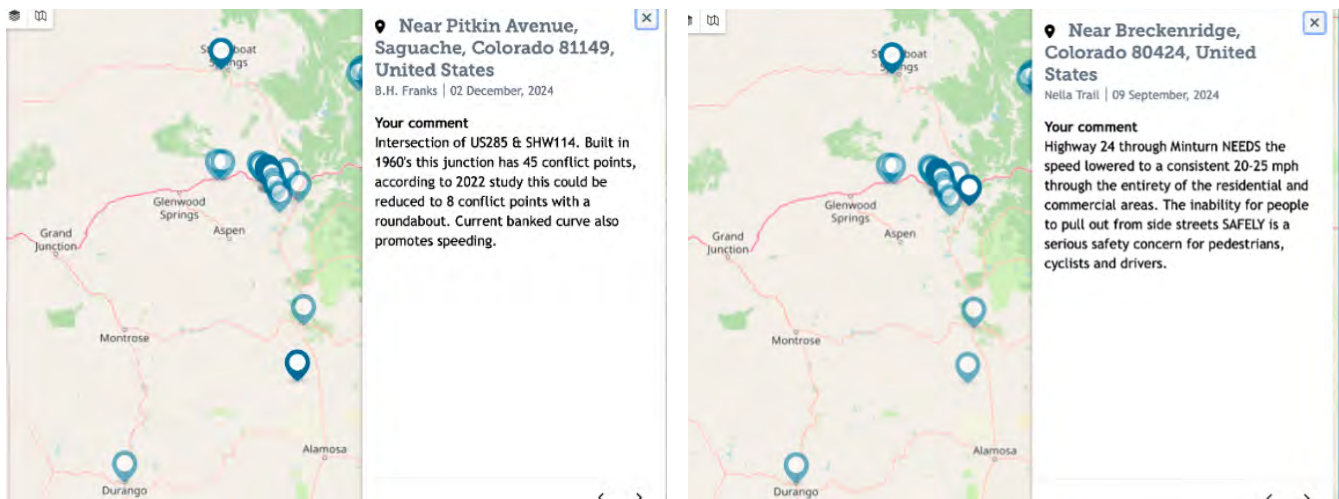


Figure 3-6: Map of Colorado with comment markers

The online comments were categorized by Emphasis Areas (Figure 3-7). Over 50% of the comments related to Safe Roads while 21% concerned Safe People and Safe Driving. Figure 3-8 shows a sample of specific comments related to Safe Roads and Safe Driving.

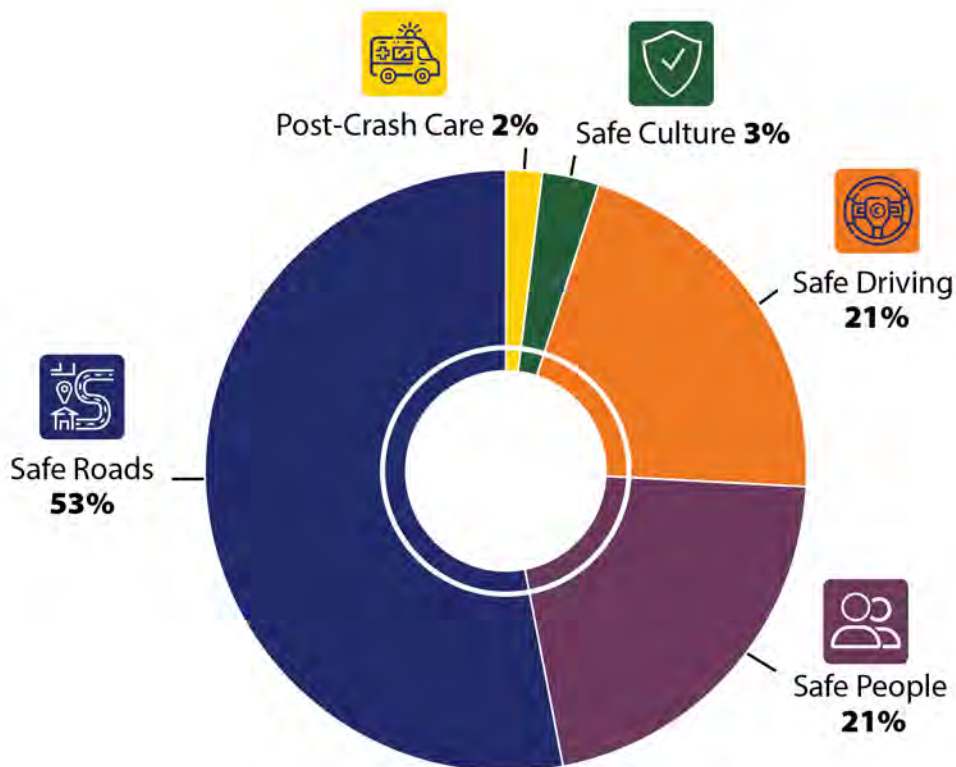


Figure 3-7: A chart showing percentage of online comments by Emphasis Areas



Figure 3-8: Comments from Social Pinpoint about Safe Roads and Safe Driving

## One-on-One Meetings

In addition to the kickoff meeting and the ten stakeholder workshops, one-on-one meetings were conducted with agencies and individuals as requested or needed.

## What We Heard

Participants shared similar themes across the workshops reflecting a statewide commitment to improving roadway safety and reducing fatalities and serious injuries in Colorado. The following points and key takeaways summarize the participant feedback on common safety issues, highlighting concerns, needs, and strategies to enhance safety.

- » The need for mandatory, accessible driver's education programs for all ages, particularly in rural and under-resourced areas.
- » Increased funding for law enforcement and safety initiatives.
- » Recognizing that specific communities face heightened transportation safety risks due to unsafe infrastructure, economic pressures, and limited access to resources.
- » The need for targeted safety interventions, such as addressing urban intersection crashes, rural roadway departures, and crash causation.
- » The impact of driver behavior factors such as distracted driving, speeding, and unsafe cultural norms further exacerbate risks, highlighting the need for comprehensive education campaigns, stricter law enforcement, and innovative solutions.
- » The value of stronger collaboration between CDOT, local agencies, and community organizations, including support for navigating grant funding opportunities.
- » Building a culture of safety by engaging communities, prioritizing education, and strengthening policies.

Feedback included Region-specific feedback in addition to broader safety input. A full summary document of each of the workshops was provided to CDOT Regional Traffic Engineers and is included in the Appendix.





# Chapter 4: Emphasis Areas Overview & Approach

## Introduction

Colorado's Emphasis Areas, based on the Safe System Approach, include Safe Driving, Safe People, Safe Roads, Safety Culture, and Post-Crash Care. Subsequent chapters describe strategies to improve the priority Focus Areas in each Emphasis Area. General descriptions of these strategies for each Emphasis Area are described below.

- » **Safety Culture:** focuses on strategies to grow safety culture in organizations and among the general public to support safer practices and behaviors.
- » **Safe Driving:** focuses on strategies that influence safer driver behaviors and address key issues like impaired driving, distracted driving, aggressive driving, speeding, and occupant protection.
- » **Safe People:** focuses on protecting Vulnerable Road Users (VRUs), which include pedestrians, bicyclists, motorcyclists, first responders, and roadway crews in work zones.
- » **Safe Roads:** identifies and implements noteworthy practices to improve the built environment with leading edge infrastructure and designs that facilitate safe trips for all modes and all roadway users.
- » **Post-Crash Care:** identifies strategies to increase survivability of crashes through timely emergency response, improved access to emergency medical care, safer conditions for first responders, and improved Traffic Incident Management (TIM) practices.

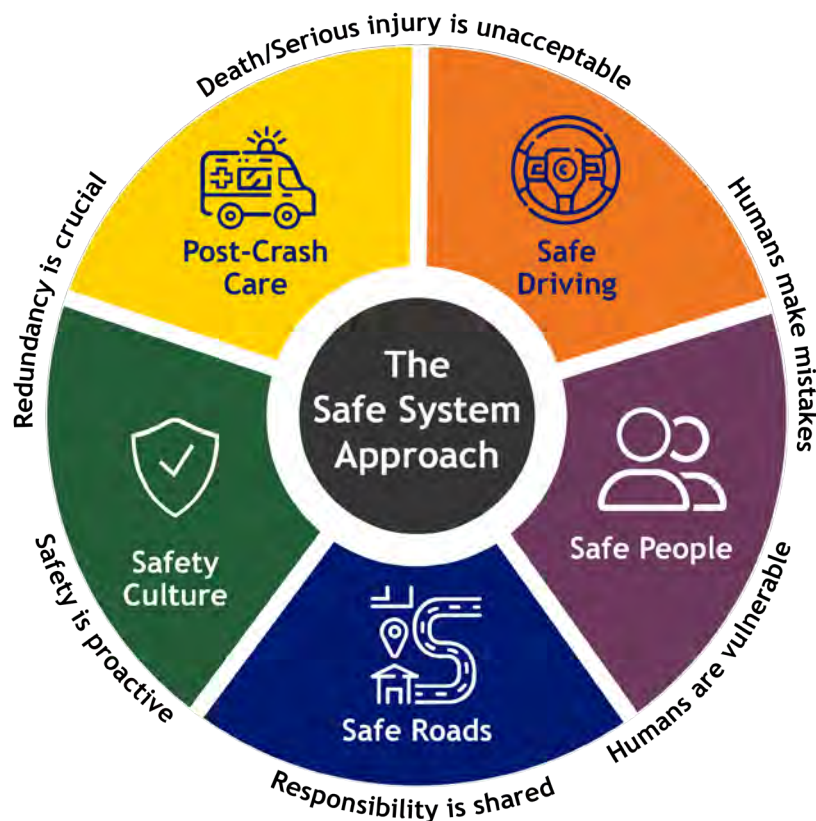


Figure 4-1: The Colorado Safe System Approach



## Emphasis Area Approach

The five Emphasis Areas include 20 Focus Areas described in Chapters 5 through 9 and five additional Focus Areas (see below for further details on: Double Down on Success Focus Areas).

Data analysis and stakeholder feedback from Subject Matter Experts (SMEs) were used to identify Focus Areas that had the highest potential to improve safety. Each Emphasis Area includes Focus Areas that comprise a large portion of fatalities and serious injuries. Guided by these Focus Areas, SMEs and the Steering Committee developed strategies to guide safety improvements.

Grouped by their respective Emphasis Areas, the 20 key Focus Areas are listed below:



### Safety Culture

- » Organizational
- » Public



### Safe Driving

- » Occupant Protection
- » Impairment
- » Aggression
- » Speeding
- » Distraction



### Safe People

- » Motorcyclists
- » Aging Drivers
- » Young Drivers
- » Pedestrians
- » Bicyclists
- » Work Zones
- » First Responders



### Safe Roads

- » Lane Departures
- » Off-System
- » Intersections
- » Speed Management



### Post-Crash Care

- » Traffic Incident Management
- » Emergency Medical Services

## Double Down on Success Focus Areas

Five (5) of the SHSP's Focus Areas (Vehicle Wildlife, Commercial Vehicles, Children Passenger Safety (Under 15), Winter Weather Related, and Highway-Rail Grade Crossings) currently have robust programs and policies in place to address crashes resulting in fatalities and serious injuries. These Focus Areas are already experiencing stable or improved crash outcomes. Safety improvement actions currently underway within these focus areas will continue to be supported through SHSP implementation.





Wildlife-  
Vehicle  
Collisions



Commercial  
Vehicles



Children  
Passenger  
Safety  
(under 15)



Winter Weather  
Related



Highway-  
Rail Grade  
Crossings



**Wildlife-Vehicle Collisions** Wildlife on roadways pose danger to drivers and wildlife alike. There were 132 fatal and serious injury wildlife-related crashes from 2019 to 2023 which is less than 1% of the total fatal and serious injury crashes during that time period. Countermeasures like installation of wildlife fencing, roadside animal detection systems, and wildlife overpasses can mitigate these crashes.



**Commercial Vehicles** Safe travel for commercial motor vehicles (CMV) throughout the state ensures both the health and wellbeing of roadway users, as well as the efficient operation of the freight network. Between 2021 and 2023, crashes involving CMVs made up 3% of the total fatal and serious injury crashes. The Colorado Freight Plan (2024) identifies nine safety-focused strategies that will continue to support CMV safety which includes strategies to enhance truck parking, rail safety, safety data, and communication efforts.



**Children Passenger Safety (Under 15)** Parents and caregivers are responsible for properly restraining children and may be ticketed if they fail to do so. In January 2025, the state updated Colorado's child passenger safety law to reflect the latest research-based recommendations on car seat, booster seat, and seat belt use for children. Resources are available to parents and caregivers including free car seat checks, inspection stations, and car seat fit recommendations.



**Winter Weather Related** Driving in Colorado winter weather can be dangerous if drivers are not prepared for unexpected conditions. From 2019 to 2023, winter weather-related crashes contributed to 4% of total fatal and serious injury crashes. Colorado employs various measures to increase winter weather driving safety including snow removal, avalanche control, traction and chain law enforcement, and various education and communication programs to promote safe driving behaviors.



**Highway-Rail Grade Crossings** The Colorado Public Utility Commission is responsible for safety at over 3,000 highway-rail grade crossings through education, enforcement, and engineering solutions. According to Federal Railroad Administration data, 14 fatalities occurred at Colorado highway-rail grade crossings from 2020 to 2024. Twelve (12) of these 14 fatalities occurred at public crossings, and 6 of the 14 fatalities involved motor vehicles at public crossings.



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Winter weather and wildlife can catch unsuspecting drivers off guard, especially out-of-state drivers such as commercial vehicle drivers. While winter weather and commercial vehicles did not rise to the top in terms of related fatalities and serious injuries, these were noted as concerns during the stakeholder engagement and Colorado will continue efforts to address these concerns.

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## Emphasis Area Roadmap

Each Emphasis Area and its associated Focus Areas and strategies are detailed in Chapters 5 through 9. Stakeholders can use the Emphasis Area chapters to better understand the Emphasis Area, the Focus Areas, and their associated crash characteristics, trends, and strategies for improvement. Below is a roadmap that summarizes what is included in each Emphasis Area chapter.

- » **Introduction to the Emphasis Area and Focus Areas:** Describes the Emphasis Area and how it relates to the included Focus Areas.
- » **Focus Area Definition:** Defines the crash type.
- » **Focus Area Goal:** Defines a goal to reduce fatalities and serious injuries.
- » **Focus Area Data Analysis:** Illustrates crash data analysis of the total fatalities and serious injuries from 2017 to 2023 compared to all crashes for each Focus Area. Due to Colorado's crash report form change in 2020, some Focus Areas only have data available from 2021 to 2023. This analysis also highlights the counties across Colorado with the highest number and per capita rate of fatal and serious injuries for that Focus Area. Unless otherwise noted, data that was utilized in the focus area analysis was sourced from Colorado's Statewide Crash Listings.<sup>1</sup>
- » **Focus Area Strategies:** Lists the strategies with a brief description and how the strategy will improve safety.

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<sup>1</sup> <https://www.codot.gov/safety/traffic-safety/data-analysis/crash-data>



## Chapter 5: Safety Culture



# Introduction

A strong transportation safety culture is fundamental to achieving zero fatalities and serious injuries on Colorado roadways. CDOT defines transportation safety culture as the shared values and beliefs of a group of people that influences behaviors that impact transportation safety.<sup>2</sup>

Transportation safety culture recognizes that different outcomes (i.e., safer consequences as reflected in fewer fatalities and serious injuries) require changes in behavior. Changing behavior requires shifting beliefs (see callout below: Beliefs Influence Behaviors). Thus, growing transportation safety culture involves growing foundational beliefs supportive of safer behaviors that improve consequences.



## Beliefs Influence Behaviors

Decades of research has established that beliefs influence behaviors. Beliefs like:

- » perception of risk (e.g., driving impaired increases the likelihood of crashing)
- » what others expect (e.g., a young driver's understanding of what is acceptable to their parent or a worker's understanding of their supervisor's expectations)
- » what is in our control (e.g., "I am comfortable asking someone else to use a seat belt.")

all have been shown to influence behavior.

This holds for driver behaviors (e.g., speeding) as well as behaviors by others involved in building a safe system such as planners, engineers, construction workers, law enforcement, leaders, elected officials.

Furthermore, this research has been used to develop interventions (e.g., training, coaching, rules/policies, media, countermeasures) to shift beliefs resulting in changes in behavior.

For example:

- » Training on best practices to reduce potential conflicts at intersections grows the knowledge and skills engineers need to design safer intersections thus resulting in new behaviors by engineers.
- » High visibility enforcement (HVE) supported by universal media increases the perception among drivers that they may be caught if they violate driving laws thus decreasing risky driving behaviors.
- » Establishing family rules about always using a seat belt, never driving distracted or impaired, and following speed limits grows an understanding of what is acceptable and unacceptable thus increasing safer behaviors and decreasing risky behaviors.

Implementing the strategies described in this document requires growing beliefs supportive of various actions among many stakeholders. Collectively, these shared beliefs describe the transportation safety culture.

## Beliefs

**Transportation Safety Culture** - shared values and beliefs of a group of people that influence behaviors that impact transportation safety.



## Behavior



## Consequences

<sup>2</sup> Adapted from National Academies of Sciences, Engineering, and Medicine. (2018). A Strategic Approach to Transforming Traffic Safety Culture to Reduce Deaths and Injuries. Retrieved from: <https://nap.nationalacademies.org/catalog/25286/a-strategic-approach-to-transforming-traffic-safety-culture-to-reduce-deaths-and-injuries>



A strong transportation safety culture embraces and champions safety at all levels including elected officials, state and local transportation related agencies, public and private organizations, and the general public. Laws (and their enforcement), policies and practices in both public agencies and private organizations, and behaviors by the public all impact safety consequences.



Because of the variety and number of stakeholders involved in improving transportation safety, the task of growing transportation safety culture can seem overwhelming. However, it can be broken down by group (e.g., elected officials, agency/organization leaders, transportation planners, engineers, law enforcement, schools, families, individuals) and by behavior. For example, Table 5-1 summarizes examples of supportive safety culture to foster the High-Impact Focus Area strategies identified in this plan (along with associated outcomes and safety consequences). For more details on High-Impact Focus Areas, see Chapter 10.

Table 5-1: High-Impact Focus Area Strategies, Examples of Supportive Culture, Outcomes, and Consequences

| Strategy                                                                                                                                                                                                                                                                                                                                                                                 | Examples of Supportive Culture                                                                                                                                                                                                                                                                                       | Examples of Outcomes                                                                                                                                                                                                                                                     | Consequences                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Intersections</b> <ul style="list-style-type: none"> <li>» Reduce intersection conflicts.</li> <li>» Perform Intersection Control Evaluations.</li> <li>» Incorporate Vulnerable Road Users (VRUs) designs.</li> <li>» Address high-risk locations.</li> <li>» Improve traffic controls.</li> </ul> | <ul style="list-style-type: none"> <li>» Prioritization of safety.</li> <li>» Knowledge about best practices.</li> <li>» To reduce intersection conflicts.</li> <li>» VRU designs.</li> <li>» Traffic controls.</li> <li>» Shared expectations about using best practices.</li> </ul>                                | <ul style="list-style-type: none"> <li>» Intersections that reduce the likelihood of high-energy and side impact crashes.</li> <li>» More separation in space and time of VRUs and vehicles.</li> </ul>                                                                  | <ul style="list-style-type: none"> <li>» Reduction in intersection-related fatal and serious injury crashes.</li> </ul>                                                                           |
|  <b>Off-system</b> <ul style="list-style-type: none"> <li>» Local agency assistance.</li> <li>» Community-specific safety plans.</li> </ul>                                                                                                                                                             | <ul style="list-style-type: none"> <li>» Greater shared responsibility for safety.</li> <li>» Prioritization of safety.</li> <li>» Knowledge and skills in using proven countermeasures.</li> <li>» Knowledge and skills to complete safety plans.</li> </ul>                                                        | <ul style="list-style-type: none"> <li>» More local agencies using proven countermeasures.</li> <li>» More local agencies prioritizing safety in planning/design/build/maintenance phases.</li> </ul>                                                                    | <ul style="list-style-type: none"> <li>» Reduction in fatal and serious injury crashes on off-system roads.</li> </ul>                                                                            |
|  <b>Impairment</b> <ul style="list-style-type: none"> <li>» Polydrug impairment education.</li> <li>» High-visibility enforcement (HVE).</li> <li>» Address high-risk corridors.</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>» Greater shared responsibility for safety.</li> <li>» Knowledge about polydrug impairment among key stakeholders and partners.</li> <li>» Willingness, knowledge, and skills among law enforcement agencies and judicial systems to conduct HVE and adjudication.</li> </ul> | <ul style="list-style-type: none"> <li>» Increased knowledge about polydrug use and crash risk among public.</li> <li>» Increased perception of getting caught for DUI.</li> <li>» Fewer impairment-related crashes on corridors with high historical levels.</li> </ul> | <ul style="list-style-type: none"> <li>» Reduction in driving under the influence of multiple substances.</li> <li>» Reduction in impairment-related fatal and serious injury crashes.</li> </ul> |
|  <b>Lane Departures</b> <ul style="list-style-type: none"> <li>» Install traffic controls and safety barriers.</li> <li>» Improve roadway geometry.</li> </ul>                                                                                                                                        | <ul style="list-style-type: none"> <li>» Prioritization of safety.</li> <li>» Knowledge and skills in traffic controls, safety barriers, and roadway geometry.</li> <li>» Shared expectations about using best practices.</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>» More miles of roadways with controls and safety barriers.</li> <li>» Fewer high-risk locations for lane departure due to roadway geometry.</li> </ul>                                                                           | <ul style="list-style-type: none"> <li>» Reduction in run-off-the-road fatal and serious injury crashes.</li> </ul>                                                                               |
|  <b>Occupant Protection</b> <ul style="list-style-type: none"> <li>» Media campaigns regarding proper use.</li> <li>» Education regarding a primary seat belt law.</li> </ul>                                                                                                                         | <ul style="list-style-type: none"> <li>» Knowledge about occupant protection and primary seat belt law among stakeholders and partners.</li> </ul>                                                                                                                                                                   | <ul style="list-style-type: none"> <li>» Increase in beliefs supportive of always wearing a seat belt.</li> <li>» Increase in seat belt use.</li> <li>» More understanding of the benefits of a primary seat belt law.</li> </ul>                                        | <ul style="list-style-type: none"> <li>» Reduction in unrestrained occupants killed or seriously injured in crashes.</li> </ul>                                                                   |
|  <b>Motorcycles</b> <ul style="list-style-type: none"> <li>» Motorcyclist safety training.</li> <li>» Licensing and endorsement.</li> <li>» Increase helmet use.</li> </ul>                                                                                                                           | <ul style="list-style-type: none"> <li>» Knowledge and skills on best-practices for motorcyclist safety training.</li> <li>» Beliefs among motorcyclists of benefits of always using a helmet.</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>» Increase in safety skills and knowledge among motorcyclists.</li> <li>» Increase in motorcycle endorsements.</li> <li>» More motorcyclists always using a helmet.</li> </ul>                                                    | <ul style="list-style-type: none"> <li>» Reduction in fatal and serious injury crashes involving motorcyclists.</li> </ul>                                                                        |

# Colorado's Current Transportation Safety Culture

Transportation safety culture is challenging to measure because it involves people’s values and beliefs. One way that Colorado monitors transportation safety culture among the public is through self-report surveys.

Since 2016, the Colorado Department of Transportation (CDOT) conducts an annual Driver Behavior Survey. This survey asks a representative sample of adult drivers in Colorado about their beliefs and self-reported behaviors regarding a variety of issues including seat belt use, speeding, distracted driving, impaired driving, motorcycle safety, and pedestrian safety. Observational data on seat belt use, distracted driving, and speeding provide additional understanding of road user behavior.

Concern of getting caught for violating traffic laws may reduce risky driving behaviors. Countermeasures such as high visibility enforcement seek to grow the perception of getting caught as a way to reduce risky driving behavior. Table 5-2 summarizes perceptions of getting caught from 2021 to 2024 gathered from the Driver Behavior Survey. The results indicate a decreasing trend for both lower- and higher-speed roads. For instance, the proportion of respondents with a perception of getting caught for speeding on a 65 mph road decreased from 53% in 2021 to 41% in 2024.

Table 5-2: Perception of Getting Caught

| Very Likely or Somewhat Likely to get a ticket / DUI                                                   | 2021 | 2022 | 2023 | 2024 |
|--------------------------------------------------------------------------------------------------------|------|------|------|------|
| Not using a seat belt at all over the next 6 months                                                    | 50%  | 39%  | 40%  | 42%  |
| Driving consistently over the speed limit on a local road where the speed limit is 30 mph              | 63%  | 59%  | 55%  | 58%  |
| Driving consistently over the speed limit on a road where the speed limit is 65 mph                    | 53%  | 42%  | 45%  | 41%  |
| Drinking alcohol and the amount of alcohol in their body was more than what the law allows for drivers | 72%  | 70%  | 68%  | 72%  |
| Using cannabis and the amount of marijuana in their body was more than what the law allows for drivers | 59%  | 54%  | 58%  | 59%  |

Source: CO Driver Behavior Survey: 2021 n=527, 2022 n=843, 2023 n=929, 2024 n=935

Another belief that may reduce risky driving is an individual’s beliefs about how safe or dangerous the behavior is. Table 5-3 shows the percentage of Colorado adult drivers who strongly agree that they can drive safely under the influence of impairing substances (agreement with these statements potentially increases the likelihood of engaging in impaired driving). Unfortunately, the percentage has increased for those who believe they can safely drive under the influence of marijuana (from 9% in 2021 to 12% in 2024). On a positive note, the percentages have decreased for those who believe they can safely drive under the influence of alcohol (from 15% in 2021 to 9% in 2024) and prescription medications (from 16% in 2021 to 11% in 2024).

Table 5-3: Perception of Risk

| Agree (Strongly or Somewhat)                                                             | 2021 | 2022 | 2023 | 2024 |
|------------------------------------------------------------------------------------------|------|------|------|------|
| “I can safely drive under the influence of alcohol”                                      | 15%  | 9%   | 9%   | 9%   |
| “I can safely drive under the influence of marijuana”                                    | 9%   | 14%  | 11%  | 12%  |
| “I can safely drive after using certain prescription medications (other than marijuana)” | 16%  | 11%  | 8%   | 11%  |

Source: CO Driver Behavior Survey: 2021 n=527, 2022 n=843, 2023 n=929, 2024 n=935

Additionally, CDPHE conducts a biannual Healthy Kids Survey (<https://cdphe.colorado.gov/hkcs>) of high school students across Colorado. This survey measures self-reported behaviors such as texting while driving and impaired driving (Table 5-4) as well as related behaviors such as underage drinking and cannabis use (Table 5-5) which are associated with impaired driving. It also assesses beliefs predictive of risk (e.g., perception of harm) and protection (e.g., healthy expectations of important others such as parents).

Data reveal that self-reported traffic safety behaviors have remained stable or improved over the past decade, but that recent results indicate setbacks in driving while impaired (alcohol or cannabis) as well as texting while driving.

Table 5-4: Traffic Safety Behaviors Among Colorado High School Students

| High School Student Behaviors                                                          | 2013 | 2015 | 2017 | 2019 | 2021 | 2023 |
|----------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Usually or always used a seat belt                                                     | 94%  | 93%  | 95%  | 95%  | 96%  | 96%  |
| Driving under the influence of alcohol in the past 30 days (among students who drive)  | 8%   | 7%   | 6%   | 6%   | 4%   | 7%   |
| Driving under the influence of cannabis in the past 30 days (among students who drive) | 11%  | 10%  | 9%   | 11%  | 6%   | 7%   |
| Texted or emailed while driving in the past 30 days (among students who drive)         | 36%  | 36%  | 36%  | 37%  | 32%  | 33%  |
| Rode with a driver in the past 30 day who had been drinking alcohol                    | 18%  | 16%  | 15%  | 16%  | 13%  | NA   |
| Rode with a driver in the past 30 day who had been using cannabis                      | 20%  | 20%  | 19%  | 19%  | 12%  | NA   |

Source: Healthy Kids Colorado High School Survey (<https://cdphe.colorado.gov/hkcs>)



Table 5-5: Substance Use Behaviors Among Colorado High School Students

| High School Student Behaviors          | 2013 | 2015 | 2017 | 2019 | 2021 | 2023 |
|----------------------------------------|------|------|------|------|------|------|
| 30-day use of alcohol                  | 31%  | 30%  | 29%  | 30%  | 24%  | 20%  |
| Binge drinking (4/5 drinks in 2 hours) | 17%  | 17%  | 16%  | 14%  | 13%  | 12%  |
| 30-day use of cannabis                 | 20%  | 21%  | 19%  | 21%  | 13%  | 13%  |

Source: Healthy Kids Colorado High School Survey (<https://cdphe.colorado.gov/hkcs>)

These surveys provide greater understanding of Colorado’s Transportation Safety Culture. Because these surveys are performed annually or biannually, they provide a way of assessing changes over time, identifying trends early, and evaluating potential effects of countermeasures.

## Focus Areas

The Safety Culture Emphasis Area includes eight strategies in two Focus Areas: organizational and public. These two Focus Areas were selected based on stakeholder input, their potential to achieve improvement, and their potential impact on safety consequences.

Unlike other Emphasis Areas, the Safety Culture Focus Areas do not include Transportation Disadvantaged Index (TDI) maps nor specific crash reduction goals. Rather, the Safety Culture Emphasis Area contributes to the strategies (and their associated goals) included in each of the other Emphasis Areas.

## Organizational Safety Culture

Strategies in this plan will be implemented by organizations at the state and local level. Therefore, successful implementation requires growing knowledge about this plan (and how organizations can contribute to strategies) and growing organizational safety culture. Organizations with strong safety cultures proactively elevate the importance of transportation safety by integrating safety into every aspect of programming and projects. For transportation-related organizations, safety is prioritized in the planning, scoping, design, construction, and maintenance of all projects and is a part of everyone’s role regardless of job title. A key component is strong support from leaders, managers, and supervisors. Executive leadership must establish expectations prioritizing safety and hold those under them accountable to these expectations. Organizational leaders must translate safety into policies, practices, and every day behaviors and hold all staff accountable to these expectations.

### Organizational Strategies

The strategies in this section focus on growing organizational safety culture by conducting assessments, building capacity among organizations, and fostering ongoing sharing of trends, best practices, and innovations.

### SC1: Conduct organizational safety culture assessments

**Build traffic safety culture at the community level by growing traffic safety culture within influential organizations.**

Adoption of the strategies in this plan requires a strong safety culture among various organizations (transportation and non-transportation related). This strategy aims to grow safety culture among organizations by using an assessment to identify gaps and opportunities for improvement. Organizational safety culture assessments identify gaps in areas such as leadership, policy, training, and employee engagement and motivate improvement. Assessments provide organizations with concrete steps they can take to improve their safety culture and increase use of best practices to improve transportation safety. The Federal Highway Administration (FHWA) Organizational Safety Culture Self-Assessment Toolkit helps organizations adopt best practices to enhance safety, particularly in transportation-related activities.

### SC2: Support local agency programs (LTAP and Safety Circuit Rider)

**Continue to support the Local Technical Assistance Program (LTAP) and Safety Circuit Rider in their efforts to assist local agencies.**

A significant portion of fatal and serious injury crashes occur on off-system roads. The Colorado LTAP provides a wide range of support to local agencies while the Colorado Safety Circuit Rider's mission is to provide safety-related technical assistance to local agencies developing infrastructure safety improvement projects located off the state highway system. The LTAP and Safety Circuit Rider will facilitate growth of safety culture among organizations by supporting local safety assessments and improvement plans; fostering improved communication and collaboration among local, regional, and state partners; and growing the skills and knowledge of staff by providing training and technical assistance to support the adoption of best practices and access to federal and state resources.



The Safety Circuit Rider's mission is to work hand-in-hand, boots on the ground, with local agencies to identify, diagnose, and treat safety deficiencies on the local roadway system. Safety on locally maintained ("off-system") roads is a significant issue statewide, and many local agencies lack the resources or technical expertise to perform this work without outside assistance.

Figure 5-1: CDOT's Safety Circuit Rider Program Supports Local Agencies and Colorado's Rural Areas.  
Source: CDOT

### **SC3: Expand public engagement**

**By providing training and technical assistance, build the capacity of organizations to successfully engage the public in two-way, productive conversations to grow shared understanding and responsibility.**

Both roadway owners (e.g., state and local governments) and roadway users have a shared responsibility to improve transportation safety. Roadway owners are responsible for planning, design, education, and maintenance while users are responsible for the decisions they make using the system along with their engagement and support in its funding and design. Adopting shared responsibility is often inhibited by the separation between those impacting changes to the transportation system (owners) and those impacted by changes to the transportation system (users). Oftentimes, engaging in transportation planning and engineering conversations has required users to participate in limited ways (e.g., public meetings) and know certain terms/language and relevant data, excluding important community stakeholders from conversations about local safety concerns and projects. This strategy aims to build the capacity of organizations to successfully engage the public in two-way, productive conversations resulting in greater shared understanding and responsibility.

### **SC4: Consider communities with below average safety outcomes when making transportation safety investment decisions**

**Increase investment in communities with below average safety outcomes to reduce safety disparities by increasing awareness of community transportation safety needs and providing support to local agencies and organizations.**

This strategy aims to address safety disparities in communities disproportionately impacted by traffic safety challenges by increasing investment and building a network of support for local agencies. It focuses on improving the skills of local agencies to procure funding and enhance infrastructure and safety programming for communities including but not limited to Vulnerable Road Users (VRUs), young and aging drivers, and other transportation system users as defined in Section 24-4-109 of the Colorado Revised Statutes.

### **SC5: Enhance collaboration and information sharing among traffic safety professionals**

**Continue annual Colorado Traffic Safety Summits to engage, educate, and inspire Colorado transportation professionals from a wide variety of organizations to be safety champions and advance traffic safety culture in their organizations and communities.**

The Colorado Traffic Safety Summit is an annual event to engage, educate, and inspire Colorado transportation professionals from a wide variety of organizations to be safety champions and advance traffic safety culture in their organizations and communities. The Summit offers an opportunity for law enforcement, engineering, planning, education, public health, advocacy, emergency response, healthcare professionals and others to share recent trends, best practices, and innovative emerging approaches to improve transportation safety. The Summit grows shared knowledge, skills, and beliefs (i.e., transportation safety culture) supportive of this plan's strategies.

## Public Safety Culture

Communities with a strong safety culture have a shared understanding of their responsibility to be safe roadway users including understanding the risks and benefits associated with transportation decisions, choosing to make safe choices while navigating the transportation network. For instance, drivers and passengers in these communities are more likely to wear seat belts, use child safety seats, or wear helmets while operating a motorcycle. They recognize that their own driving behaviors can negatively impact others and choose to obey traffic laws, slow down at work zones, drive the speed limit, reduce distractions, and never drive impaired. They also support efforts within their community to improve transportation safety and create expectations within their families, neighborhoods, and workplaces that promote transportation safety.

### Public Strategies

#### **SC6: Pilot community-level safety culture partnerships**

**Utilize community-level pilot projects to learn and demonstrate effective safety practices.**

Behaviors related to engineering, post-crash care, law enforcement, and driving behaviors (e.g., impairment, speeding, distraction, seat belt use) have significant impact on fatal and serious injury crashes. Often, these behaviors can be most impacted at the community level. Somewhat new to transportation safety approaches, public health often uses community-level pilot projects to learn and demonstrate effective practices. These pilot projects may use different models (e.g., risk and protective factor models) engaging broad-based coalitions that address factors across the social environment (e.g., policy, law enforcement, funding, organizations, healthcare, schools, families, individuals) to improve safety. This strategy aims to improve transportation safety by partnering with public health on one or more pilot projects to grow traffic safety culture at the community level. Learning and demonstrating what's possible with a locally focused, public health project enables much broader and more effective programming in the future to reach more communities across Colorado.



## Locally-Based Transportation Projects

Public health has used locally-based projects for over two decades to address issues such as substance use among youth, mental health, violence, suicide, obesity, and cardiac health. These approaches typically form local coalitions with stakeholders representing a variety of sectors including schools, workplaces, law enforcement, non-profits, elected officials, media, and healthcare. These coalitions gather data about local consequences, behaviors, beliefs, and contextual factors (like alcohol outlet density or availability of healthy food). The data are used to identify risk and protective factors. Best practices to reduce risk factors and increase protective factors that are appropriate for the community are selected (from published research) and implemented. Implementation is monitored to assure fidelity to the way the practices were designed, and evaluations are used to track progress and assess outcomes. Over time, the process is repeated. Lessons learned are gathered and shared with other communities to facilitate replication.



Figure 5-2: Bike to Work Day Rider Appreciation Station. Source CDOT

### **SC7: Educate through media campaigns**

**Create and distribute universal education using media campaigns and resources.**

Educating the public about safe transportation practices, laws, risks, and benefits can be an effective way to grow transportation safety culture. This strategy develops, distributes, and promotes educational videos, stories, and information on a range of transportation safety topics including recently adopted laws, driver behavior, occupant protection, winter weather driving, and VRUs. This strategy includes partnering with new stakeholders and utilizes social media, billboards, videos, and school-focused materials.

### **SC8: Build capacity among the public**

**Expand on existing public engagement programming to build the capacity of the public to encourage two-way, productive conversations between everyday road users and government agencies by educating the public about ways to share concerns, transportation safety, and their role in growing a safer system.**

Improving transportation safety culture includes growing shared responsibility among transportation system owners and users, reflecting both the importance of safety in system design and the behavior of users. However, many transportation system users may not know how, have the right level of knowledge or language, or be comfortable sharing concerns or engaging in conversations. This strategy aims to expand on existing public engagement programming to build the capacity of the public to encourage two-way, productive conversations between everyday transportation users and government agencies by educating the public about ways to share concerns, transportation safety, and their role in growing a safer system.





## Chapter 6: Safe Driving





## Introduction

The Safe Driving Emphasis Area recognizes that driving behaviors are a key contributing factor in a significant proportion of fatalities and serious injuries that occur on Colorado’s roadways. Safe Driving targets high-risk driving behaviors, including distraction, aggression, impairment, occupant protection (seat belts and/or helmets), and speeding.

The Safe Driving Emphasis Area is a critical component of the Safe System Approach (SSA), highlighting that humans make mistakes that can lead or contribute to crashes. High-risk driving behaviors, such as unrestrained and speeding, significantly contribute to the crash severity outcome. The Safe Driving Emphasis Area focuses on encouraging safe, responsible driving behaviors.

The primary objective of the Safe Driving Emphasis Area within this plan is to bring focus on better understanding and influencing human behaviors and actions by all road users. This effort seeks to promote actions that encourage safe driving behaviors, reducing contributing factors to a large proportion of fatal and serious injury crashes on the roadway.

## Focus Areas

The Safe Driving Emphasis Area identifies five Focus Areas:

### Emphasis Area:



Safe Driving

### Focus Areas:



Occupant Protection



Impairment



Aggression



Speeding



Distraction



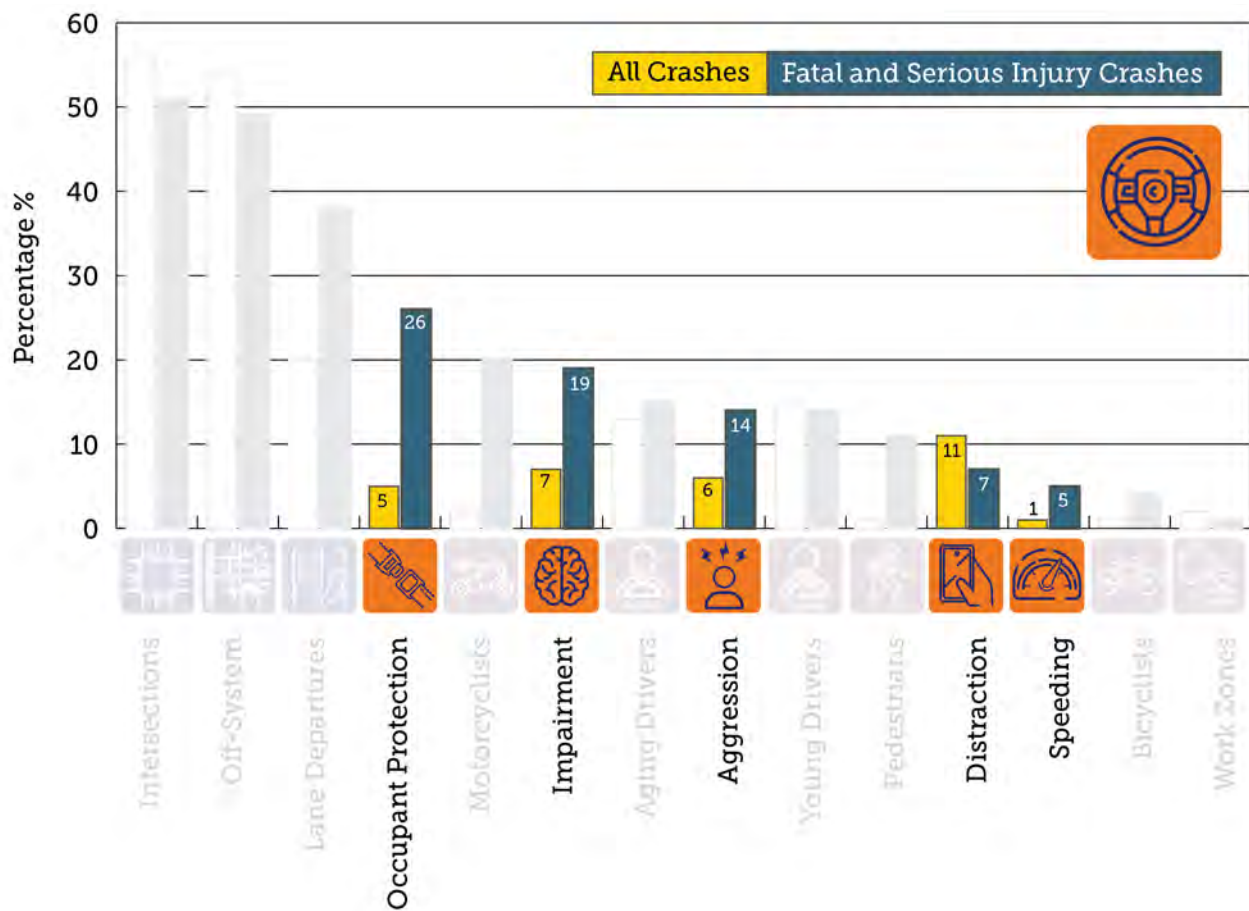


Figure 6-1: Percentage of Total & Fatal/Serious Injury Crashes Involving Focus Areas

The Safe Driving Emphasis Area focuses on different driver behaviors that result in severe crashes. The Focus Areas within this Emphasis Area have high potential for reducing or eliminating future severe crashes and include occupant protection, impairment, aggression, speeding, and distraction.

## Occupant Protection



**Focus Area Definition:** Crashes where safety restraints or helmets were not properly used by motor vehicle occupants.

**Focus Area Goal:** Reduce the number of severe crashes that involve improper restraint use or improper helmet use by five percent from the previous year through 2029.

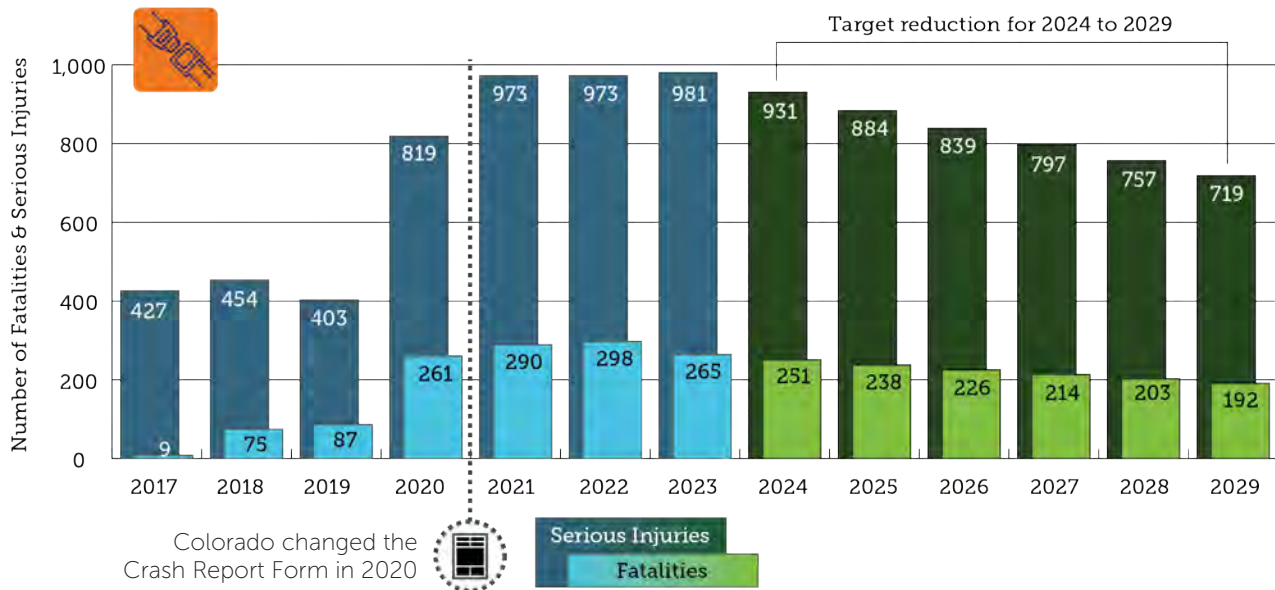


Figure 6-2: Occupant Protection-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Occupants not wearing or improperly using safety equipment (seat belts, helmets, etc.) were involved in five percent of the total crashes from 2019-2023, yet represent 26% of fatal and serious injury crashes, underpinning the severity of these crashes. The fatalities and serious injuries remain even between 2021 and 2023. Unrestrained fatalities and serious injuries occur more in rural settings (32%) compared to urban (23%), and 30% of the urban fatal and serious occupant protection-related crashes involved a motorcycle.

Restraint use reflects safety culture and starts with the driver. Detailed analysis into The National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS) national database found that driver restraint use is correlated with a reduction in unrestrained child deaths. Specifically, in crashes where a driver was unrestrained, 61% of children killed were also unrestrained. In crashes where a driver was restrained, 30% of children killed were unrestrained.<sup>3</sup> On a related positive note, CDOT's most recent Colorado Seat Belt Study (2024) observed an 88% seat belt usage rate, up 7% over the last decade.<sup>4</sup>

<sup>3</sup> FARS, <https://cdan.dot.gov/DataVisualization/DataVisualization.htm>

<sup>4</sup> CDOT releases seat belt study showing 7% usage increase since 2014 — Colorado Department of Transportation

Proven legislative countermeasures cited by NHTSA include primary enforcement seat belt use laws, increased fines, and strong child passenger safety laws. Effective high-visibility seat belt enforcement, specifically at nighttime, is another countermeasure that works to increase safety restraint use. Law enforcement is permitted to stop drivers under the age of 18 in the Graduated Drivers Licensing (GDL) program or stop a driver if they see a child under the age of 18 improperly restrained in the vehicle. Colorado does not have a primary seat belt law, meaning law enforcement cannot stop a driver over the age of 18 for not wearing a safety restraint. A citation may be given as a secondary offense.<sup>5</sup>

Increasing consistent and proper use of safety restraints presents an opportunity to have a significant positive impact on the fatalities and serious injuries in Colorado. The strategies identified in this Focus Area reflect proven effective actions implemented in other states. The goal is to promote awareness of the benefits of a primary seat belt law and increase support from citizens and legislatures to promote changes. Continued data-driven education, for occupants of all ages, will highlight the safety benefits of safety restraint use and shift the culture and acceptance.

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The Colorado Occupant Protection Task Force advocates for best practices in occupant protection safety. Established to increase awareness of seat belt use and child passenger safety throughout the state, the task force works to develop collaborative relationships and partnerships towards the goals of increasing occupant protection restraint usage and educating about the importance of strengthening existing occupant protection laws.

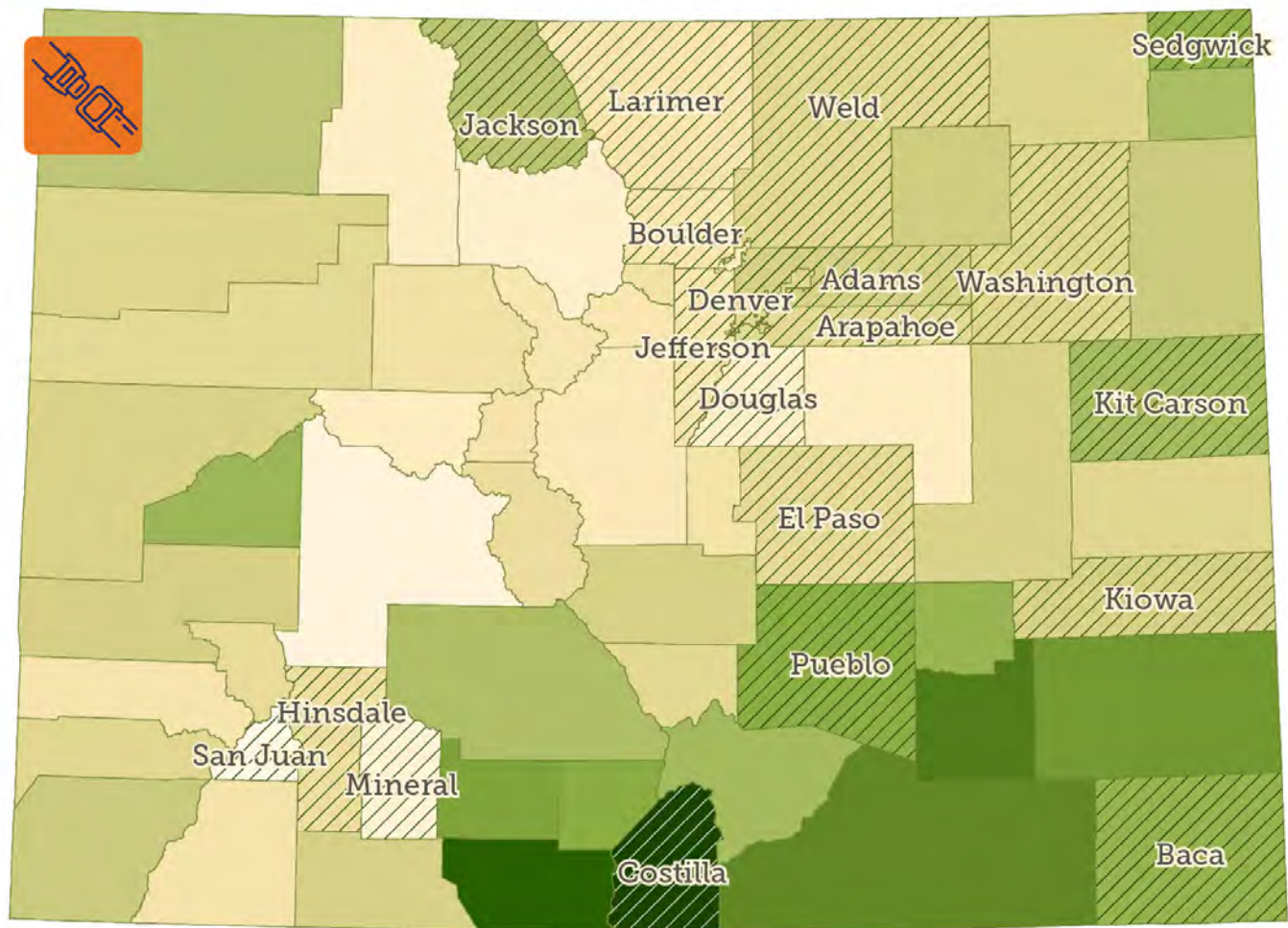
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Figure 6-3 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest occupant protection-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of occupant protection-involved fatalities and serious injuries are the counties along the Front Range. Top counties per capita tend to be rural counties to the north, east and southwest.

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<sup>5</sup> Seat Belts – Colorado Department of Transportation

Figure 6-3: Top Counties of Occupant Protection-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | Adams                | Jackson                 |
| 3    | Arapahoe             | San Juan                |
| 4    | Jefferson            | Costilla                |
| 5    | Weld                 | Baca                    |
| 6    | El Paso              | Kiowa                   |
| 7    | Larimer              | Washington              |
| 8    | Pueblo               | Kit Carson              |
| 9    | Boulder              | Hinsdale                |
| 10   | Douglas              | Sedgwick                |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



## Occupant Protection Strategies

### **SD1: Promote proper use through media campaigns**

**Continue to develop traffic safety media campaigns to support proper use of seat belts, child seats, and helmets.**

State agencies develop and promote educational videos, stories, and data stories on the importance of proper restraint use. This strategy focuses on partnering with additional stakeholders for more widespread dissemination for drivers and motor vehicle occupants.

### **SD2: Educate on primary seat belt law**

**Support educational efforts related to the importance of a primary seat belt law.**

This strategy promotes national research supporting the effectiveness of a primary seat belt law to educate legislators and safety partners. Collaboration with the Colorado Occupant Protection Task Force and similar safety partners is essential to advancing this strategy.

## Impairment



**Focus Area Definition:** Crashes where the driver is under the influence of alcohol, marijuana, or other drugs and is suspected, observed, or tested for impairment in the field by law enforcement.

**Focus Area Goal:** Reduce the number of severe crashes that involve impairment by five percent from the previous year through 2029.

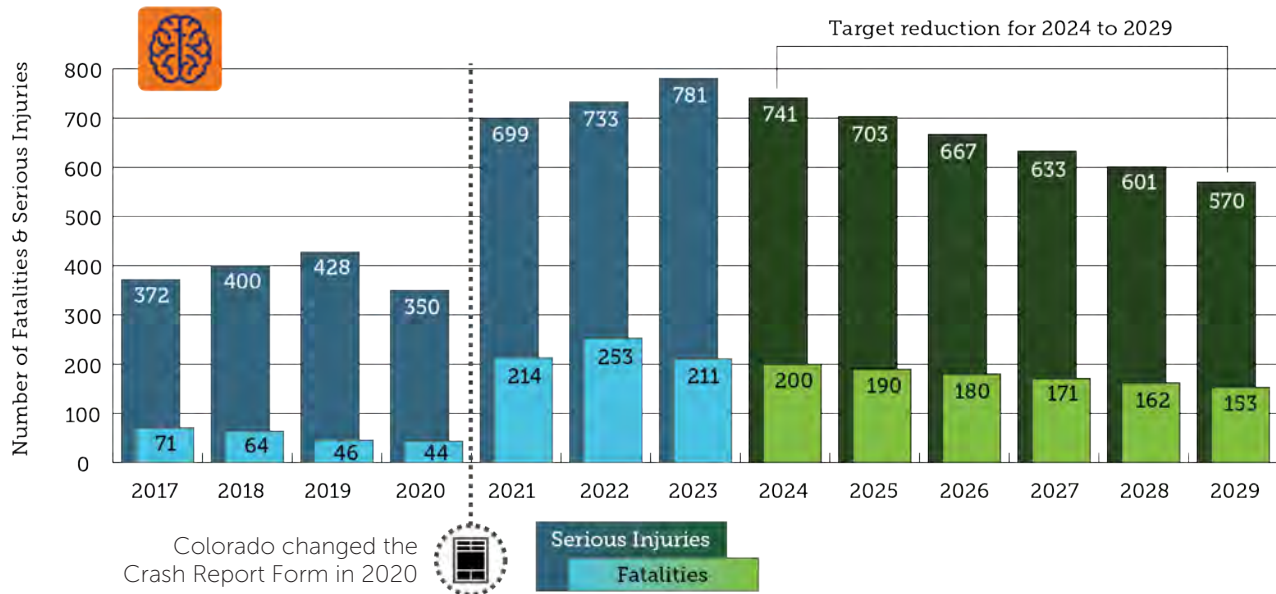


Figure 6-4: Impairment-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Impairment-involved fatalities and serious injuries increased 9% between 2021 and 2023, with the fatalities peaking in 2022 (Figure 6-4). Impairment was involved in 7% of all crashes but was involved in 19% of fatal and serious injury crashes, underscoring the severity of this Focus Area. Younger drivers, between the ages of 20 and 34, represent a higher proportion of the fatalities and serious injuries. Male drivers and motorcyclists are also overrepresented in the crash data. Motorcyclists make up 2.5% of all impairment-related crashes but 13.0% of the fatal and serious injury impairment-related crashes.

Although 68% of impairment-involved crashes occur in urban areas compared to 32% in rural areas, rural crashes are disproportionately severe—45% of all fatal and serious injury impairment-involved crashes take place in rural areas. In these impairment-involved crashes in rural areas, 76% of the fatalities and serious injuries are associated with lane departure crashes, and 47% occur on dark, unlighted roads. Impaired crashes most commonly occur on Friday, Saturday, and Sunday evenings between the hours of 6:00 p.m. and 1:59 a.m.

Driver impairment is reported based on the responding officer’s judgment and, therefore, may be underreported in Colorado crash data. Fatal crashes are the exception, as toxicology is run on all fatal crashes in the state. Alcohol continues to be the primary cause of impairment, yet polydrug use (the combination of two or more drugs including medications) is a growing concern related to impairment in the state. The Colorado Department of Public Safety noted that polydrug detection among all driving under the influence (DUI) cases more than doubled from 2016 to 2020—rising from 8% to 18%.<sup>6</sup>

Legislative and licensing countermeasures such as lower Blood Alcohol Concentration (BAC) levels, minimum drinking age laws, and administrative license revocation or suspension can be employed to discourage impaired-driving behaviors. Law enforcement agencies are important participants in preventing impairment-involved crashes, with high-visibility saturation patrols, alcohol measurement devices, and sobriety checkpoints noted as proven strategies to reduce impairment-related crashes.<sup>7</sup> Community groups, such as Regional Impaired Driving Task Forces, can help to change the local safety culture regarding impaired driving, particularly in rural areas and resort locations.

Several safety stakeholders are currently working to address impaired driving challenges. The Colorado State Patrol uses historical crash data to identify dates and locations for high-visibility enforcement strategies to efficiently and effectively prevent impaired-involved crashes. Additionally, the Colorado Task Force on Drunk & Impaired Driving continues to monitor the emerging challenges associated with impaired driving. The strategies in the SHSP complement these partner efforts and promote continued education and enforcement.

The mission of the Colorado Task Force on Drunk and Impaired Driving is to support the prevention, awareness, enforcement, and treatment of drunk and impaired driving in Colorado through strong partnerships with public, private, and non-profit organizations. Members of the task force are designated by statute and represent various state agencies, the law enforcement and legal community, safety advocates, private businesses, and citizens.

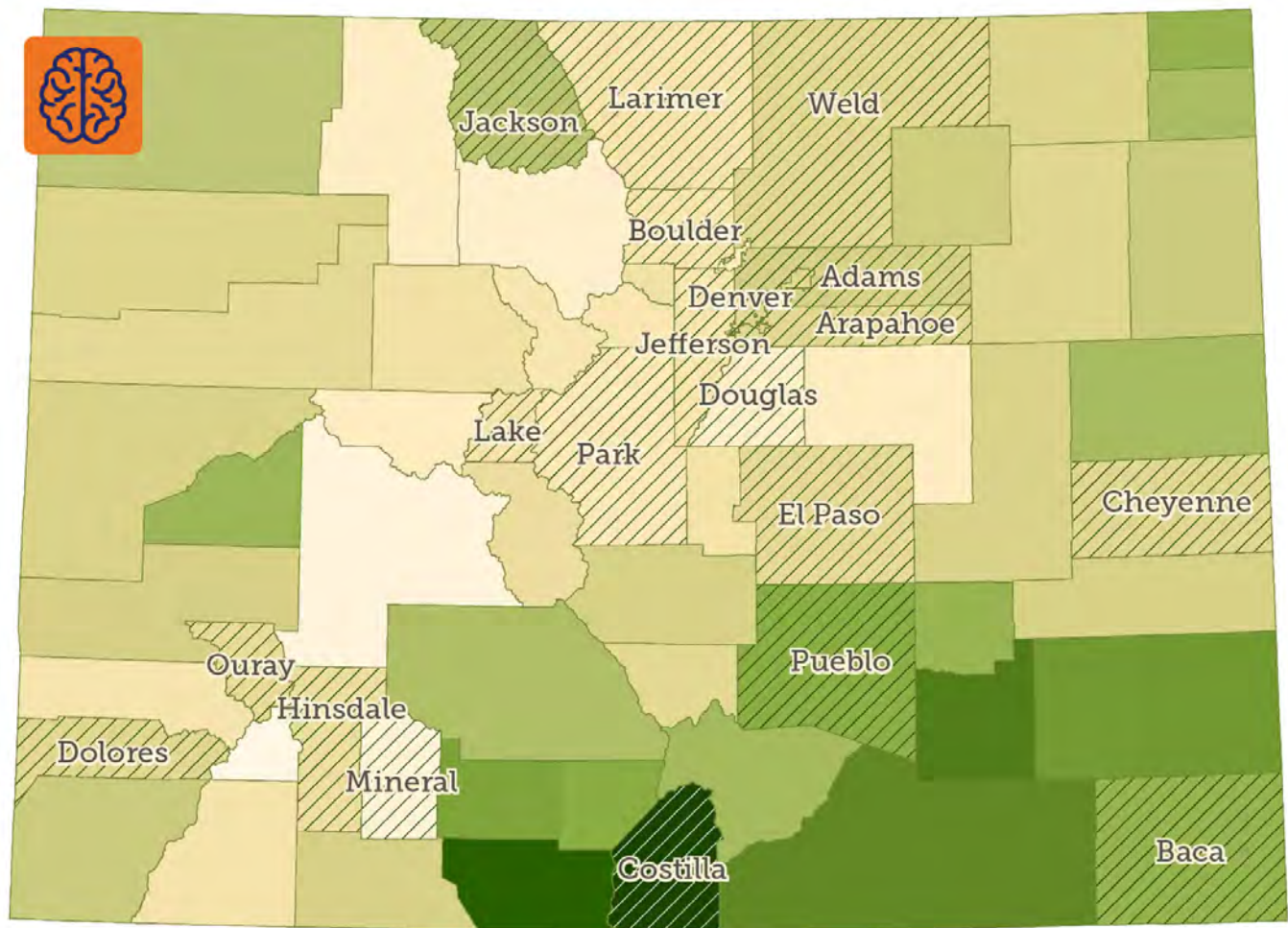
Figure 6-5 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest impairment-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of impairment-involved fatalities and serious injuries are counties along the Front Range. Top counties per capita tend to be rural counties in Eastern Colorado and Southwestern Colorado.

As with many of the Safe Driving Focus Areas, counties along the Front Range have the highest numbers of impairment-related fatalities and serious injuries while the more rural counties have higher rates per capita.

<sup>6</sup> Rosenthal, A. (2023). “Driving Under the Influence of Drugs and Alcohol. A Report Pursuant to C.R.S. 24-33.5-520.” Office of Research and Statistics, Division of Criminal Justice, Colorado Department of Public Safety.

<sup>7</sup> Kirley, B. B., Robison, K. L., Goodwin, A. H., Harmon, K. J. O’Brien, N. P., West, A., Harrell, S. S., Thomas, L., & Brookshire, K. (2023, November). Countermeasures that work: A highway safety countermeasure guide for State Highway Safety Offices, 11th edition, 2023 (Report No. DOT HS 813 490). National Highway Traffic Safety Administration.

Figure 6-5: Top Counties of Impairment-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | El Paso              | Jackson                 |
| 3    | Adams                | Cheyenne                |
| 4    | Arapahoe             | Baca                    |
| 5    | Jefferson            | Costilla                |
| 6    | Weld                 | Lake                    |
| 7    | Larimer              | Ouray                   |
| 8    | Boulder              | Hinsdale                |
| 9    | Pueblo               | Dolores                 |
| 10   | Douglas              | Park                    |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



## Impairment Strategies

### **SD3: Provide polydrug impairment education**

Educate the public on the impacts of polydrug use.

This strategy is focused on gathering more data linking polydrug use to driver ability to operate a vehicle and sharing these findings through public communication campaigns. Enhanced data will be useful to educate the public on the impacts of multiple drugs, including both prescription and recreational drugs, on the impacts of driving.

### **SD4: Prioritize high-risk impaired driving corridors**

Identify high-risk corridors overrepresented in the crash data to make data-driven decisions to combat impaired driving.

The purpose of this strategy is to geolocate impairment-involved crashes to continue to assist law enforcement agencies with enforcement efforts. The data mapping can also support additional partners to collaborate on area-specific educational campaigns.

### **SD5: Continue high-visibility enforcement**

Continue to deploy data-driven high visibility impaired driving enforcement activities to deter impaired driving-related crashes.

This is a proven effective strategy that state and local law enforcement agencies deploy across the state. High-visibility enforcement increases the perception of getting caught and arrested, and deters impaired driving. Employing this strategy requires continued emphasis on collaboration between state and local agencies.

## Aggression



**Focus Area Definition:** Crashes where the driver engaged in aggressive driving behaviors, such as tailgating, cutting off other drivers, weaving behaviors, and other careless driving actions like disobeying traffic laws.

**Focus Area Goal:** Reduce the number of severe crashes that involve aggression by five percent from the previous year through 2029.

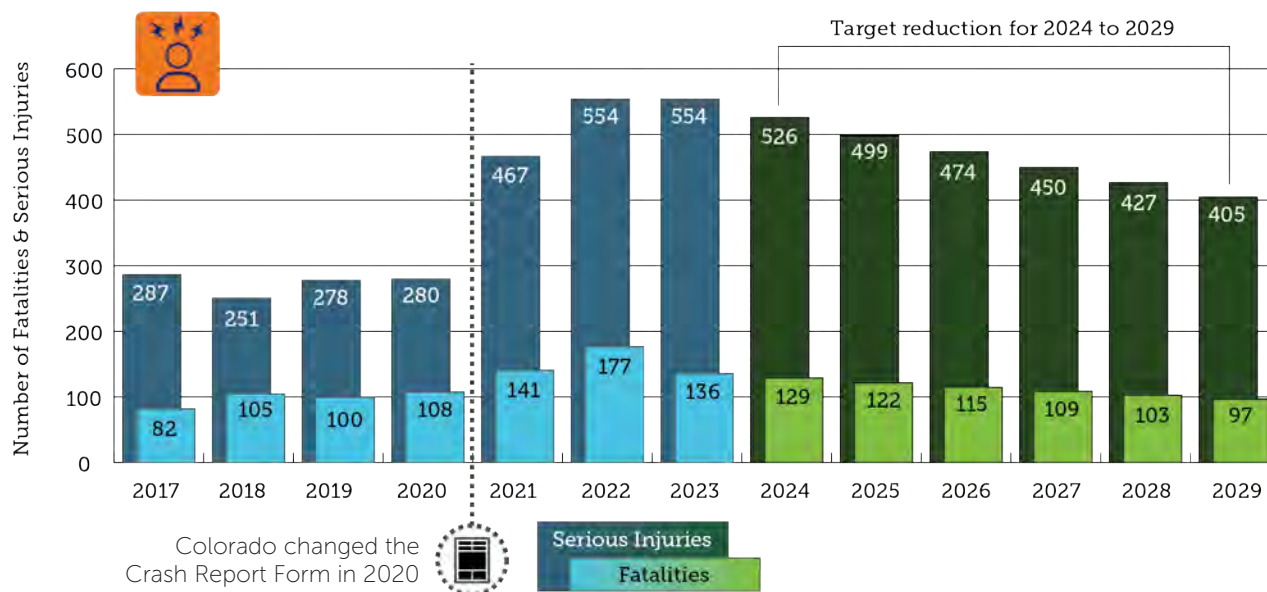
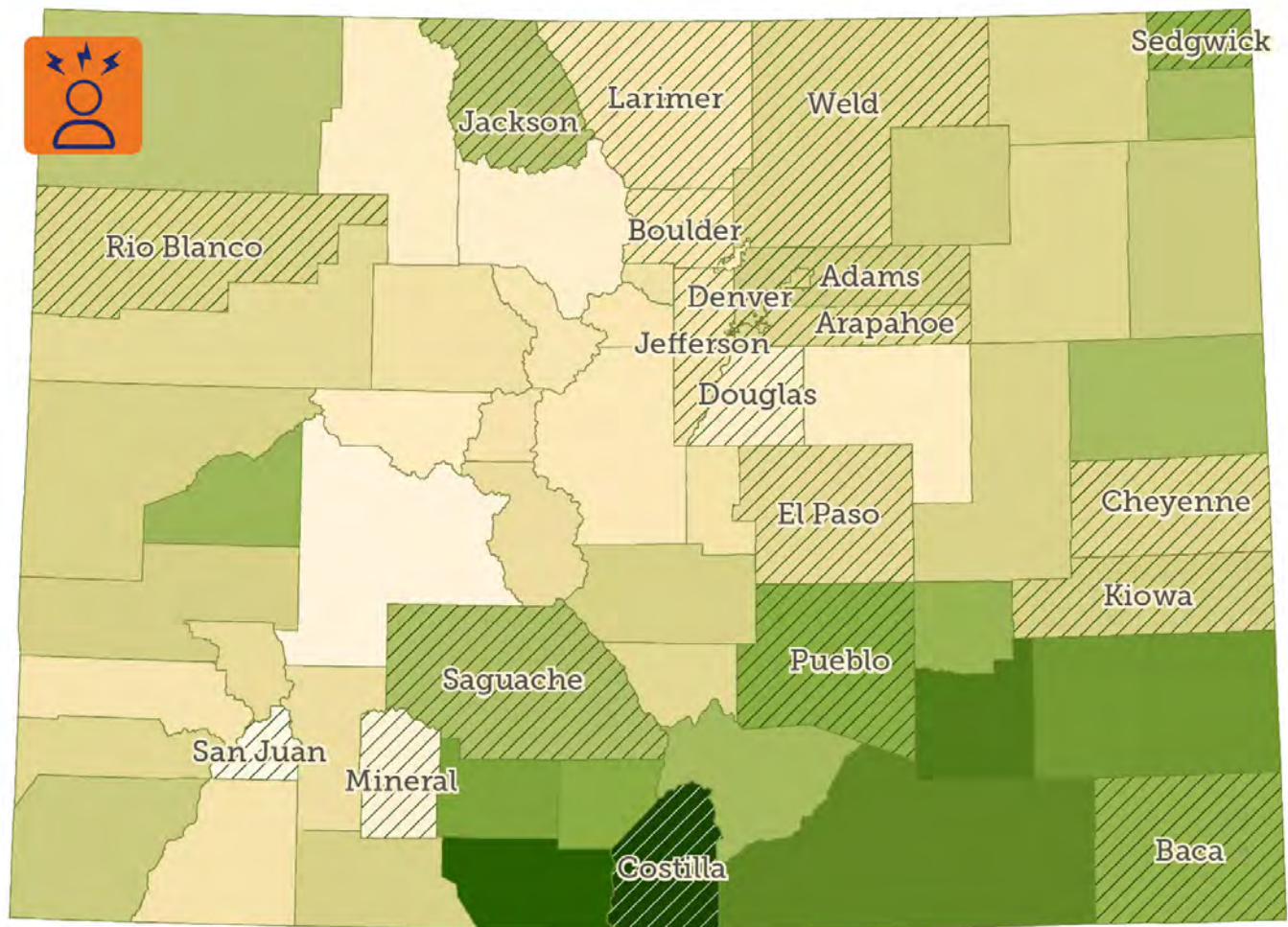


Figure 6-6: Aggressive Driving-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Aggressive driving accounts for 6% of all crashes but 14% of fatal and serious injury crashes. Figure 6-1 illustrates the seriousness of driver aggression, with aggression-involved fatalities and serious injuries increasing 13% between 2021 and 2023. Young drivers (ages 15 to 20) were involved in 19% of all fatal and serious injury crashes related to aggressive driving despite making up only 5% of licensed drivers in Colorado. This means they are nearly four times more likely to be involved in these types of crashes compared to their share of the driving population. Drivers aged 21 to 64 are involved in these crashes at rates proportionate to the share of licensed drivers. Older drivers (65 and up) make up 21% of licensed drivers, but were involved in only 8% of these crashes – meaning they are much less likely to be involved in aggression-related fatal or serious injury crashes.<sup>8</sup> Both aggression-involved crashes and those resulting in fatalities or serious injuries are shown to occur nearly equally in urban and rural settings. Just over 50% of the aggression-related crashes occurred off-system, and 47% occurred at intersections.

<sup>8</sup> Federal Highway Administration, Highway Statistics 2023, Table DL-22

Figure 6-7: Top Counties of Aggression-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Jackson                 |
| 2    | Adams                | San Juan                |
| 3    | El Paso              | Mineral                 |
| 4    | Arapahoe             | Cheyenne                |
| 5    | Weld                 | Baca                    |
| 6    | Jefferson            | Sedgwick                |
| 7    | Larimer              | Kiowa                   |
| 8    | Pueblo               | Costilla                |
| 9    | Boulder              | Saguache                |
| 10   | Douglas              | Rio Blanco              |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 6-7 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest number of aggression-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of aggression-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, the top counties are rural.

Improper use of occupant protection was involved in 10% of aggression-related crashes but 32% of the fatalities and serious injuries. Impairment was a contributing factor to 8% of all aggression-related crashes but 29% of the fatalities and serious injuries. Of the aggression-related crashes, speeding was involved in 2% of all crashes but 7% of fatal and serious injury crashes. Motorcyclists also represent a higher proportion of aggressive driving fatalities and serious injuries, representing 3% of all aggression-related crashes but 29% of the aggression-related fatalities and serious injuries.

These data points emphasize the confounding impact of other behavior-related contributing factors on the severity outcome of crashes. This Focus Area uses multi-prong strategies that address several behaviors. Countermeasures include enforcement efforts related to traffic laws covering speeds and lane changes as actions to address aggressive driving. Encroaching on other vehicles, disobeying traffic signals and signage, and making unsafe lane changes are other examples of aggressive behaviors that can be cited by law enforcement.

## Aggression Strategies

Strategies in this plan seek to highlight the importance of educating the driving public on the seriousness of aggression—both personally as a driver and as drivers in other vehicles avoiding or not engaging with an aggressive driver. Data collection on this type of crash continues to be important to identify specific corridors or regions with higher risk for aggression that can be addressed through enforcement and targeted educational efforts.

### **SD6: Deploy anti-aggressive driving campaigns**

**Develop anti-aggressive driving campaigns focused on populations overrepresented in the crash data.**

This strategy is intended to target educational and awareness campaigns to groups of drivers who represent higher proportions of aggression-involved fatalities and serious injuries. Drivers under the age of 34 and motorcyclists are overrepresented in crash data. Reducing aggressive driving behaviors in these populations provides the greatest opportunity to reduce the number of aggression-related fatalities and serious injuries throughout Colorado.

### **SD7: Prioritize high-risk aggressive driving corridors**

**Identify high-risk corridors overrepresented in the crash data to make data-driven decisions to combat aggressive driving.**

This strategy directs agencies to collect and analyze data to prioritize corridors where a higher percentage of aggression-involved crashes are occurring. Law enforcement agencies can use the data as appropriate to develop enforcement campaigns and employ other strategies in these high-risk corridors. Additionally, this could provide valuable information to identify root causes of behavior on why aggression may be occurring on certain roadways.



## Speeding



**Focus Area Definition:** Crashes where a motor vehicle was traveling over the posted speed limit or at speeds unsafe for conditions.

**Focus Area Goal:** Reduce the number of severe crashes that involve speeding by five percent from the previous year through 2029.

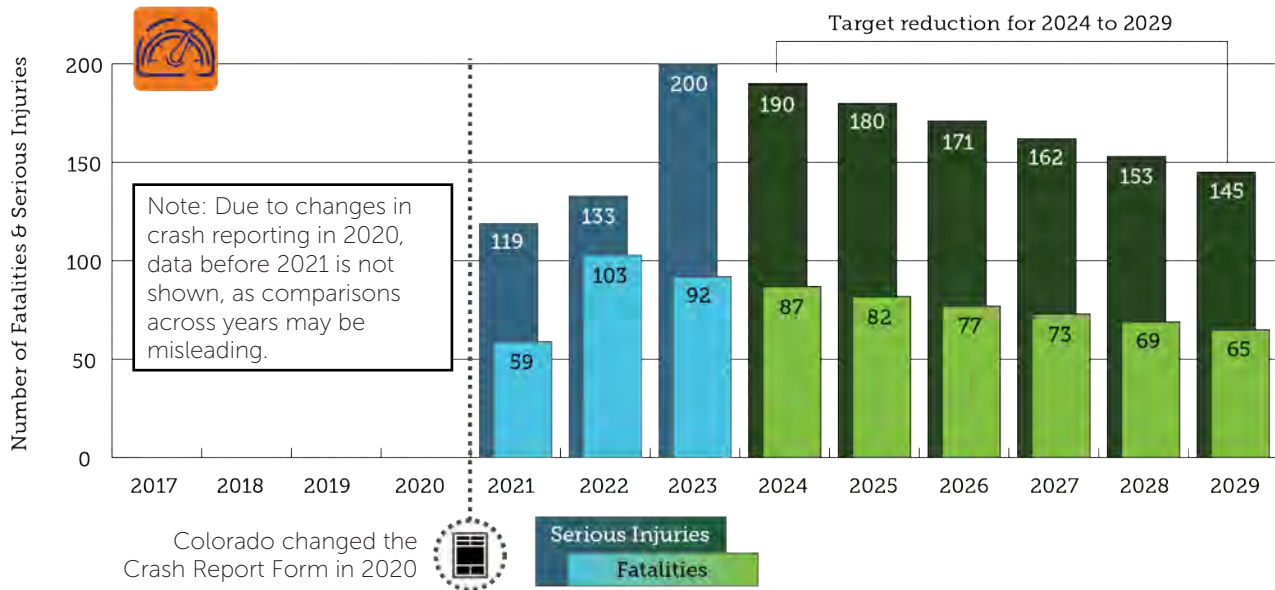


Figure 6-8: Speed-Involved Fatalities and Serious Injuries by Year (2021 to 2023)

Speeding is a topic that can be discussed through various lenses, including the choice to speed and how an environment encourages speeding behavior. The Safe Driving Emphasis Area focuses on the driving behavior, and the Speeding Focus Area emphasizes the driver's responsibility in selecting safe and appropriate speeds. The Safe Roads Emphasis Area (Chapter 8) discusses strategies related to speed management, infrastructure, and roadway environments to address speeding.

Between 2021 and 2023, speeding-involved crashes increased 60%, and fatalities and serious injuries increased 64% (Figure 6-8). These numbers represent one percent of total crashes and five percent of total fatalities and serious injuries in Colorado (refer to Figure 6-1 at the beginning of the chapter). It is important to note the significant data quality issues related to speeding-involved crashes. Crash data is limited to what is visible or known after a crash occurs, but it is thought that speeding is a significant contributor to many of the Emphasis Areas in this plan.

Speeding-involved crashes occur slightly more frequently in rural settings compared to urban, and drivers under the age of 34 are overrepresented in the crash data. Nearly half of the speeding-involved fatal and serious injury crashes occurred in rural areas, which is higher than the percentage of total speeding-involved fatal and serious crashes statewide (37.7%). Of the speeding-involved fatalities and serious injuries, 53% involved lane departure, 53% occurred off-system, 41% occurred at an intersection, and 22% involved young drivers from 15 to 20 years of age.

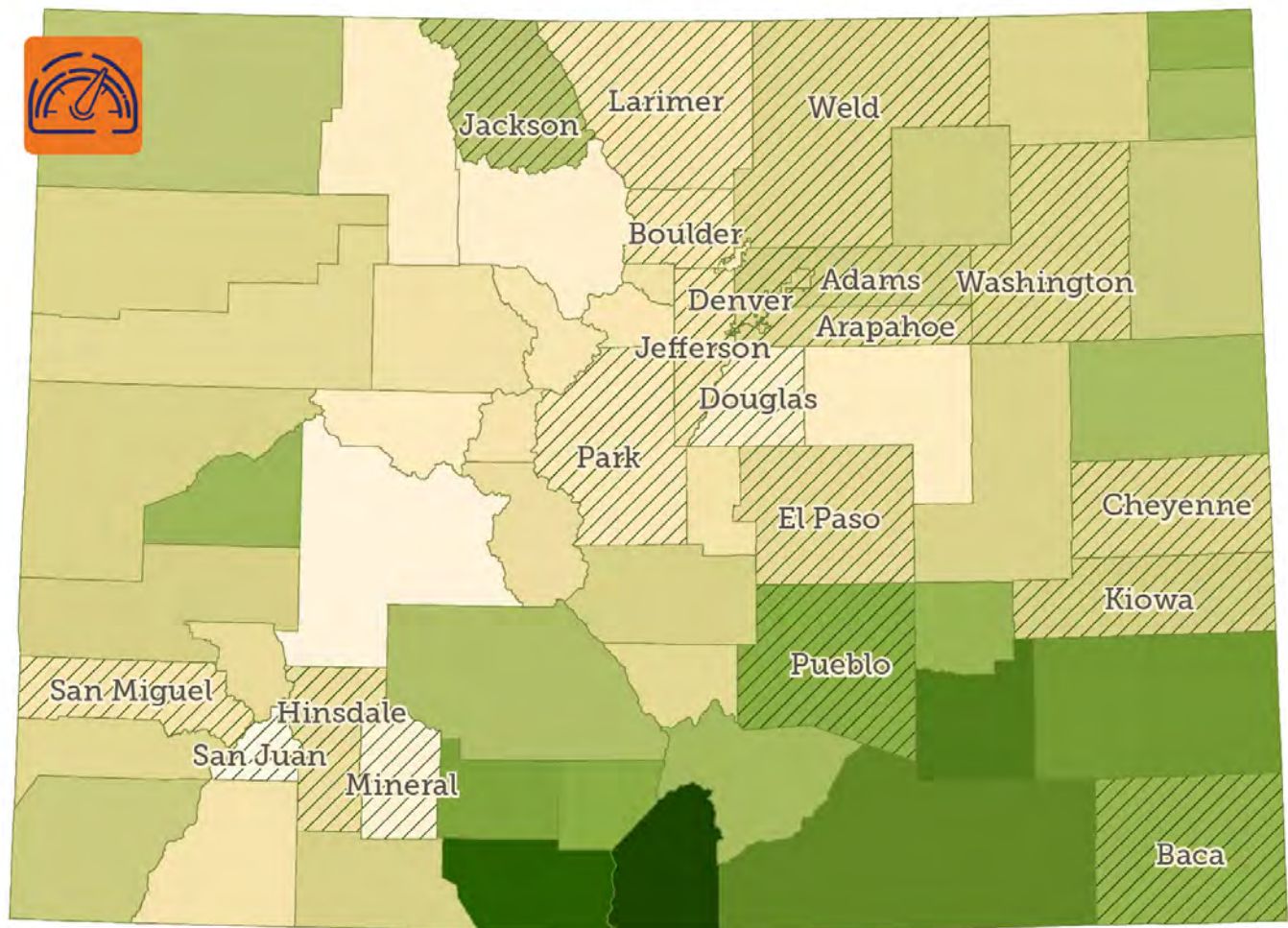
According to the 2024 Colorado Driver Behavior Survey, 69% of Colorado drivers said they drive over the speed limit on main highways, 48% speed on main city or town roads, and 26% speed on neighborhood roads. Of the drivers surveyed, 58% believed they would be stopped by law enforcement on local roads with speed limits of 30 mph, whereas 41% believed they would be stopped on roads with speed limits of 65 mph. This emphasizes that speeding on highways is perceived to be more acceptable. However, highlighting the SSA principle that humans are vulnerable; kinetic energy (which is significantly impacted by speed) is the top contributing factor to crash survivability. As the speed of a vehicle involved in a crash increases, so does the kinetic energy released and the likelihood of the crash resulting in a fatality or serious injury.

NHTSA-promoted countermeasures include a combination of legislation, enforcement, and the use of technologies to address behavior change. The strategies in this plan are intended to help Colorado gain deeper insights into the contributing behavioral factors to speeding-involved crashes and utilize innovative methods for reducing speeding behaviors.

Strategies include geolocating crashes and combining datasets then disseminating data analysis results to safety partners, such as law enforcement, to use for their education and enforcement activities. Additionally, new technologies continue to emerge to assist with data collection and enforcement. This plan promotes using information gleaned from the CDOT's Automated Speed Enforcement Program to expand this Emphasis Area's future activities.

In 2023, the Governor signed into law SB23-200: Automated Vehicle Identification Systems. This act expands the methods by which the state, a county, a city and county, or a municipality (jurisdiction) may deliver a notice of violation when a traffic violation is detected through the use of an automated vehicle identification system. The "speed camera" bill offers an important tool for communities to encourage safe driving behavior. This was updated with SB24-195 which changed Colorado Revised Statute 42-4-110.5, adding additional clarification regarding the protection of Vulnerable Road Users (VRUs).

Figure 6-9: Top Counties of Speeding-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | El Paso              | Mineral                 |
| 2    | Jefferson            | Baca                    |
| 3    | Adams                | San Juan                |
| 4    | Denver               | Jackson                 |
| 5    | Douglas              | Hinsdale                |
| 6    | Arapahoe             | Kiowa                   |
| 7    | Larimer              | Washington              |
| 8    | Boulder              | Cheyenne                |
| 9    | Weld                 | San Miguel              |
| 10   | Pueblo               | Park                    |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 6-9 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest speeding-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of speeding-involved fatalities and serious injuries are the counties along the Front Range. Top counties per capita tend to be rural counties along the Eastern Plains and Southwestern Colorado.

## Speeding Strategies

### **SD8: Prioritize high-risk speeding locations**

**Identify high-speeding-risk corridors overrepresented in the crash data and evaluate overlap between speeding and other high-risk driving behaviors.**

This strategy is intended to increase collection and analysis of speeding-related data and improve understanding of the linkages to other Focus Areas and identify locations where speeding occurs more frequently. Data collected under this strategy can also assist with illustrating connections between speeding and other high-risk driving behaviors within identified corridors.

### **SD9: Deploy speed safety camera systems**

**Use the results of a speed safety camera pilot program to make data-driven decisions on future installations.**

Under Colorado Revised Statute 42-4-110.5, Automated Vehicle Identification Systems (AVIS) are permitted for detecting traffic violations. CDOT's Automated Speed Enforcement Program will establish a pilot program to reduce speeding and increase safety in specified corridors. Pilot locations include work zones with two or more lanes of traffic in one direction. This strategy will examine the results of the pilot locations to understand the scope of potential applications related to speeding-involved crashes.



# Distraction



**Focus Area Definition:** Crashes where the driver was distracted by factors either inside or outside the vehicle.

**Focus Area Goal:** Reduce the number of fatal and serious injury crashes that involve distraction by five percent from the previous year through 2029.

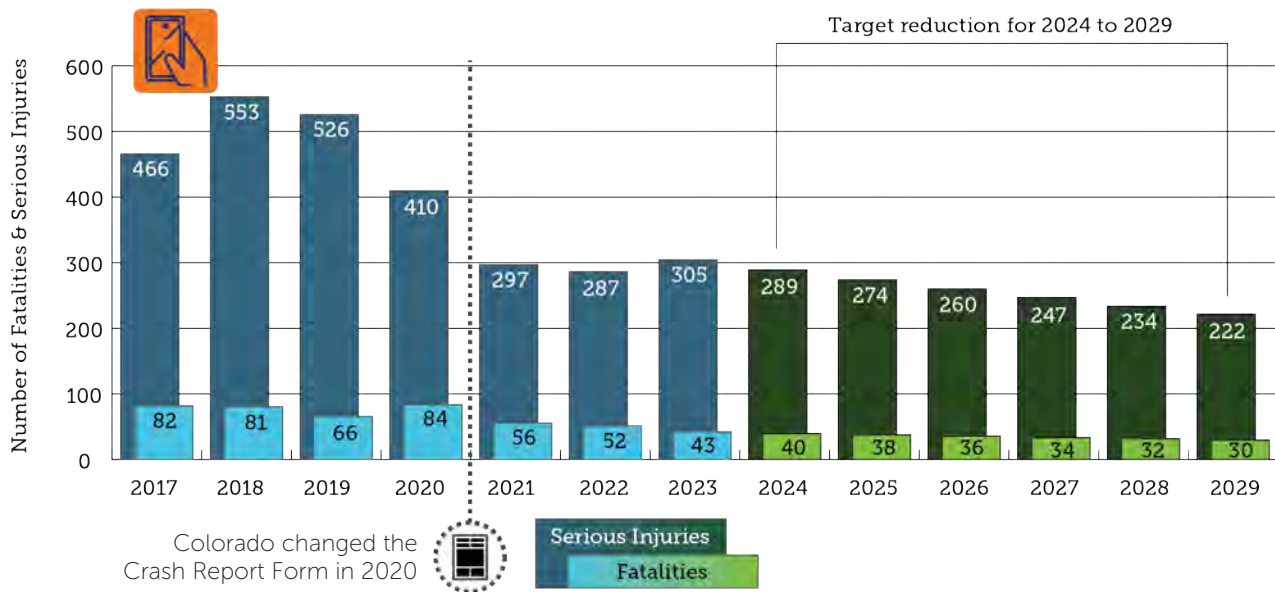
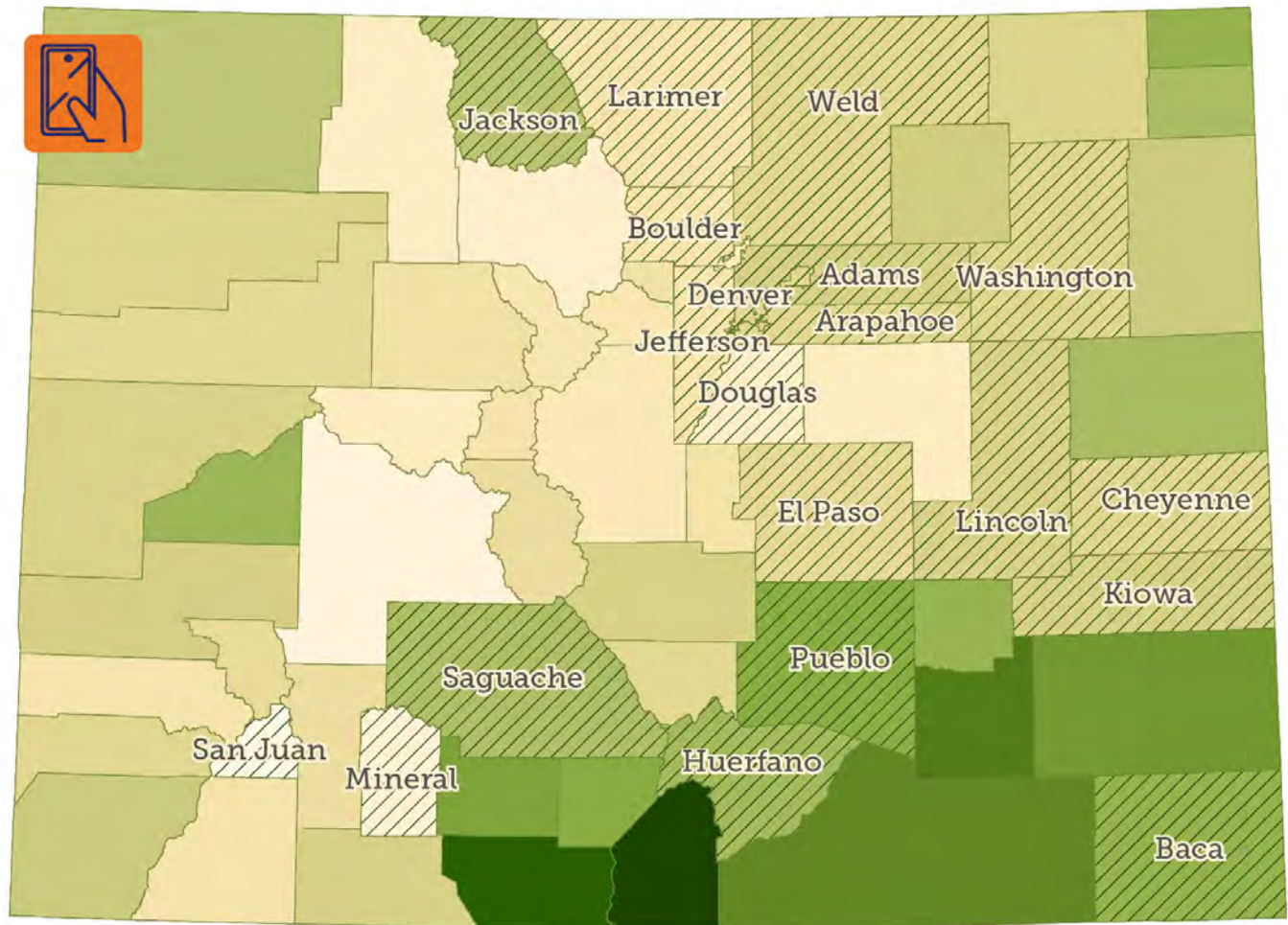


Figure 6-10: Distracted Driving-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Because distraction has to be observed by a responding officer for it to be reported on the crash form, distraction-involved crashes are likely underreported, particularly for crashes resulting in a fatality or serious injury. Figure 6-10 illustrates that crashes involving distraction resulting in a fatality have trended down over the past three years, while serious injuries have remained relatively stable. In 2023, 348 people were killed or seriously injured in distraction-involved crashes.

Figure 6-11 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest distraction-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of distraction-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, rural Eastern Plains and Southwest Colorado counties are represented.

Figure 6-11: Top Counties of Distraction-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | Arapahoe             | Kiowa                   |
| 3    | El Paso              | Cheyenne                |
| 4    | Adams                | Washington              |
| 5    | Weld                 | Jackson                 |
| 6    | Jefferson            | Lincoln                 |
| 7    | Boulder              | Huerfano                |
| 8    | Larimer              | San Juan                |
| 9    | Douglas              | Saguache                |
| 10   | Pueblo               | Baca                    |

#### Map Legend

##### Weighted TDI Score

Low

High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

While distraction-involved crashes overall are more common in urban areas (75%), the most severe outcomes—fatal and serious injury crashes—occur disproportionately in rural areas. Nearly half (48%) of distraction-involved fatal and serious injury crashes occur in rural settings, even though rural areas account for only 25% of all distraction-involved crashes and 38% of all fatal and serious injury crashes. This indicates that distraction-related crashes are more likely to result in severe outcomes when they occur in rural areas. Figure 6-12 visualizes this disparity by comparing the urban and rural distribution of all crashes, fatal and serious injury crashes, distraction-involved crashes, and distraction-involved severe crashes. The top five distraction-related fatal and serious injury crashes are with a fixed object, rear-end, broadside, rollover or overturn, and with a VRU. These crashes also frequently overlap with other Focus Areas—53% occurring at intersections, 50% occur off-system, 18% involve a younger driver, and 17% involve lane departure.

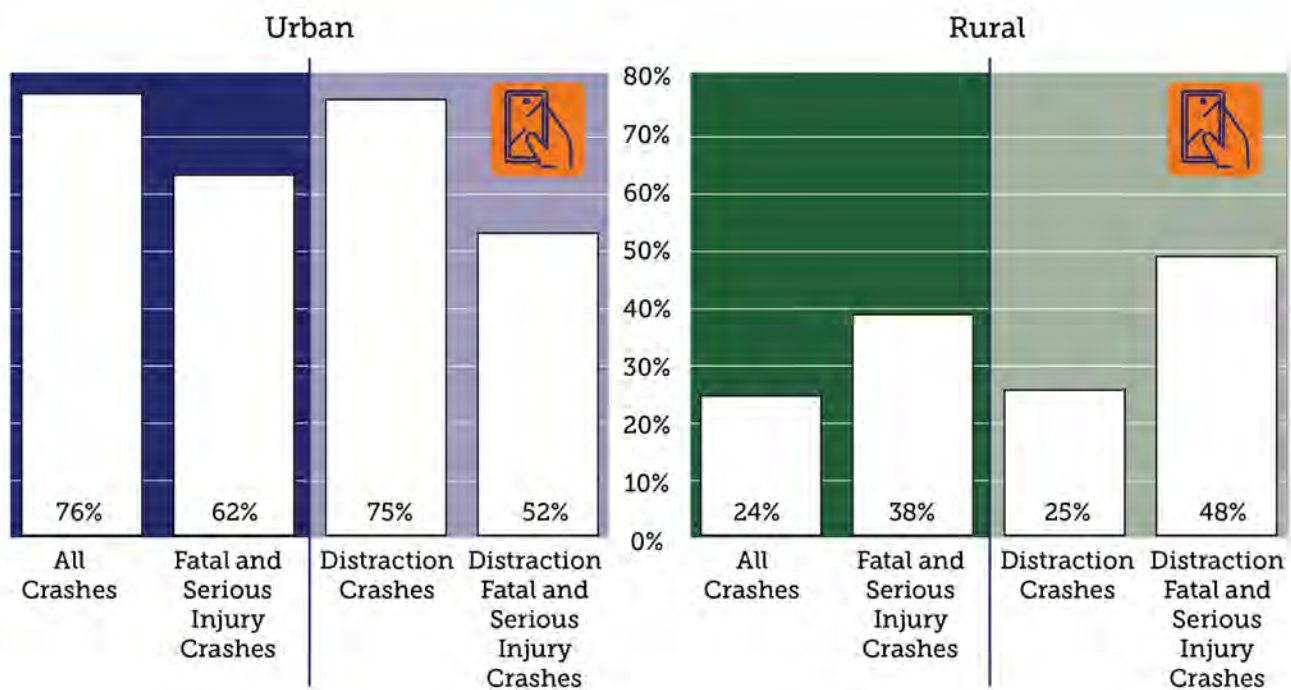


Figure 6-12: Urban and Rural Distribution of Distraction-Related Crashes (2017-2023)

The National Highway Traffic Safety Administration’s (NHTSA) Countermeasures That Work highlights enforcement, legislation, and licensing as countermeasures that are proven to address distraction-involved crashes. Colorado has taken great strides in this direction by passing a state law that prohibits drivers from using mobile electronic devices while driving (hands-free technologies are permitted). The law went into effect on January 1, 2025, and therefore, strategies within this Focus Area will seek to monitor the impact of the law over the next five years.

While the strategies in this plan focus on education related to legislation and promoting safe driver choices around use of mobile phones while driving, there are many other influences that may impact a person’s attentiveness to the driving task. For example, in the 2024 Colorado Driver Behavior Survey when drivers were asked what distractions were present in the last 7 days, 73% of respondents admitted to eating food or drinking a beverage while driving. Other influences, like visitors distracted by Colorado’s beautiful vistas or distractions within the vehicle such as other passengers, are difficult to anticipate and prevent. Collecting more information to better understand the scope

of the problem is also important to this plan, as information gleaned from data will enhance future initiatives to address driver distraction.

## Distraction Strategies

### **SD10: Provide education on hands-free law**

**Continue to educate the public on the hands-free law effective January 1, 2025.**

This strategy aims to promote information regarding the new hands-free law to partner agencies and drivers. Ongoing education for new drivers and licensed drivers alike are important in the first years of the law and beyond to maintain awareness and shift driver behavior.

### **SD11: Enhance data collection**

**Continue to enhance data collected related to distraction-involved crashes.**

Distraction may be an underreported contributing factor to crashes. With the passage of the hands-free law in January 2025, law enforcement agencies will be able to collect more information on citations related to using mobile phones while driving. Enhanced data on the number and locations of citations as well as the number and locations of both primary and secondary crashes related to distraction will support identifying next steps for reducing distraction-related crashes. This data collection will also support evaluating the effectiveness of the hands-free law.





## Chapter 7: Safe People



# Introduction

The Safe People Emphasis Area identifies evidence-based practices to improve roadway safety for Vulnerable Road Users (VRUs) and other road users that are at a high risk of traffic fatalities and serious injuries. A VRU is defined as an individual walking, riding bicycles and rideable toys (e.g., scooters or skateboards), using personal mobility devices (e.g., walkers or wheelchairs), or someone on foot working in work zones.

The Safe People Emphasis Area prioritizes targeted infrastructure upgrades, refining policies for safer transportation systems, expanding multimodal transit options, and promoting educational opportunities that encourage best practices to safeguard VRUs and other at-risk users. This Emphasis Area chapter contains the update to Colorado’s VRU Safety Assessment.

## Focus Areas

The Safe People Emphasis Area identifies seven Focus Areas:

Emphasis Area:



Safe People

Focus Areas:



Motorcyclists



Aging Drivers



Young Drivers



Pedestrians



Bicyclists



Work Zones



First Responders



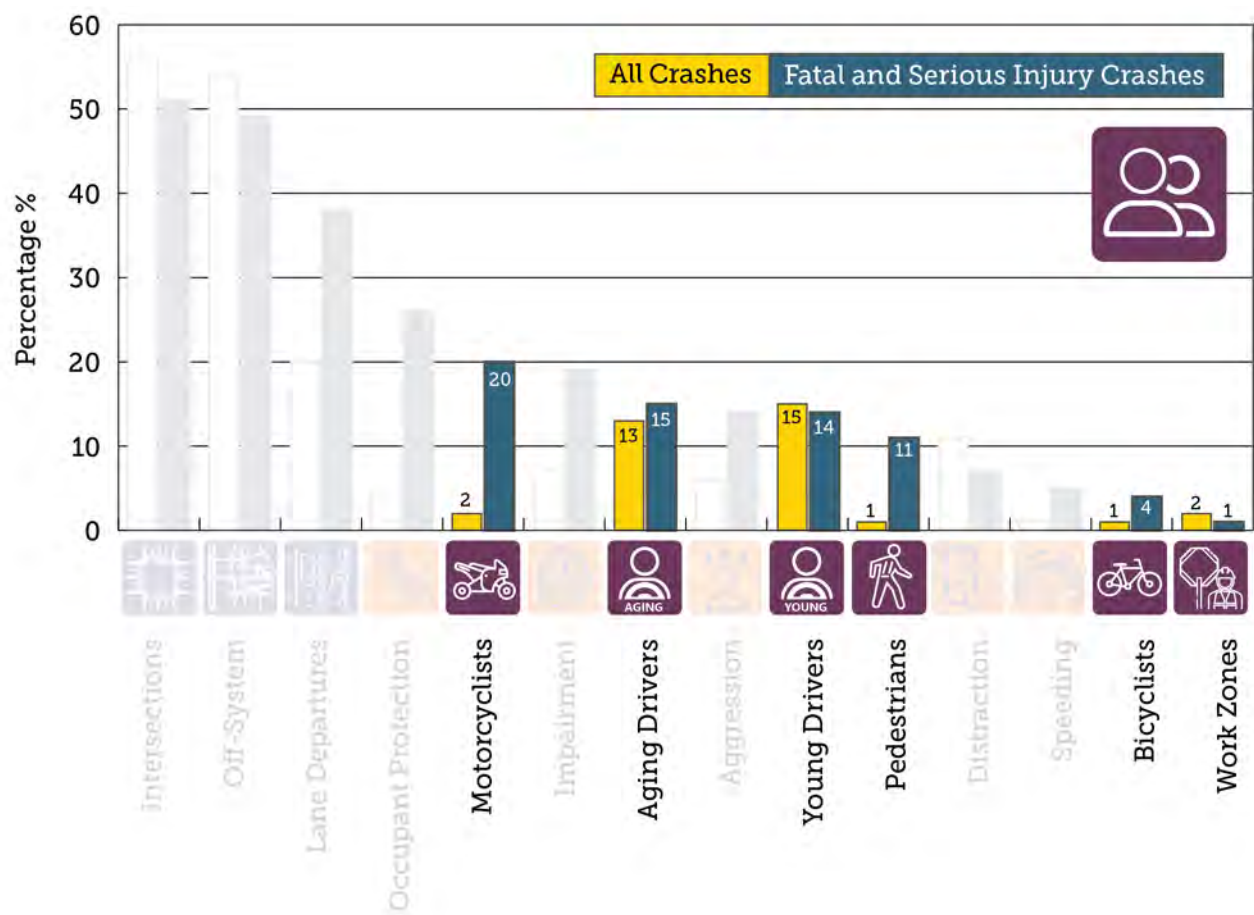


Figure 7-1: Percentage of Total & Fatal/Serious Injury Crashes Involving Focus Areas

The Safe People Emphasis Area focuses on road users most susceptible to fatalities or serious injuries, including motorcyclists, pedestrians, bicyclists, people in work zones, and first responders. This chapter also addresses younger and older drivers, who face a higher risk of serious crashes, as well as those needing personal mobility assistance.

## Motorcyclists



**Focus Area Definition:** Crashes involving motorcyclists.

**Focus Area Goal:** Reduce the number of severe crashes involving motorcyclists by five percent from the previous year through 2029.

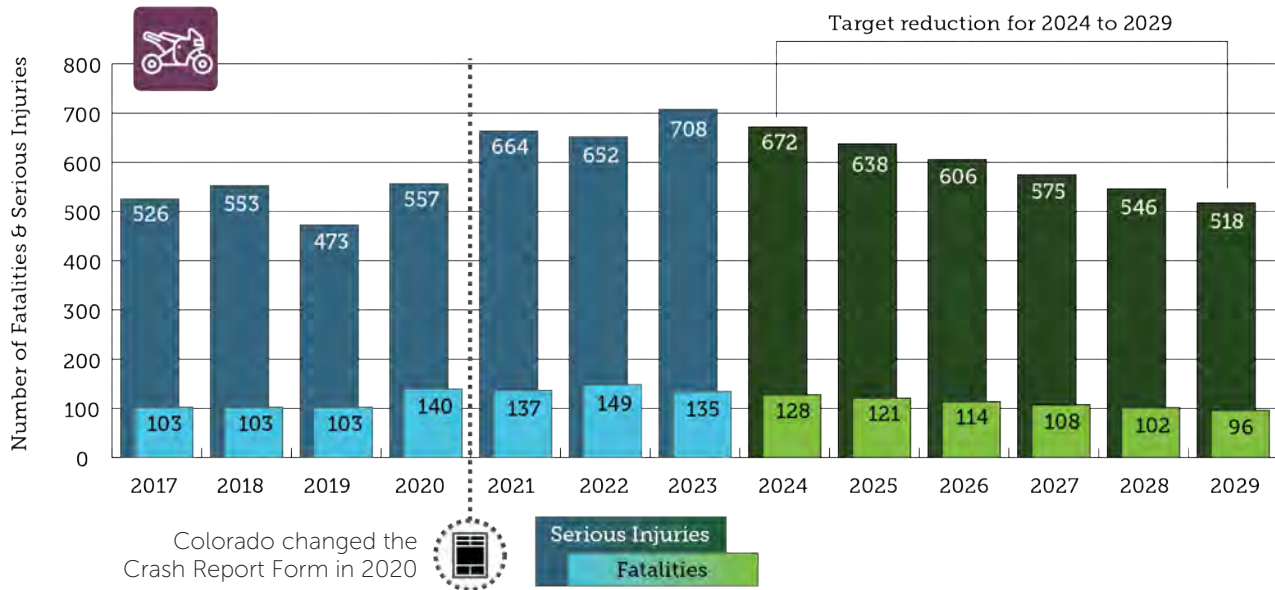


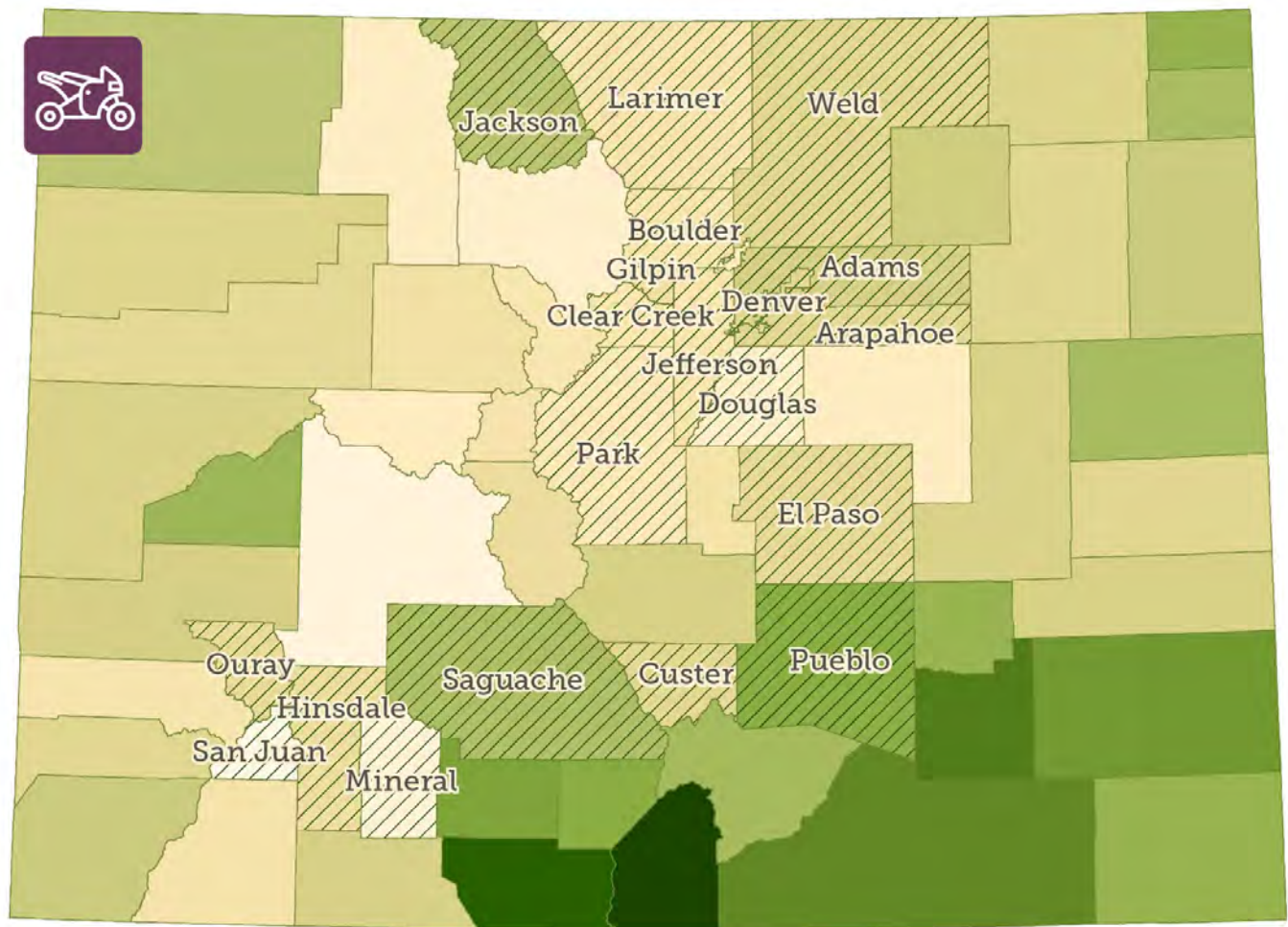
Figure 7-2: Motorcyclist-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Serious injuries among motorcyclists have steadily increased in recent years, despite a slight drop in fatalities in 2023. In 2023, 842 motorcycle fatalities and serious injuries were recorded. Motorcyclists face a disproportionate risk, accounting for 20% of all fatal and serious injury crashes, despite representing only 2% of total crashes and 1% of the total vehicle miles traveled in the state.

Figure 7-3 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest motorcyclist-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of motorcyclist-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, Foothills and Southwest Colorado counties are represented.



Figure 7-3: Top Counties of Motorcyclist-Involved Fatalities and Serious Injuries




| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | San Juan                |
| 2    | El Paso              | Jackson                 |
| 3    | Jefferson            | Hinsdale                |
| 4    | Adams                | Mineral                 |
| 5    | Larimer              | Custer                  |
| 6    | Arapahoe             | Clear Creek             |
| 7    | Boulder              | Gilpin                  |
| 8    | Douglas              | Park                    |
| 9    | Pueblo               | Ouray                   |
| 10   | Weld                 | Saguache                |

#### Map Legend

##### Weighted TDI Score

Low High

 Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



Overturning  
51%



Fixed Object  
39%

Motorcycle crash types vary based on whether the crash was a single-vehicle versus a multi-vehicle crash. When there is a single vehicle motorcycle crash, the most common crash types are overturning (51%) and fixed object crashes (39%) often involving lane departures or loss of control. In contrast, when there are multi-vehicle crashes involving motorcyclists, the predominant crash types are approach turn (28%), broadside crashes (24%), and rear-end (18%), typically occurring on the roadway.



## New Colorado Motorcycle Lane Filtering Law (2024) Effective Date: August 7, 2024

Review Period: Law expires September 1, 2027, pending safety evaluation.



**What's allowed?** Motorcycles can filter between stopped vehicles when:

- » Traffic is fully stopped (e.g., at a red light)
- » Speed does not exceed 15 mph.
- » Passing occurs within the same lane (not on the shoulder).



**What's not Allowed?** Lane splitting (moving between lanes of moving traffic) remains illegal.

Why? Reduces rear-end crash risks for motorcyclists.

In 2024, a major policy shift occurred as Colorado legalized lane filtering, allowing motorcyclists to pass between stopped vehicles in the same lane, traveling in the same direction. This legislation aims to reduce the numbers of motorcyclist fatalities and serious injuries resulting from rear-end crashes. In the years of 2019-2023, rear-end crashes resulted in 385 motorcyclist fatalities and serious injuries. Over the next few years, data will be closely monitored to assess the policy's effect on motorcyclist safety.

## Motorcyclist Strategies

### **SP1: Expand motorcycle operator safety training**

**Expand motorcycle operator safety training campaigns.**

Promote Motorcycle Operator Safety Training (MOST) courses among motorcycle riders and those who wish to learn how to ride a motorcycle. This strategy enhances and expands statewide MOST for both new and experienced riders and supports Colorado MOST's Mission to "provide a safe motorcycling program that supports motorcycle training and lifelong learning, along with motorcycle safety awareness to achieve reductions in motorcycle crashes and related injuries and fatalities."

### **SP2: Increase public awareness of motorcycle safety**

**Increase public awareness of motorcycle safety for all road users.**

This strategy is focused on increasing the general public's awareness of motorcycle safety around the state. Educating all other road users on changing laws and general motorcyclist safety prevents crashes that involve both motorcyclists and other road users.

### **SP3: Improve motorcycle licensing and endorsement**

**Increase the proportion of active motorcycle riders who are legally endorsed to ride in Colorado.**

This strategy aims to increase the number of riders who have an endorsement and have motorcycle safety training by promoting awareness and availability of motorcycle training and of the requirement for motorcyclists seeking to ride in Colorado to have completed training and acquired an endorsement. Increasing the skills of motorcycle riders reduces severe crashes where inexperience is a contributing factor.

### **SP4: Increase helmet and other personal protective equipment (PPE) use**

**Increase motorcyclist PPE use through education and enforcement.**

Helmets and other protective equipment are key to protecting motorcyclists. Through targeted outreach, this strategy promotes the use of PPE when riding a motorcycle. When motorcyclists properly utilize PPE, the risk of a higher-severity crash is reduced.

## Aging Drivers



**Focus Area Definition:** Crashes involving aging drivers aged 65 and older.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries involving aging drivers by five percent from the previous year through 2029.

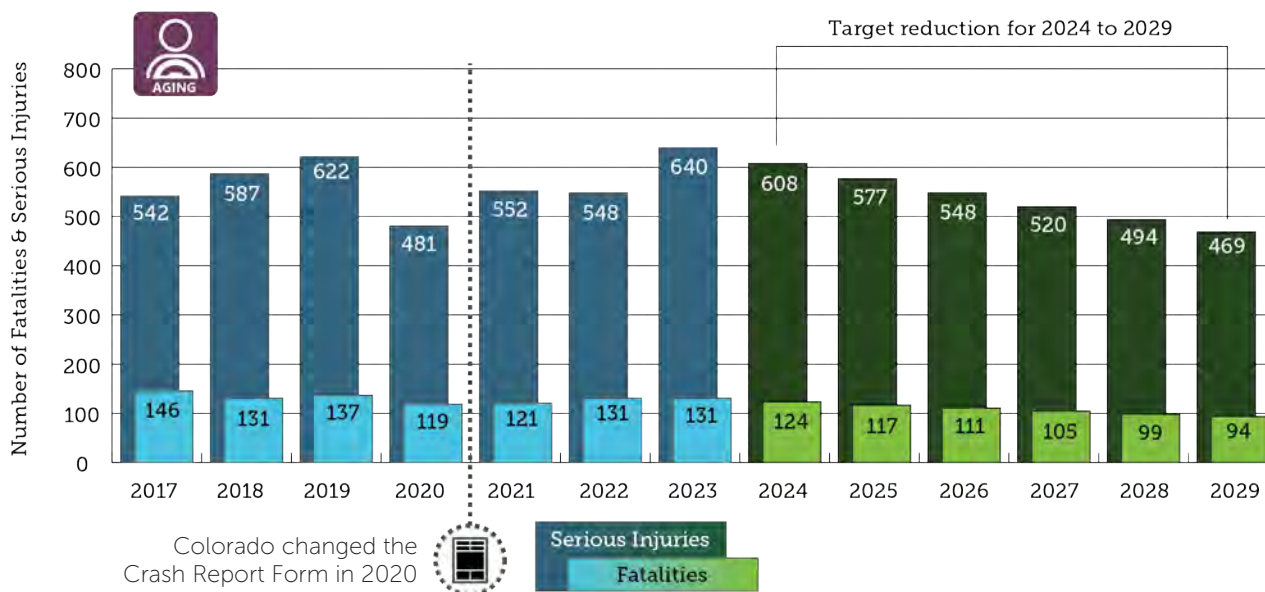


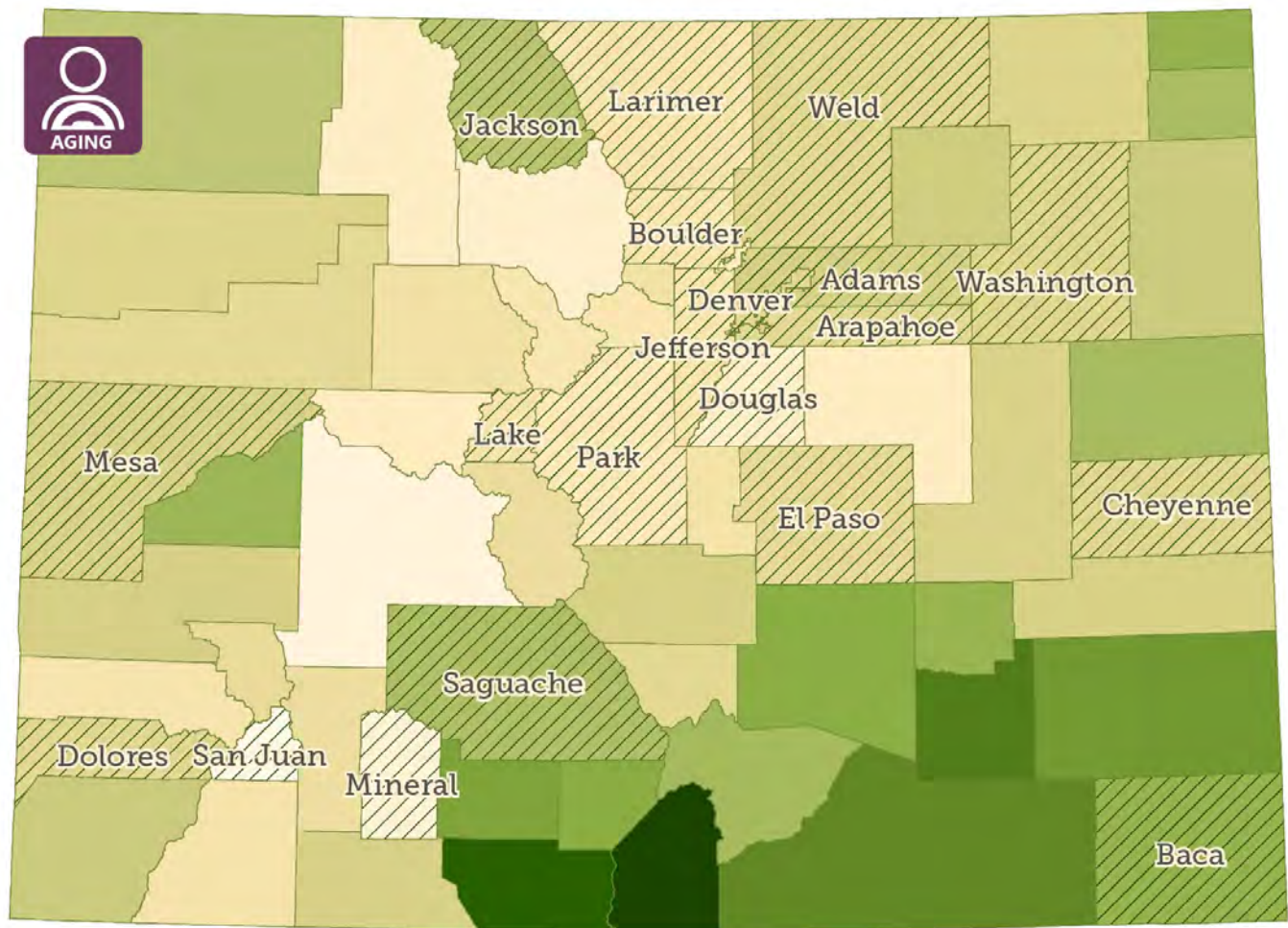
Figure 7-4: Aging Driver-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

As shown in Figure 7-4, fatalities and serious injuries among aging drivers (aged 65 and older) have increased in recent years reaching 771 in 2023. Drivers aged 65 and older make up 16% of the total fatalities and serious injuries, and make up 21% of all licensed drivers. While this does not raise concern for overrepresentation of aging drivers, with the aging population that is described in Chapter 2, it is essential to address safety concerns related to aging drivers to avoid overrepresentation of older drivers in the future.

“As drivers age, their physical and mental abilities, driving behaviors and crash risks all change, though age alone is not a determinate of driving performance. Many features of the current system of roads, traffic signals and controls, laws, licensing practices, and vehicles were not designed to accommodate older drivers.” —NHTSA, 2020



Figure 7-5: Top Counties of Aging Driver-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | San Juan                |
| 2    | El Paso              | Mineral                 |
| 3    | Arapahoe             | Jackson                 |
| 4    | Jefferson            | Washington              |
| 5    | Boulder              | Cheyenne                |
| 6    | Adams                | Baca                    |
| 7    | Larimer              | Dolores                 |
| 8    | Weld                 | Saguache                |
| 9    | Douglas              | Park                    |
| 10   | Mesa                 | Lake                    |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 7-5 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest aging driver-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of aging driver-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, rural Eastern Plains and Southwest Colorado counties are represented.

### Older Drivers and Pedestrians Special Rule

According to the Federal Highway Administration (FHWA), a state qualifies for the Older Drivers and Pedestrians Special Rule “if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age 65 in a state increase during the most recent 2-year period for which data are available.”

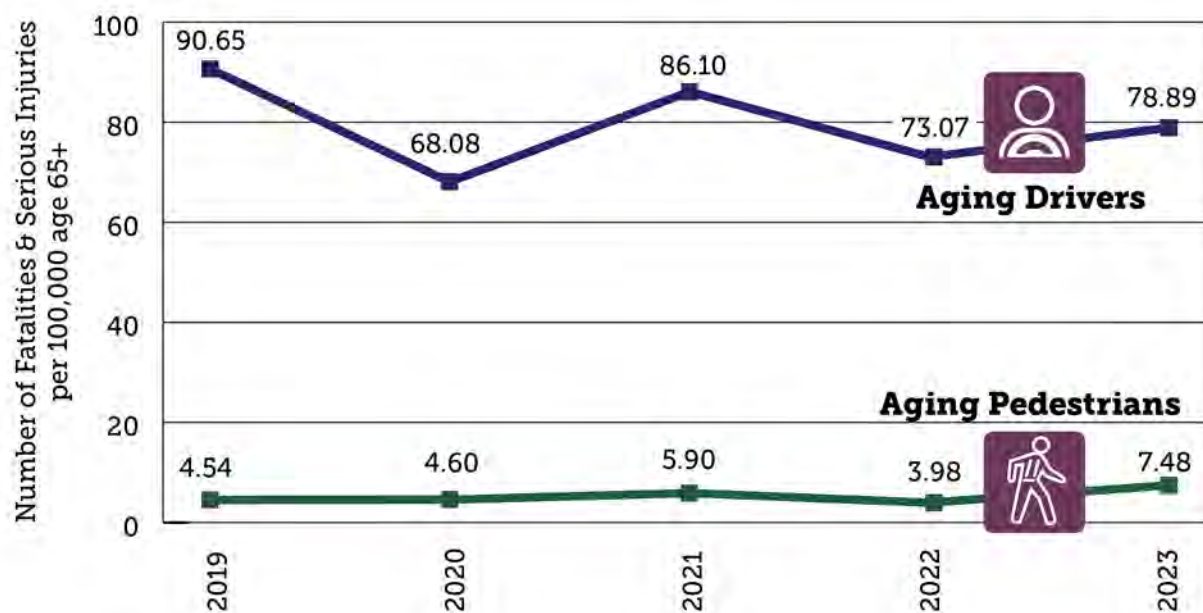


Figure 7-6: Aging Drivers and Pedestrians Fatalities and Serious Injuries Per Capita

Colorado qualifies for the Older Drivers and Pedestrians Special Rule, requiring strategies to address rising fatalities and serious injuries among those 65 and older. Aging driver fatalities have decreased from 2021-2023, while aging pedestrian fatalities have increased from 2021-2023.

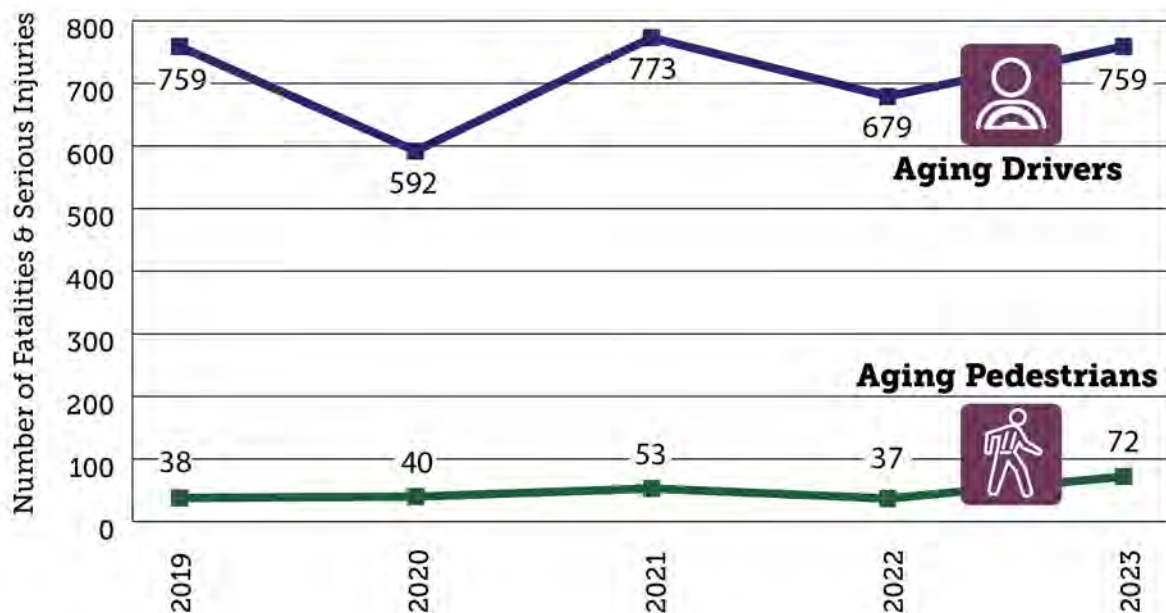


Figure 7-7: Aging Drivers and Pedestrians Fatalities and Serious Injuries

### Aging Driver Strategies

Strategies related to aging drivers and pedestrians are summarized in the following. For additional aging pedestrian strategies, refer to Chapter 8.

#### SP5: Improve visibility of traffic control devices

Enhance road safety by widening striping and markings on high-traffic roads and increasing the visibility of traffic signs to support aging drivers (Aging Drivers Strategy).

Widening striping and increasing the visibility of traffic signs helps aging drivers navigate more easily, compensating for declines in visual acuity and low light contrasts which can be difficult to navigate. These measures enhance confidence, reduce confusion, and prevent crashes.

#### SP6: Improve sight distances

Improve intersection safety by providing proper intersection angles, intersection sight distance, and other design strategies that support aging drivers and pedestrians (Aging Drivers and Pedestrians Strategy).

Improving intersection safety with proper angles, sight distances, and design strategies aids aging drivers and pedestrians to see and react to potential hazards, reducing the likelihood of crashes. These improvements enhance safety by providing clearer visibility and easier navigation, helping drivers and pedestrians make safer decisions.

#### SP7: Expand community-based mobility options

Establish and expand community-based mobility options such as bike-sharing, carpool programs, and on-demand shuttle services in underserved areas to improve access to transportation options for those unable to drive or who choose not to drive (Aging Drivers and Pedestrians Strategy).

Establishing and expanding community-based mobility options, especially in underserved areas, provides essential transportation alternatives for individuals who cannot drive, choose not to drive, or can no longer drive safely, improving their access to jobs, healthcare, and other services. Aging drivers are more likely to cease driving if there are reliable alternatives. These options help reduce reliance on private vehicles, promote environmental sustainability, and improve access to mobility for all members of the community.

#### **SP8: Enhance and expand resources for aging drivers**

**Strengthen programs for aging drivers by increasing the awareness, use, effectiveness, and quality of existing resources. (Aging Drivers Strategy).**

This strategy aims to enhance available resources for aging drivers and their families to evaluate and determine if a person is able to continue driving safely. Promote existing programs and educational opportunities such as individualized driver assessments, written guides for aging drivers and their families, and existing regulations on license testing and renewals for older drivers.



### **Colorado Resources for Aging Drivers**

#### **Stay Safe, Stay Independent**



Colorado offers programs to help aging drivers assess their skills and stay safe on the road:

#### **Fitness-Drive Evaluation**

Occupational therapy assessment for vision, reaction time, and adaptive driving solutions.

#### **Older Driver Safety Guide**

Self-assessment tools, safety tips, and legal info to help drivers make informed decisions.

#### **Drive Smart Colorado**

Workshop and resources to support safe driving habits.

**Learn more: [drivesmartcolorado.com](https://drivesmartcolorado.com)**



## Young Drivers



**Focus Area Definition:** Crashes involving young drivers (aged 15 to 20).

**Focus Area Goal:** Reduce the number of severe crashes involving young drivers by five percent from the previous year through 2029.

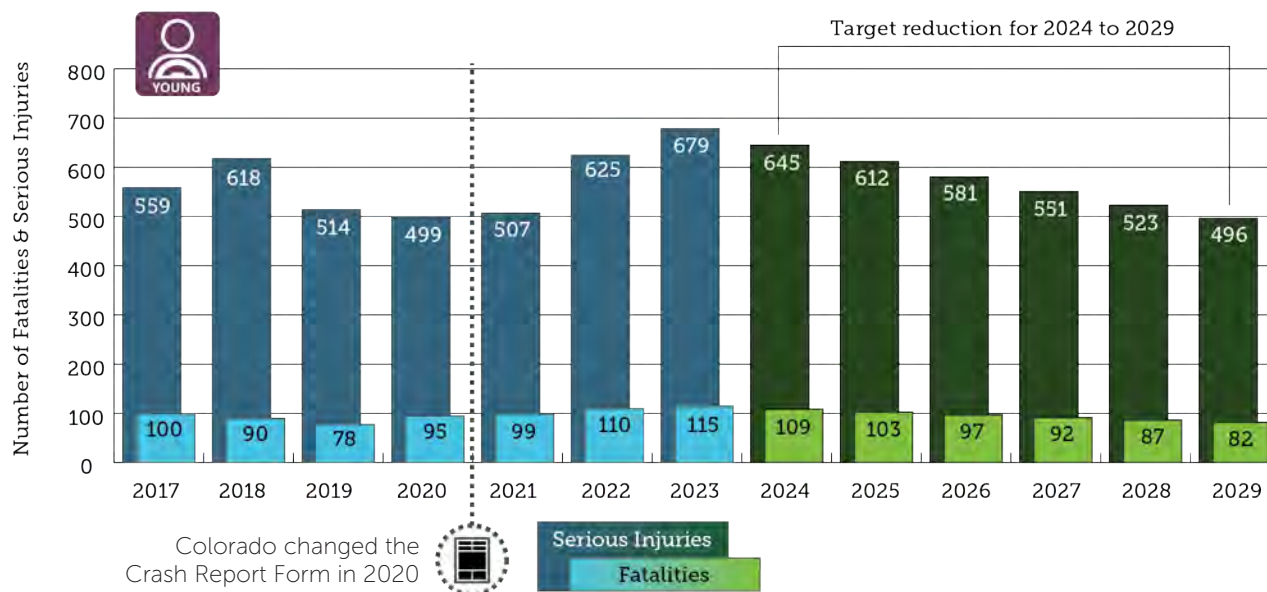


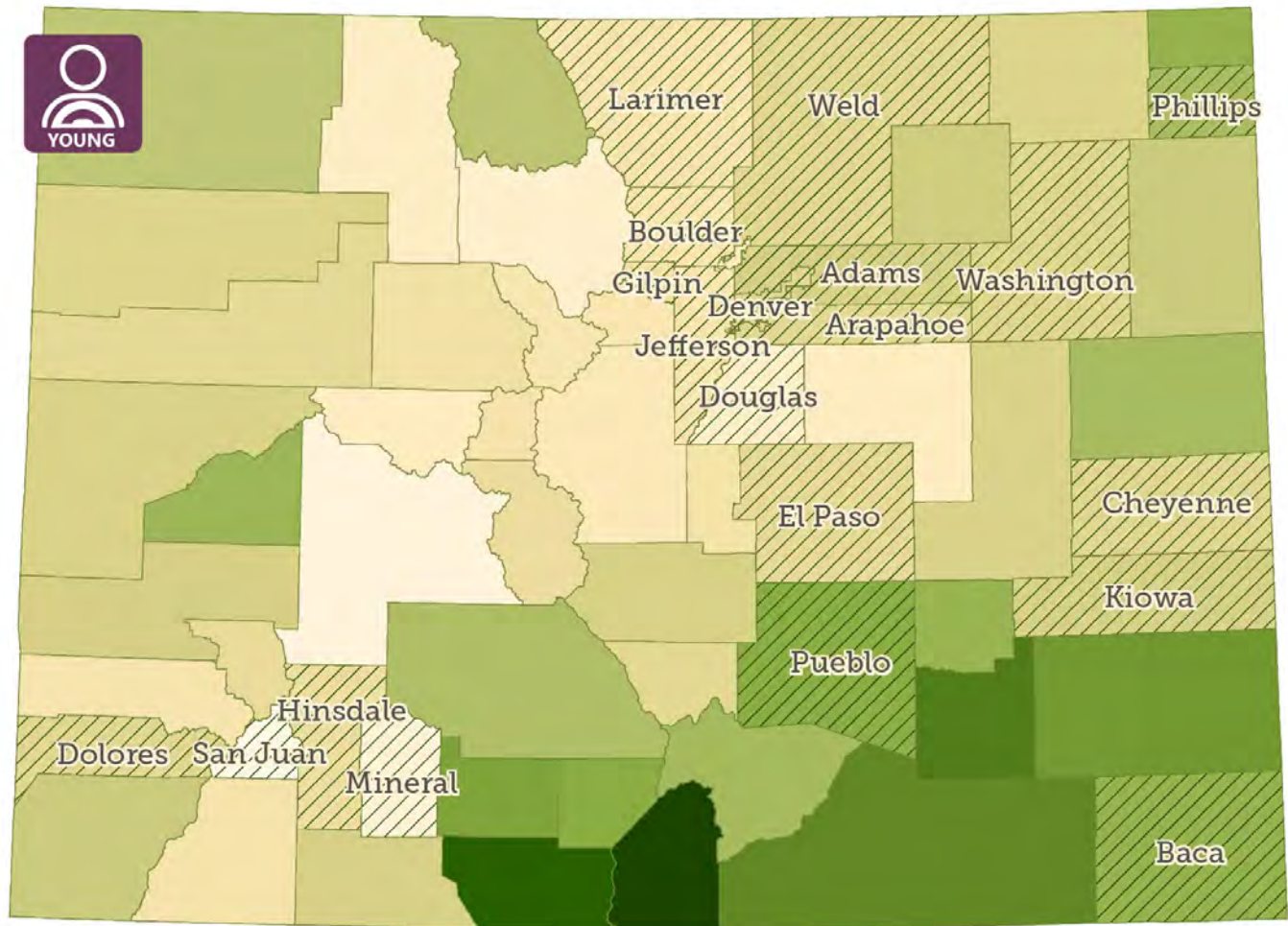
Figure 7-8: Young Driver-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

As shown in Figure 7-8, fatalities and serious injuries among young drivers have risen steadily since 2020, reaching 794 in 2023.

Young drivers, involved in 14% of severe crashes and 15% of all crashes statewide, face higher risks due to inexperience and limited awareness of driving hazards. Stakeholders have identified limited access to quality driver's education, especially in rural areas, as a key concern.

Overall, 40% of fatalities and serious injuries occur on rural roads. However, rural roads account for 47% of young driver-involved fatalities and serious injuries, indicating that young driver-involved fatalities are disproportionately high along rural roads. Young drivers aged 15-20 also tend to experience a higher proportion of overturning crashes compared to all drivers. Twenty-one percent (21%) of all young driver-involved fatalities and serious injuries result from overturning crashes compared to 11% for the overall population.

Figure 7-9: Top Counties of Young Driver-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | Mineral                 |
| 2    | El Paso              | Cheyenne                |
| 3    | Adams                | Kiowa                   |
| 4    | Arapahoe             | Hinsdale                |
| 5    | Weld                 | Baca                    |
| 6    | Jefferson            | San Juan                |
| 7    | Boulder              | Washington              |
| 8    | Larimer              | Gilpin                  |
| 9    | Douglas              | Phillips                |
| 10   | Pueblo               | Dolores                 |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 7-9 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest young driver-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of young driver-involved fatalities and serious injuries are along the Front Range, representing the most urban part of the state. When looking at fatalities and serious injuries per capita, rural Eastern Plains and Southwest Colorado counties are represented.

## Young Driver Strategies

### **SP9: Expand access to driver's education**

**Expand access to driver's education programs, particularly in rural areas, through partnerships with schools, online platforms, and community organizations.**

Limited access to driver's education, especially in Colorado's rural areas, makes it difficult for young drivers to receive proper training. This strategy aims to increase both availability and affordability of driver's education for all young drivers around the state. Expanding driver's education through partnerships with schools, online platforms, and community organizations increases opportunities for more young drivers in all locations around the state to gain the skills needed for safer driving.

### **SP10: Improve quality of driver's education**

**Improve the quality of driver's education programs, including incorporating defensive driving, distracted driving awareness, and active transportation considerations into the curriculum.**

Enhancing driver's education is of critical importance to reduce young driver crashes and improve overall roadway safety. By incorporating defensive driving and distracted driving awareness into the curriculum, this strategy addresses behaviors that disproportionately contribute to young driver-involved crashes. Additionally, increasing new drivers' awareness of active transportation safety may reduce crashes between young drivers and VRUs.



Table 7-1: VRU Fatalities and Serious Injuries Compared to Total Fatalities and Serious Injuries

|                                       | 2019  | 2020  | 2021  | 2022  | 2023  | Percent Change (2019-2023) |
|---------------------------------------|-------|-------|-------|-------|-------|----------------------------|
| VRU Fatalities and Serious Injuries   | 540   | 468   | 595   | 630   | 833   | +54%                       |
| Total Fatalities and Serious injuries | 3,797 | 3,518 | 4,359 | 4,440 | 4,874 | +28%                       |
| VRU % of Total                        | 14.2% | 13.3% | 13.6% | 14.2% | 17.1% | +2.9%                      |

Vulnerable Road Users (VRUs) as a percentage of all fatalities and serious injuries has hovered around 14% over much of the past five years. Unfortunately, 2023 saw a sharp increase in the number of VRU fatalities and serious injuries indicating that Colorado’s efforts to reduce VRU crashes has yet to result in a consistent trend reversal.

The stakeholder outreach efforts described in Chapter 3 SHSP Stakeholder Engagement provided many opportunities to consult with communities, subject matter experts and other entities on VRU-related topics. VRU safety was a recurring theme as the word cloud in Chapter 3 illustrates.

In 2023, 39 priority VRU “hot spot” locations were identified with recommended actions for each location. With the short time-frame since these locations were identified, the recommended actions were not able to be implemented. These priority locations were analyzed with updated crash data and a percent change of fatalities and serious injuries from the 2022 data collected in the VRU Assessment was identified. This can be found for pedestrians in Table 7-2 and for bicyclists in Table 7-3.

Some of the locations experienced an increase in fatalities and serious injuries while others experienced a decrease. Because the recommended actions have not yet been implemented, and the most recent safety trends indicate that VRU crashes continue to occur at these locations, it is recommended that the priority locations from the 2023 Vulnerable Road User Safety Assessment continue as part of the SHSP.



Table 7-2: Priority Locations Rolling Average of Fatalities and Serious Injuries for Pedestrians

| Project Name                                                                   | 2017-2021<br>5-Year Average | 2019-2023<br>5-Year Average | Change in<br>5-Year Average |
|--------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|
| E. Colfax Avenue (40C) - N. Yosemite Street to N. Peoria Street                | 10                          | 9                           | -1                          |
| Downtown Denver Activity Center                                                | 2.6                         | 2.6                         | 0                           |
| S. Nevada Avenue (115A) - E. Navajo Street to E. Mill Street                   | 3                           | 2.8                         | -0.2                        |
| E. Colfax Avenue (40C) - N. Clarkson Street to N. High Street                  | 2                           | 2                           | 0                           |
| Main Street (287C) - Longs Peak Avenue to 17th Avenue                          | 2.4                         | 4                           | 1.6                         |
| E. Evans Avenue - S. Jackson Street to S. Syracuse Way                         | 2.4                         | 2                           | -0.4                        |
| S. Federal Boulevard (88A) - W. Iowa Avenue to W. Mississippi Avenue           | 2.6                         | 2.4                         | -0.2                        |
| S. Townsend Avenue (550B) - Odelle Road to N. 7th Street                       | 1                           | 1.2                         | 0.2                         |
| Academy Boulevard - Hancock Expressway to E. Fountain Boulevard                | 1                           | 1.2                         | 0.2                         |
| N. Speer Boulevard - W. 11th Avenue to E. Colfax Avenue                        | 0.6                         | 1.6                         | 1                           |
| N. Federal Boulevard (88A) and W. Howard Place / W. 14th Avenue                | 1.6                         | 0.8                         | -0.8                        |
| Sheridan Boulevard (95A) - W. Dakota Avenue to W. 1st Avenue                   | 1.2                         | 1.6                         | 0.4                         |
| E. 6th Avenue (30A) - N. Potomac Street to N. Sable Boulevard                  | 1.2                         | 0.8                         | -0.4                        |
| Canyon Boulevard (7B) - 9th Street to 19th Street                              | 0.8                         | 0.2                         | -0.6                        |
| 72nd Avenue - Meade Street to N. Irving Street                                 | 1.2                         | 0.4                         | -0.8                        |
| S Parker road (83A) - E. Dartmouth Avenue to I-225                             | 1.2                         | 1.4                         | 0.2                         |
| Broadway Street (93A) - 15th Street to Canyon Boulevard                        | 0.6                         | 0.4                         | -0.2                        |
| Wadsworth Boulevard (121A) - W. 19th Avenue to W. 26th Avenue                  | 0.8                         | 1                           | 0.2                         |
| S. Federal Boulevard (88A) - W. Warren Avenue to 200' North of W. Evans Avenue | 1.2                         | 0.6                         | -0.6                        |
| S. Wadsworth Boulevard - W. Florida Avenue to W. Mississippi Avenue            | 1.2                         | 0.6                         | -0.6                        |
| E. Main Street (160A) - N. Beech Street to S. Veach Street                     | 1                           | 0.8                         | -0.2                        |
| Academy Boulevard and Austin Bluffs Parkway                                    | 1                           | 1                           | 0                           |
| Carefree Circle and N. Academy Boulevard                                       | 1                           | 0.8                         | -0.2                        |
| 28th Street (36B) - Spruce Street to Valmont Road                              | 0.8                         | 1                           | 0.2                         |
| Wadsworth Boulevard (121A) - W. 14th Avenue to E. Colfax Avenue                | 0.2                         | 0.4                         | 0.2                         |

|                                                                        |     |     |      |
|------------------------------------------------------------------------|-----|-----|------|
| Main Avenue (550B) - E. Park Avenue to E. 21st Avenue                  | 0.6 | 0.2 | -0.4 |
| 30th Street - Arapahoe Avenue to Walnut Street                         | 0.2 | 0   | -0.2 |
| Folsom Street - University Heights Avenue to Dorm Parking Lot Entrance | 0.2 | 0.2 | 0    |
| Colorado Boulevard (2A) and E. Colfax Avenue                           | 0.8 | 0.4 | -0.4 |
| Diagonal Highway (119B) - Foothills Parkway to Independence Road       | 0   | 0   | 0    |
| N. Lincoln Street - E. Colfax Avenue to E. 18th Avenue                 | 0   | 0   | 0    |
| Broadway Street - Violet Avenue to Yarmouth Avenue                     | 0   | 0   | 0    |
| 9th Avenue - Francis Street to Bross Street                            | 0   | 0   | 0    |
| E. Fountain Boulevard (24H) and S. Murray Boulevard                    | 0.6 | 0.4 | -0.2 |
| Havana Street and E. 16th Avenue                                       | 0   | 0   | 0    |
| Arapahoe Avenue (7C) - Foothills Parkway to 48th Street                | 0   | 0.2 | 0.2  |
| North Avenue (6B) and N. 1st Street                                    | 0   | 0   | 0    |
| W. Morrison Road (8A) and S. Estes Street / S. Garrison Street         | 0   | 0   | 0    |
| Sheridan Boulevard (95A) and W. 10th Avenue                            | 0   | 0.2 | 0.2  |

Table 7-3: Priority Locations Rolling Average of Fatalities and Serious Injuries for Bicyclists

| Project Name                                                         | 2017-2021<br>5-Year Average | 2019-2023<br>5-Year Average | Change in<br>5-Year Average |
|----------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|
| E. Colfax Avenue (40C) - N. Yosemite Street to N. Peoria Street      | 0.2                         | 0.6                         | 0.4                         |
| Downtown Denver Activity Center                                      | 0.4                         | 0.4                         | 0                           |
| S. Nevada Avenue (115A) - E. Navajo Street to E. Mill Street         | 0.4                         | 0.4                         | 0                           |
| E. Colfax Avenue (40C) - N. Clarkson Street to N. High Street        | 1.4                         | 0.8                         | -0.6                        |
| Main Street (287C) - Longs Peak Avenue to 17th Avenue                | 0.8                         | 1                           | 0.2                         |
| E. Evans Avenue - S. Jackson Street to S. Syracuse Way               | 0.6                         | 0.6                         | 0                           |
| S. Federal Boulevard (88A) - W. Iowa Avenue to W. Mississippi Avenue | 0.2                         | 0.2                         | 0                           |
| S. Townsend Avenue (550B) - Odelle Road to N. 7th Street             | 0.8                         | 0.6                         | -0.2                        |
| Academy Boulevard - Hancock Expressway to E. Fountain Boulevard      | 0.4                         | 0.6                         | 0.2                         |
| N. Speer Boulevard - W. 11th Avenue to E. Colfax Avenue              | 1                           | 1                           | 0                           |
| N. Federal Boulevard (88A) and W. Howard Place / W. 14th Avenue      | 0                           | 0.4                         | 0.4                         |
| Sheridan Boulevard (95A) - W. Dakota Avenue to W. 1st Avenue         | 0.2                         | 0                           | -0.2                        |

|                                                                                |     |     |      |
|--------------------------------------------------------------------------------|-----|-----|------|
| E. 6th Avenue (30A) - N. Potomac Street to N. Sable Boulevard                  | 0.2 | 0.2 | 0    |
| Canyon Boulevard (7B) - 9th Street to 19th Street                              | 0.6 | 0.8 | 0.2  |
| 72nd Avenue - Meade Street to N. Irving Street                                 | 0.2 | 0.2 | 0    |
| S Parker road (83A) - E. Dartmouth Avenue to I-225                             | 0   | 0   | 0    |
| Broadway Street (93A) - 15th Street to Canyon Boulevard                        | 0.6 | 0.4 | -0.2 |
| Wadsworth Boulevard (121A) - W. 19th Avenue to W. 26th Avenue                  | 0.4 | 0   | -0.4 |
| S. Federal Boulevard (88A) - W. Warren Avenue to 200' North of W. Evans Avenue | 0   | 0.2 | 0.2  |
| S. Wadsworth Boulevard - W. Florida Avenue to W. Mississippi Avenue            | 0   | 0.2 | 0.2  |
| E. Main Street (160A) - N. Beech Street to S. Veach Street                     | 0   | 0   | 0    |
| Academy Boulevard and Austin Bluffs Parkway                                    | 0   | 0   | 0    |
| Carefree Circle and N. Academy Boulevard                                       | 0   | 0   | 0    |
| 28th Street (36B) - Spruce Street to Valmont Road                              | 0   | 0.4 | 0.4  |
| Wadsworth Boulevard (121A) - W. 14th Avenue to E. Colfax Avenue                | 0.6 | 0.4 | -0.2 |
| Main Avenue (550B) - E. Park Avenue to E. 21st Avenue                          | 0.2 | 0.2 | 0    |
| 30th Street - Arapahoe Avenue to Walnut Street                                 | 0.6 | 0.6 | 0    |
| Folsom Street - University Heights Avenue to Dorm Parking Lot Entrance         | 0.6 | 0.8 | 0.2  |
| Colorado Boulevard (2A) and E. Colfax Avenue                                   | 0   | 0   | 0    |
| Diagonal Highway (119B) - Foothills Parkway to Independence Road               | 0.6 | 0.4 | -0.2 |
| N. Lincoln Street - E. Colfax Avenue to E. 18th Avenue                         | 0.6 | 0.2 | -0.4 |
| Broadway Street - Violet Avenue to Yarmouth Avenue                             | 0.6 | 0.2 | -0.4 |
| 9th Avenue - Francis Street to Bross Street                                    | 0.6 | 0.6 | 0    |
| E. Fountain Boulevard (24H) and S. Murray Boulevard                            | 0   | 0   | 0    |
| Havana Street and E. 16th Avenue                                               | 0.6 | 0.2 | -0.4 |
| Arapahoe Avenue (7C) - Foothills Parkway to 48th Street                        | 0.4 | 0   | -0.4 |
| North Avenue (6B) and N. 1st Street                                            | 0.4 | 0   | -0.4 |
| W. Morrison Road (8A) and S. Estes Street / S. Garrison Street                 | 0.4 | 0.2 | -0.2 |
| Sheridan Boulevard (95A) and W. 10th Avenue                                    | 0.4 | 0.2 | -0.2 |

The program of strategies to reduce the safety risks for VRUs is summarized within the following Pedestrians and Bicyclists Focus Area summaries. Specific VRU projects and actions are a part of the Action Planning Process described in Chapter 10 Implementation.

# Pedestrians



**Focus Area Definition:** Crashes that involve pedestrians being struck by vehicles.  
**Focus Area Goal:** Reduce the number of pedestrian fatalities and serious injuries by five percent from the previous year through 2029.

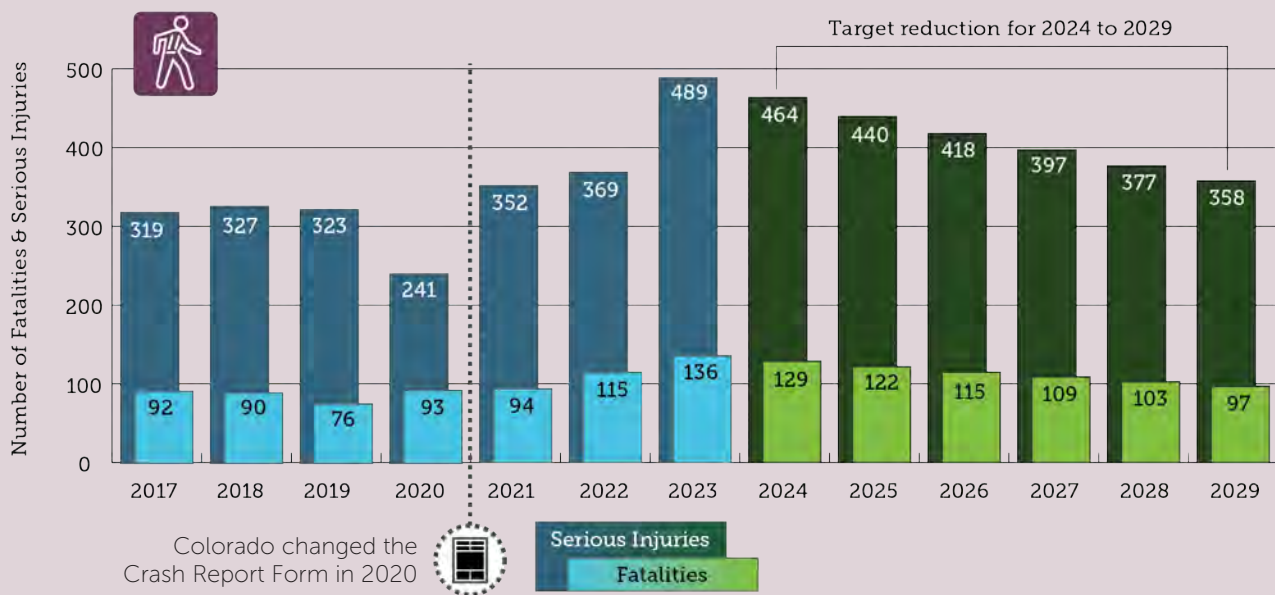
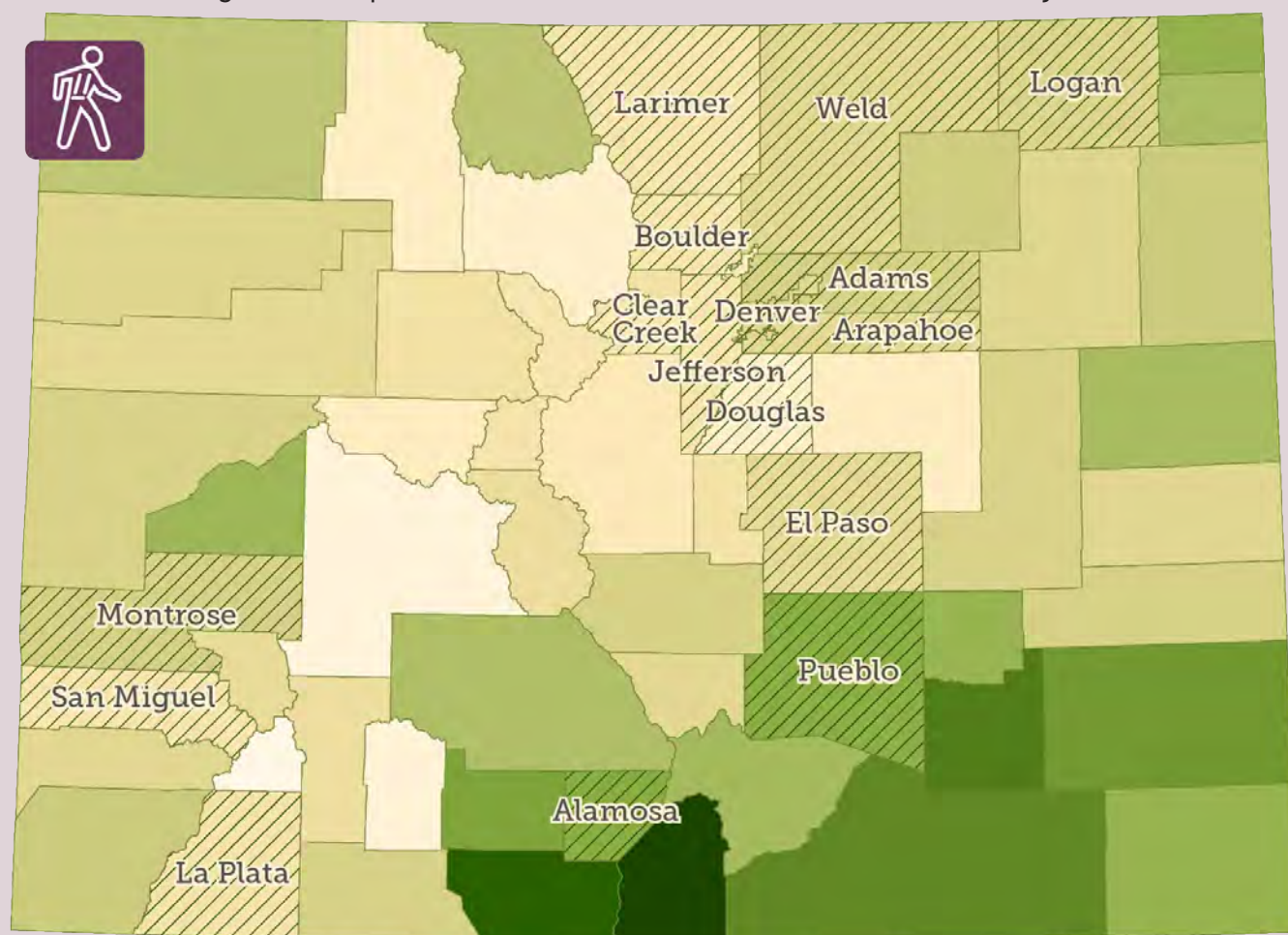


Figure 7-10: Pedestrian-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Pedestrian fatalities and serious injuries have steadily increased, reaching 625 fatalities and serious injuries in 2023 (Figure 7-10). Although pedestrians are involved in just 1% of crashes, they account for 11% (Figure 7-1) of fatal and serious injury crashes, underscoring the severity of these incidents. Reducing pedestrian crashes will directly lower overall fatalities and serious injuries statewide.



Figure 7-11: Top Counties of Pedestrian-Involved Fatalities and Serious Injuries



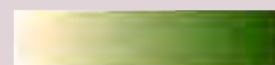
| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver*              | Clear Creek             |
| 2    | Arapahoe*            | Denver*                 |
| 3    | Adams*               | Pueblo*                 |
| 4    | El Paso              | Alamosa                 |
| 5    | Jefferson            | Adams*                  |
| 6    | Boulder              | San Miguel              |
| 7    | Pueblo*              | Logan                   |
| 8    | Larimer              | Montrose                |
| 9    | Weld                 | Arapahoe*               |
| 10   | Douglas              | La Plata                |

\* represented in both top and per capita categories

#### Map Legend

Weighted TDI Score

Low



High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 7-11 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest pedestrian fatalities and serious injuries and the highest rates per capita. Counties with the highest number of pedestrian fatalities and serious injuries are the counties with more urban areas, mostly the counties surrounding Denver. Two counties of note are Pueblo and Alamosa as these are counties with higher TDI scores and higher levels of pedestrian fatalities and serious injuries.

About 50% of severe pedestrian crashes occur at intersections, and nearly 90% occur in urban areas, highlighting, in particular, that urban intersections are among the most high-risk locations. Working-aged adults (aged 21-64) account for the highest rate of fatalities and serious injuries per capita. There is insufficient pedestrian exposure data to truly identify the ages of pedestrians at the highest risk. As a result, one strategy is to build more complete data around pedestrian exposure.

Designers, pedestrians, and drivers all influence roadway safety, and a shared responsibility is essential to reducing crashes. According to crash reports, over 60% of fatal pedestrian crashes and 47% of serious injury pedestrian crashes involved instances where pedestrian facilities (e.g., crosswalks) were not used as designed. This shows the need for education for both drivers and pedestrians on the use of pedestrian facilities, as well as the need for improved pedestrian facilities that are easy and safe to use.

Pedestrian safety is influenced by many factors, including infrastructure design, vehicle speed, and access to safe crossings—elements that are especially important in urban areas and locations where a larger percentage of residents utilize active transportation modes. Targeted holistic improvements can support pedestrian safety including infrastructure improvements, education campaigns for both drivers and pedestrians, and policies that promote access to transportation options other than driving.

Because pedestrians are more vulnerable in crashes and face a higher likelihood of severe injury or death, minimizing pedestrian-vehicle conflicts—especially at intersections—is critical. Investing in safer crossings, traffic-calming measures, and community-driven safety programs can help reduce risks. Ensuring that safety improvements reflect the needs of target communities will help support effective safety solutions.

In 2009, Colorado adopted a new bicycle and pedestrian policy, Policy Directive 1602. This Policy Directive states “The needs of bicyclists and pedestrians shall be included in the planning, design, and operation of transportation facilities, as a matter of routine. A decision to not accommodate them shall be documented based on the exemption criteria in the procedural directive.” Moving forward, it is key that Colorado continues to address bicycles and pedestrians in all transportation facilities as a priority and not a second thought.

## Pedestrian Strategies

Strategies to improve pedestrian safety are combined with strategies to improve bicyclist safety. Refer to the following Bicyclists Focus Area for more details on pedestrian and bicyclist strategies.

## Bicyclists



**Focus Area Definition:** Crashes that involve bicyclists being struck by vehicles.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries that involve bicyclists by five percent from the previous year through 2029.

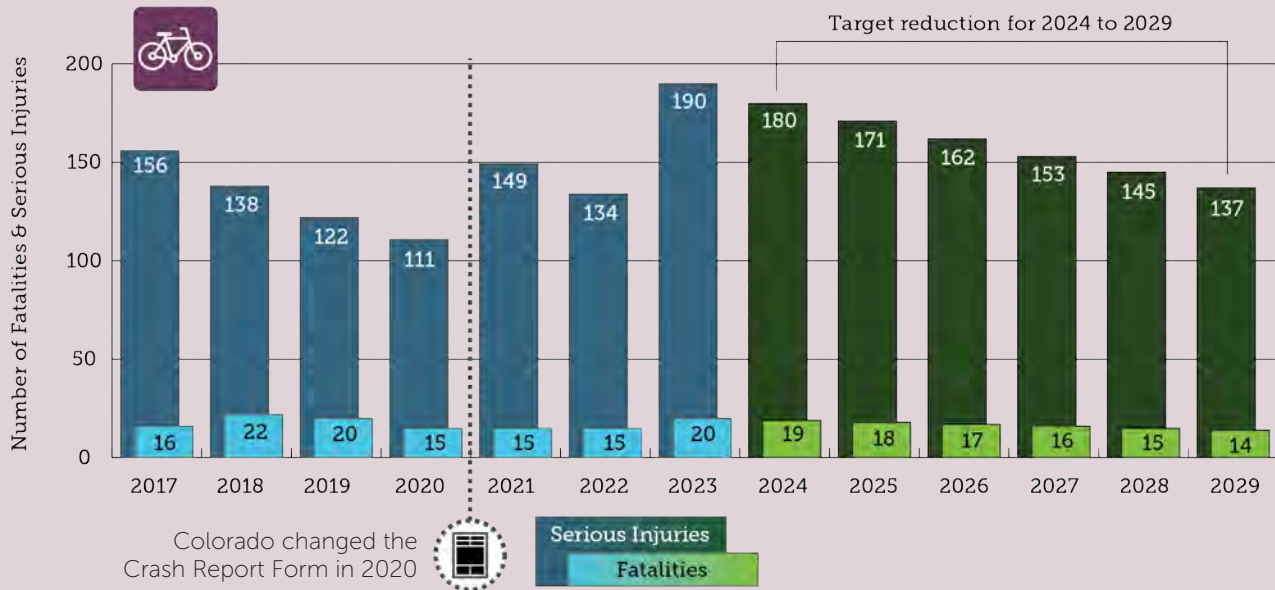


Figure 7-12: Bicyclist-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Figure 7-12 shows a sharp rise in bicyclist fatalities and serious injuries in 2023, totaling 210.

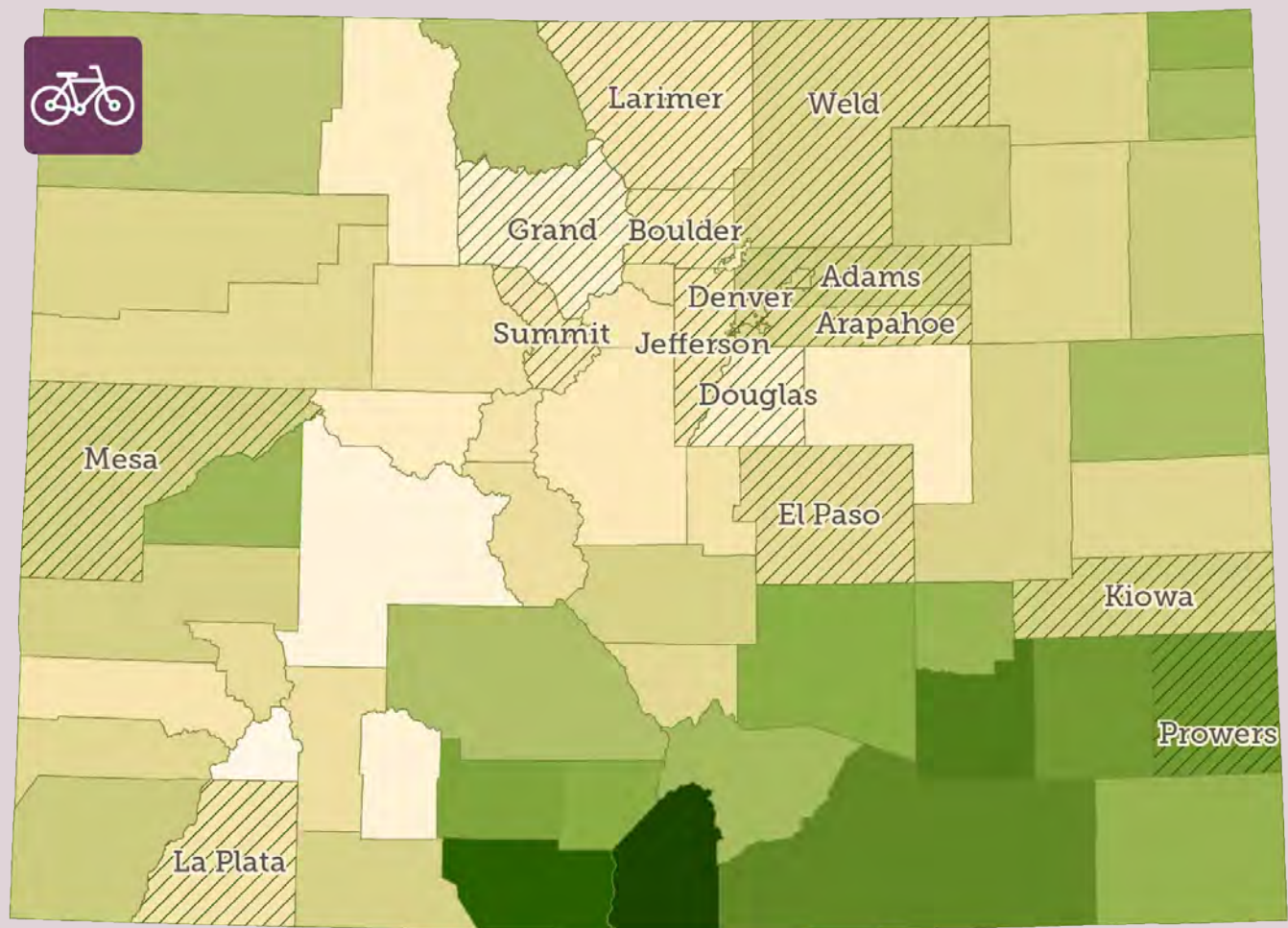
Figure 7-13 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest bicyclist fatalities and serious injuries and the highest rates per capita. Similar to the pedestrian crashes, the highest number of bicyclist fatalities and serious injuries are the counties with more urban areas, mostly the counties surrounding Denver. Prowers County is the only identified county with a high TDI score and high levels of bicyclist fatalities and serious injuries.

Intersections pose the highest risk for bicyclists, accounting for 59% of serious injury crashes and 67% of fatal crashes involving bicyclists. Nearly 90% of fatal and serious injury bicyclist crashes occur in urban areas, making them a priority for safety improvements.

Similar to pedestrians, bicyclists are more vulnerable in crashes and face a higher likelihood of severe injury or death; minimizing bicycle-vehicle conflicts—especially at intersections—is critical. Investing in improved bicyclist infrastructure, traffic-calming measures, separated bike lanes, and community-driven safety programs can help reduce risks. Additionally, ensuring that outreach efforts engage and reflect the needs of all communities, especially those that experience high rates of fatalities and serious injuries, will support more effective safety solutions.



Figure 7-13: Top Counties of Bicyclist-Involved Fatalities and Serious Injuries



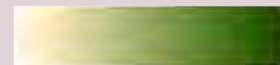
| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver*              | Kiowa                   |
| 2    | Boulder*             | Boulder*                |
| 3    | Jefferson*           | Denver*                 |
| 4    | Larimer*             | Larimer*                |
| 5    | El Paso              | Summit                  |
| 6    | Arapahoe             | Grand                   |
| 7    | Adams                | Prowers                 |
| 8    | Mesa*                | Mesa*                   |
| 9    | Douglas              | La Plata                |
| 10   | Weld                 | Jefferson*              |

\* represented in both top and per capita categories

#### Map Legend

Weighted TDI Score

Low



High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



## Pedestrian and Bicyclist Strategies

Bicyclist safety strategies focus on infrastructure upgrades and education, aligning with pedestrian safety efforts due to shared challenges.

### **SP11: Analyze pedestrian and bicycle crash types**

**Apply the Pedestrian and Bicyclist Crash Analysis Tool (PBCAT) to enhance understanding of VRU crashes.**

This strategy applies the Pedestrian and Bicyclist Crash Analysis Tool (PBCAT) to better understand contributing factors and movements for VRU crashes and more accurately match a countermeasure to the safety issue. In addition, this strategy examines existing crash reporting data elements to identify opportunities to enhance the collection of data to better align with PBCAT entry fields.

### **SP12: Improve VRU exposure data**

**Improve exposure data to better understand areas at higher risk of VRU crashes.**

This strategy aims to improve the data around VRU exposure in order to identify high-risk locations for VRUs by collecting VRU counts in advance of Road Safety Audits (RSA) and Corridor Studies to assess the level of risk for these roadways. This strategy also aims to implement a large-scale active transportation count program or purchase “big data” VRU exposure and origin-destination data.

### **SP13: Conduct Road Safety Audits (RSAs)**

**Conduct VRU-specific and/or expanded Road Safety Audits.**

Establish an RSA process for the State of Colorado. For VRU specific RSAs, VRU exposure data will be collected prior to performing RSAs. RSAs should also include PBCAT or similar analysis of VRU crashes and an analysis of human and behavioral factors in safety improvement recommendations.

### **SP14: Perform regional pedestrian/bicyclist studies**

**Perform studies at the local and regional levels that focus on pedestrian and bicyclist safety.**

Perform studies at the regional level, such as those created by CDOT’s Regions 1 and 4, or by regional organizations such as Transportation Planning Regions or Metropolitan Planning Organizations, and support local agencies in conducting pedestrian and bicyclist safety studies. This strategy creates a deeper understanding of the state of pedestrian and bicyclist safety through a regional lens, contributing to statewide active transportation programming.

### **SP15: Analyze VRU crash demographic data**

**Continue to utilize demographic data to identify community-level risk factors that may be contributing to VRU crashes.**

Perform demographic analysis of VRU crashes, and identify communities which are disproportionately impacted by these types of crashes. Relevant data regarding community-level data sources can help identify additional risk factors that may be contributing to high rates of VRU crashes in the specified communities. When considering VRU safety infrastructure improvement projects, these additional factors may be crucial for reducing crashes and relevant perspectives should be considered throughout all stages of project development.

### **SP16: Conduct VRU before-and-after studies**

**Continue to evaluate implemented safety projects and identify the most successful project types.**

This strategy aims to continue to evaluate VRU safety projects using before-and-after studies and offer support to local agencies to perform their own before-and-after studies. The overall goal of this strategy is to compile a statewide database to build a Colorado-specific list of countermeasures proven to work.

### **SP17: Educate traffic safety professionals on VRU best practices**

**Work to continually educate traffic safety professionals on new VRU concepts and design strategies.**

Bring VRU safety educational opportunities to Colorado such as CDOT and the Federal Highway Administration (FHWA) trainings on bicycle and pedestrian design, Complete Streets, and the Safe System Approach (SSA). Ensure jurisdictional personnel are provided with adequate time and support to attend and invite consultants to participate.

### **SP18: Inventory VRU infrastructure**

**Update and maintain the existing inventory of active transportation facilities on the state highway system and owned or maintained by local jurisdictions.**

This strategy aims to build an inventory of active transportation facilities on the state highway system. This includes surveying local jurisdictions to determine which ones maintain active transportation facility inventories and assisting jurisdictions who are not already maintaining an inventory of active transportation facilities in creating one.

### **SP19: Expand VRU data sources**

**Expand data sources in the VRU safety assessment to include all crash types to enable a proactive approach to VRU safety.**

In the 2023 Colorado VRU Safety Assessment, only VRU fatal and serious injury crashes were analyzed, which led to a much smaller dataset for identifying top contributing factors and priority locations and limiting other data analyses. This strategy aims to focus future VRU data analysis efforts on all VRU crash types enabling a more complete understanding of VRU safety around the state.

### **SP20: Evaluate VRU priority locations**

**Work to continually identify and address priority locations for VRU safety.**

This strategy focuses on continuing to identify priority locations for VRU safety and address the safety needs. This includes monitoring and analyzing the safety impacts of completed projects with VRU infrastructure improvements. This also includes utilizing FHWA's Proven Safety Countermeasures to address location-specific needs based on the PBCAT analysis, exposure data, land use, trip generators, and near-miss data.

## Work Zones



**Focus Area Definition:** Crashes occurring in work zones.

**Focus Area Goal:** Reduce the number of severe crashes occurring in work zones by five percent from the previous year through 2029.

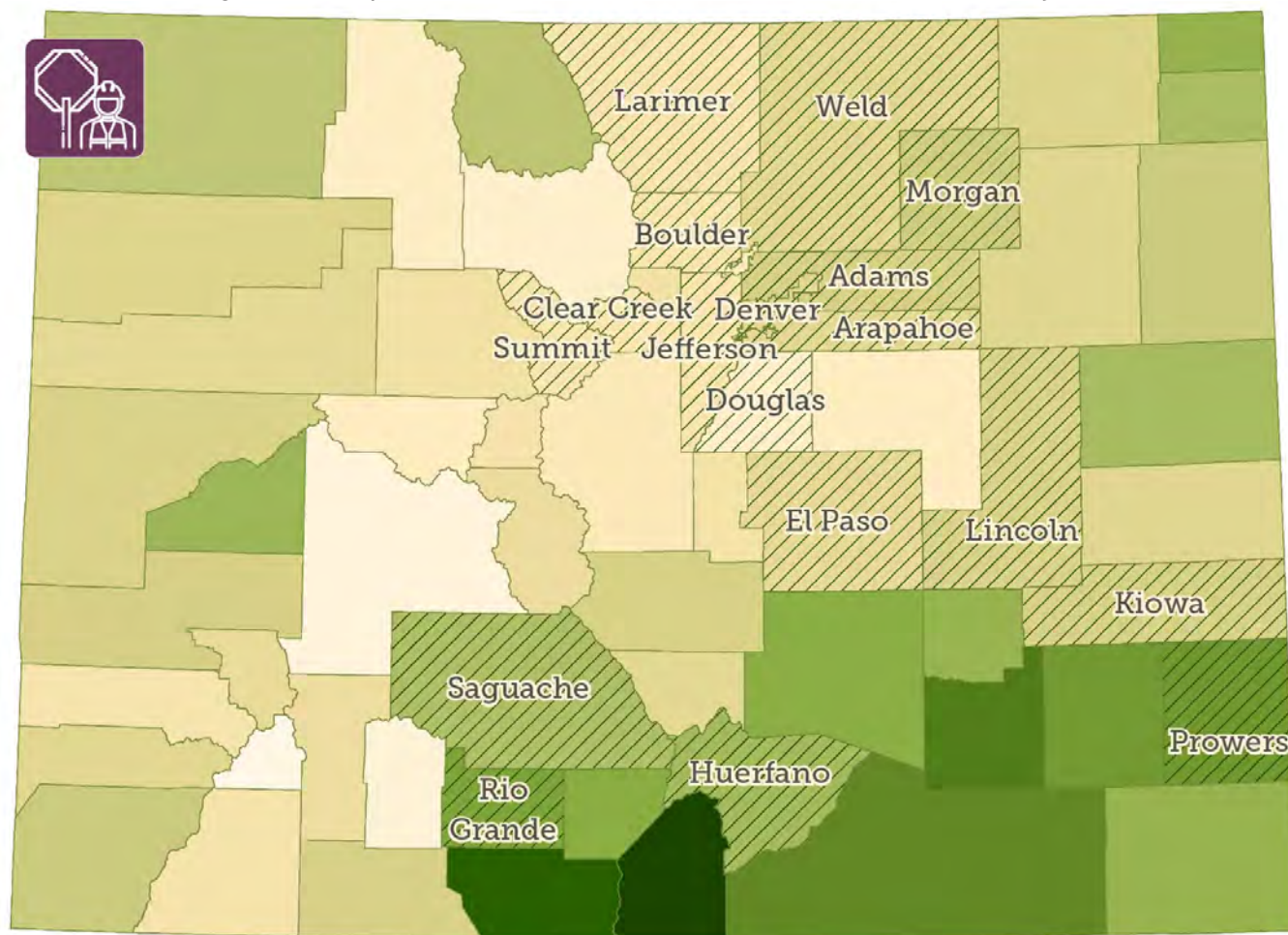


Figure 7-14: Work zone-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Work Zones are a area with limited available data, as Colorado's crash report form only began tracking work zone related crashes in 2021. Since that time, fatalities and serious injuries in work zones have steadily increased, reaching 79 in 2023, up from 65 in 2022 (Figure 7-14).

Figure 7-15 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest work zone-involved fatalities and serious injuries and the highest rates per capita. The highest number of work zone-involved fatalities and serious injuries tend to be urban counties.

Figure 7-15: Top Counties of Work Zone-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Larimer*             | Kiowa                   |
| 2    | El Paso              | Clear Creek             |
| 3    | Douglas              | Lincoln                 |
| 4    | Adams                | Saguache                |
| 5    | Denver               | Huerfano                |
| 6    | Weld                 | Morgan                  |
| 7    | Jefferson            | Summit*                 |
| 8    | Arapahoe             | Prowers                 |
| 9    | Boulder              | Rio Grande              |
| 10   | Summit*              | Larimer*                |

\* represented in both top and per capita categories

#### MAP LEGEND

##### Weighted TDI Score

Low High

Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.



Although work zone crashes account for fewer fatalities and serious injuries than other Focus Areas, their rapid increase is concerning. The primary causes remain unclear, but speed discrepancies and irregular traffic patterns are major contributors. A deeper understanding of these factors is crucial to addressing, mitigating, and reducing work zone crashes.

## Work Zone Strategies

### **SP21: Create work zone safety committee**

**Form a work zone safety committee to analyze available data, share lessons learned, and improve best practices.**

As work zone crashes become a growing traffic safety issue in Colorado and with the addition of this data point on the DR3447 Crash Form, this strategy aims to identify key contributing factors and develop effective solutions.



## First Responders



**Focus Area Definition:** Crashes involving first responders.

**Focus Area Goal:** Reduce the number of severe crashes that involve first responders by five percent from the previous year through 2029.

First responders are individuals that respond in a professional capacity to a public safety emergency. Examples include but are not limited to law enforcement, firefighters, and emergency medical technicians. Due to the dangerous environment where these individuals often work, such as high-speed roadways, this Focus Area promotes keeping first responders safe as they support others on the road. In 2023, Colorado expanded HB23-1123 Slow Down Move Over law to better protect individuals and vehicles on the roadside. This law requires all motor vehicle drivers to move to one lane apart from a stationary motor vehicle when the stationary motor vehicle has its hazard lights activated. If a driver cannot move to be one lane apart from the stationary motor vehicle, the driver must slow down and drive at a safe speed.<sup>9</sup>

The Colorado Standing Committee on First Responder Safety leads statewide efforts to enhance first responder protection through joint Traffic Incident Management training, improved quick clearance techniques, and public education on safe driving near roadside incidents. The strategies in this Focus Area continue supporting the committee's initiatives and collaboration with first responders to create safer roadways to ensure the safest possible roadway environment for all emergency personnel. For information regarding Traffic Incident Management, see Chapter 9 Post-Crash Care.

### First Responder Strategies

#### **SP22: Provide resources and support for first responders**

**Continue providing resources and technical support to strengthen the Colorado Standing Committee on First Responder's efforts in improving first responder safety.**

The Colorado Standing Committee on First Responder Safety is responsible for the development and execution of the Traffic Incident Management Strategic Plan For Colorado, which was most recently updated in 2022. To avoid duplication of efforts, the SHSP supports the activities of the Colorado Standing Committee on First Responder Safety and the priorities outlined in the Traffic Incident Management Strategic Plan For Colorado.

<sup>9</sup> Move Over or Slow Down Stationary Vehicle, HB23-1123 (2023). <https://leg.colorado.gov/bills/hb23-1123>





## Chapter 8: Safe Roads

## Introduction

The Safe Roads Emphasis Area acknowledges that safety is proactive and that humans make mistakes. It focuses on designing and improving infrastructure to anticipate and reduce the impact of human errors, preventing fatalities and serious injuries.

The primary objective of the Safe Roads Emphasis Area is to identify and implement targeted roadway infrastructure improvements to reduce the occurrence of fatal and serious injury crashes on Colorado's roadways. Fundamental to this objective is the understanding that responsibility is shared, and local agency contributions are essential.



## Focus Areas

The Safe Roads Emphasis Area identifies four Focus Areas:

Emphasis Area:



Safe Roads

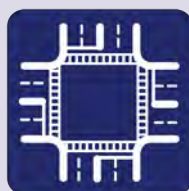
Focus Areas:



Lane Departures



Off-System



Intersections



Speed Management



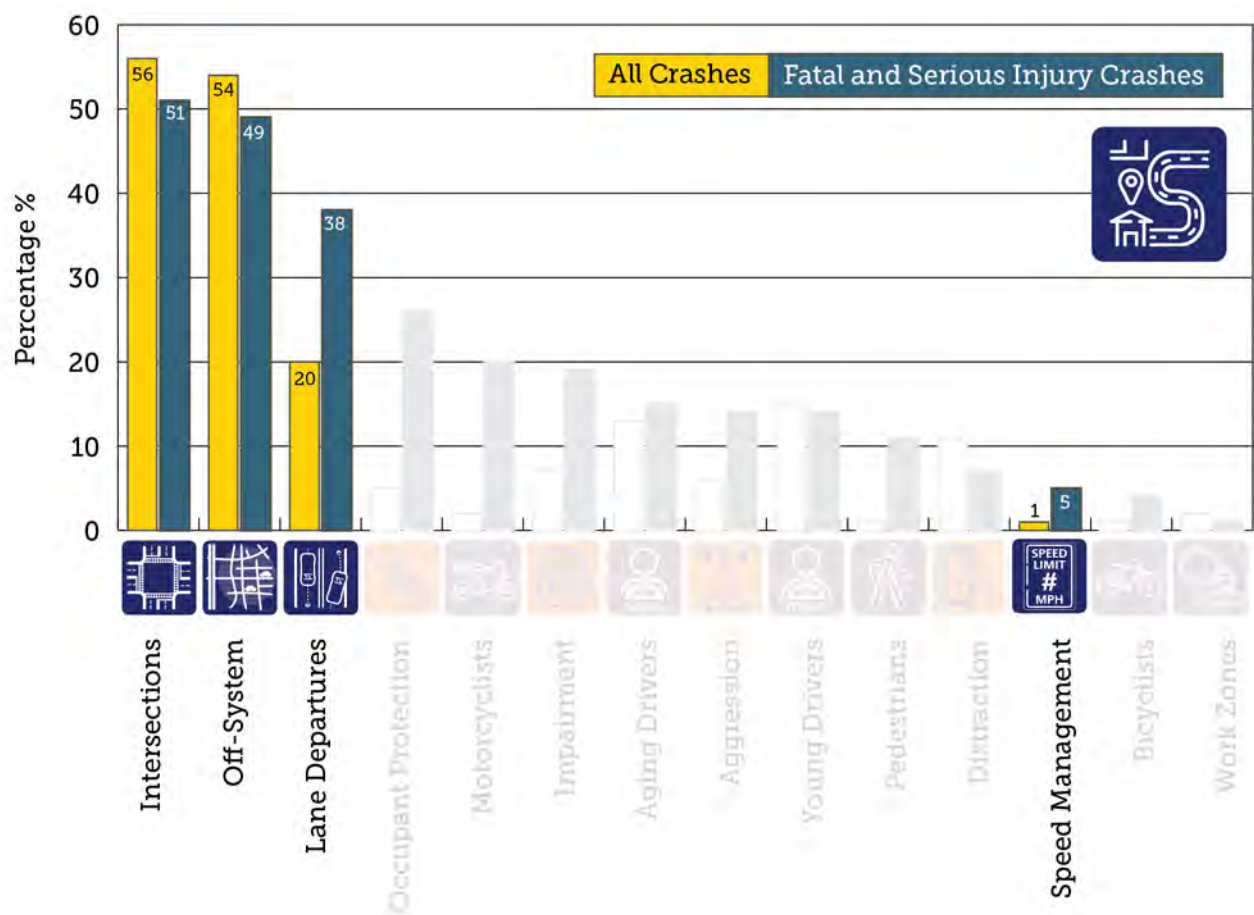


Figure 8-1: Percentage of Total & Fatal/Serious Injury Crashes Involving Focus Areas

The Safe Roads Emphasis Area focuses on different roadway environments where severe crashes occur. The Focus Areas within this Emphasis Area have high potential for reducing or eliminating future severe crashes and include intersections, lane departures, off-system roads, and speed management.

Additionally, the strategies identified in the Safe Roads Emphasis Area could all apply to High Risk Rural Roads (HRRR) depending on the safety needs of the given location.

# Lane Departures



**Focus Area Definition:** Crashes that occur due to a driver leaving their lane including run-off-road, fixed object, head-on, rollover, and sideswipe crash types.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries caused by lane departure crashes by five percent from the previous year through 2029.

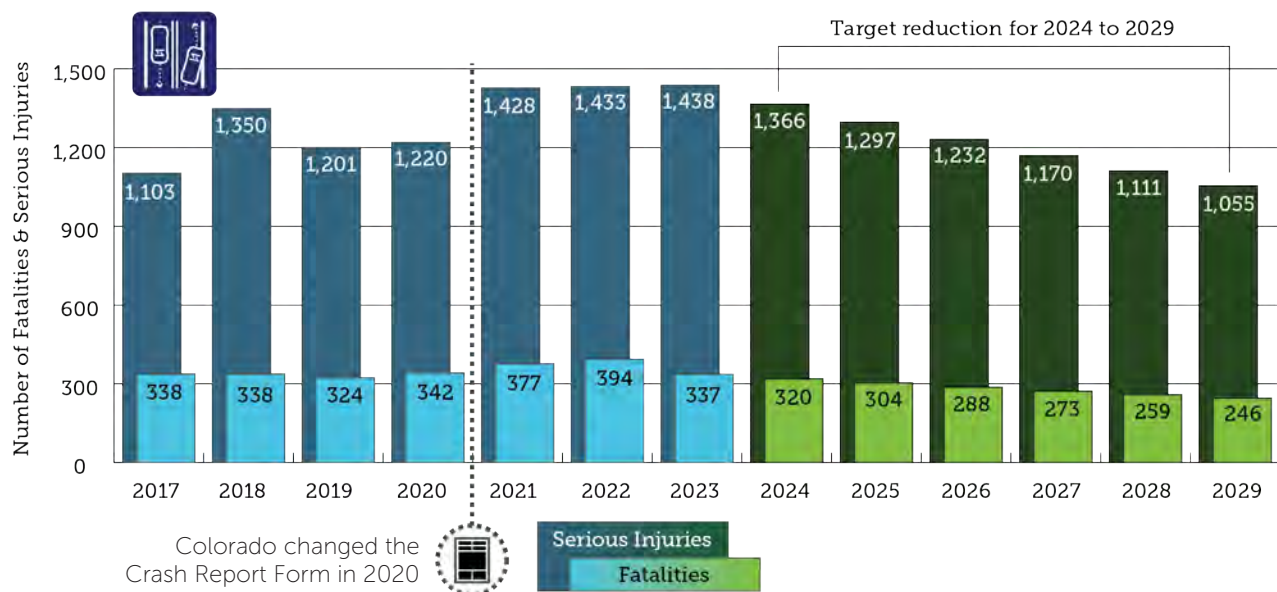
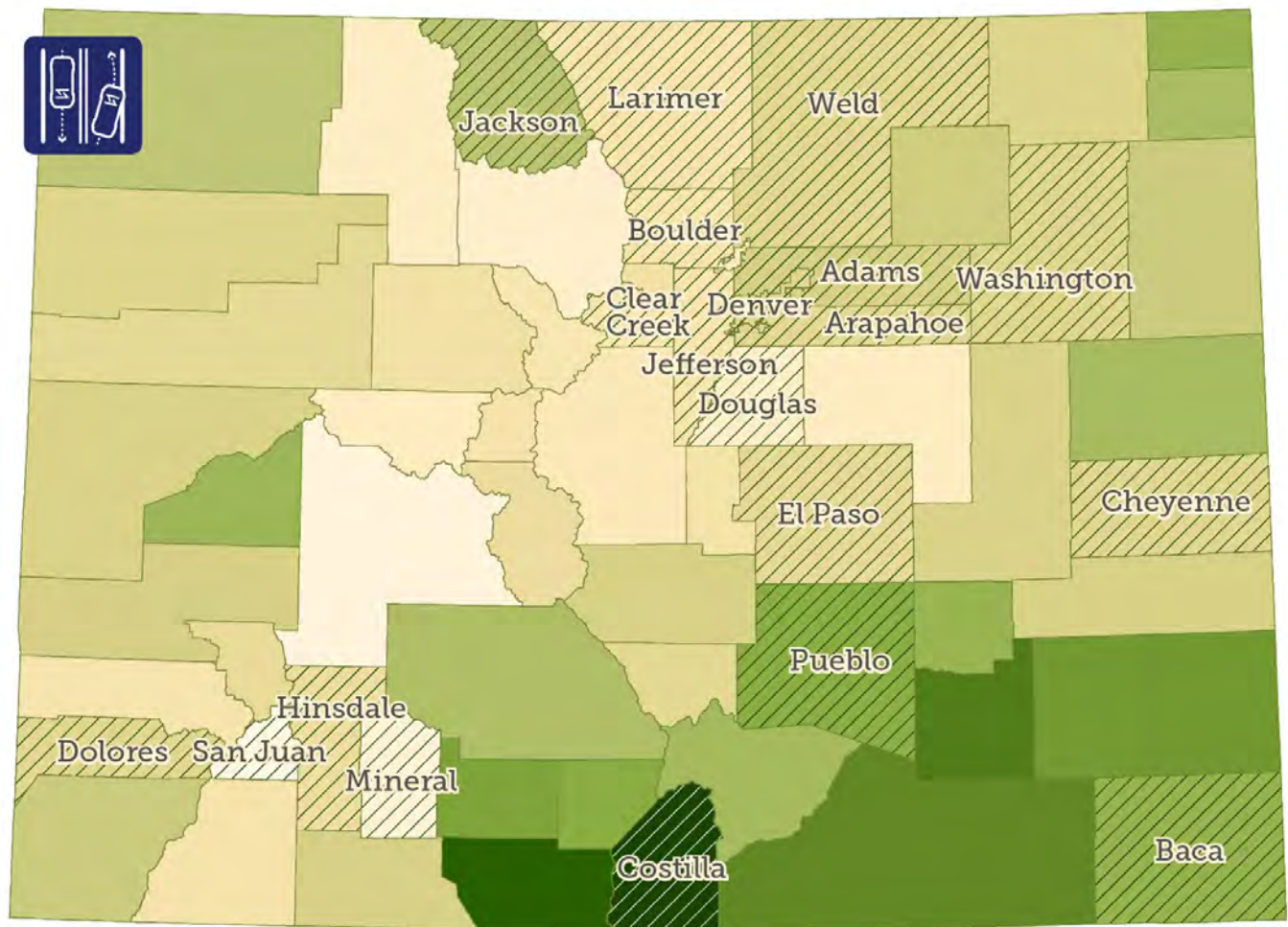


Figure 8-2: Lane Departure-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Figure 8-2 illustrates a relatively stable trend in lane departure fatalities and serious injuries. In 2023, there were 1,775 lane departure fatalities and serious injuries. Lane departure crashes occur more often in rural areas than in urban areas due to higher speeds and reduced lighting infrastructure, making lane markings more difficult to discern. Rural areas account for 62% of lane departure fatal and serious injury crashes, while only accounting for 38% of all crash types in the state. This disparity shows the need for addressing lane departures in rural areas.

Figure 8-3 shows a map identifying the counties with the highest transportation disadvantage, as well as the counties with the highest lane departure-involved fatalities and serious injuries and the highest rates per capita. Counties with the highest number of lane departure-involved fatalities and serious injuries are the counties along the Front Range. Top counties per capita tend to be rural counties along the Eastern Plains and Southwestern Colorado.

Figure 8-3: Top Counties of Lane Departure-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | El Paso              | Mineral                 |
| 2    | Denver               | San Juan                |
| 3    | Adams                | Jackson                 |
| 4    | Jefferson            | Cheyenne                |
| 5    | Weld                 | Baca                    |
| 6    | Larimer              | Hinsdale                |
| 7    | Arapahoe             | Costilla                |
| 8    | Douglas              | Washington              |
| 9    | Boulder              | Clear Creek             |
| 10   | Pueblo               | Dolores                 |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

The three most common lane departure crash types are fixed objects, overturning, and roadside barriers, as depicted in Figure 8-4. While same direction lane departure crashes are problematic, data indicates that the most severe lane departure crashes involve vehicles veering off the roadway or into oncoming traffic.

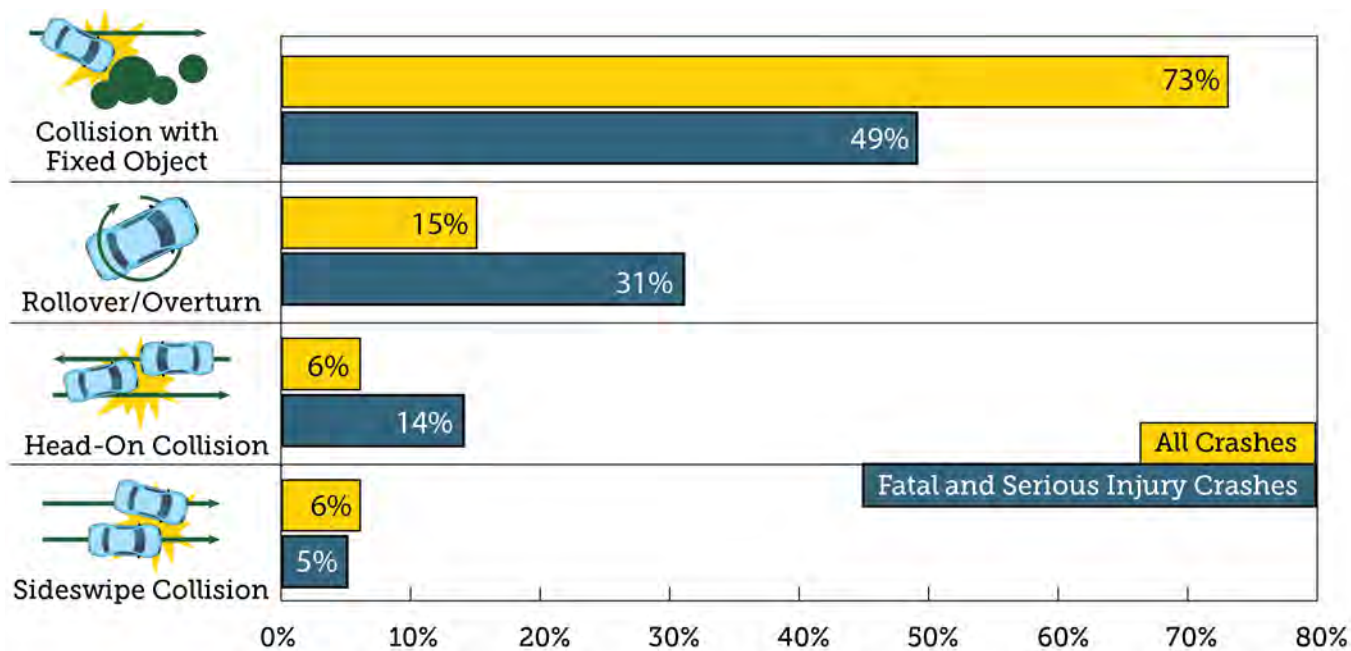


Figure 8-4: Lane Departure Severe Crashes by Crash Type (2019-2023)

## Lane Departure Strategies

### SR1: Install traffic controls and safety barriers

**Reduce fatal and serious injury crashes caused by lane departures by installing improved traffic control devices and safety barriers on high-risk road segments.**

The primary crash types associated with lane departures include fixed object collisions, overturning, and head-on crashes. Installing roadside barriers to keep errant vehicles on the road and enhancing traffic control to improve awareness of changing road conditions can reduce the frequency and severity of lane departure crashes.

### SR2: Improve roadway geometry

**Implement roadway geometric improvements to encourage or accommodate appropriate driving speeds, while providing a forgiving roadside condition that minimizes severe crashes along high-risk road segments.**

This strategy focuses on roadway design that accommodates the inevitability of human error, specifically when lane departures occur. In addition to forgiving roadside designs, aligning roadway design with realistic driving speeds can further mitigate the occurrence of severe lane departure crashes.



## Off-System



**Focus Area Definition:** Crashes that occur on public roadways that are not maintained by the State of Colorado.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries that occur on off-system roadways by five percent from the previous year through 2029.

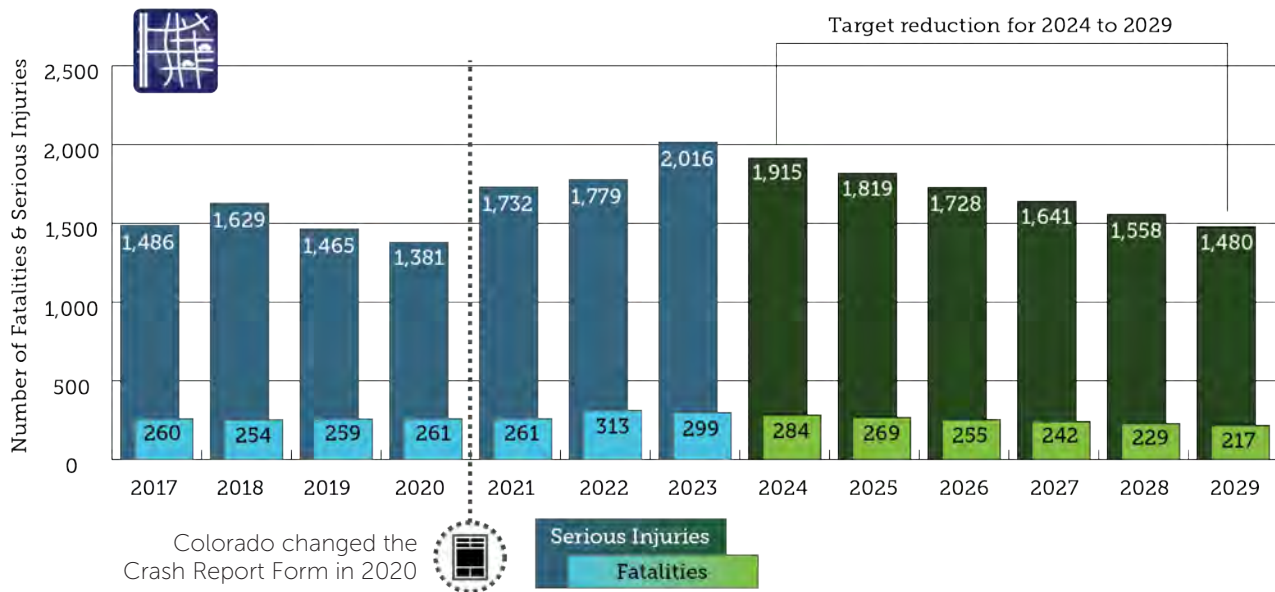


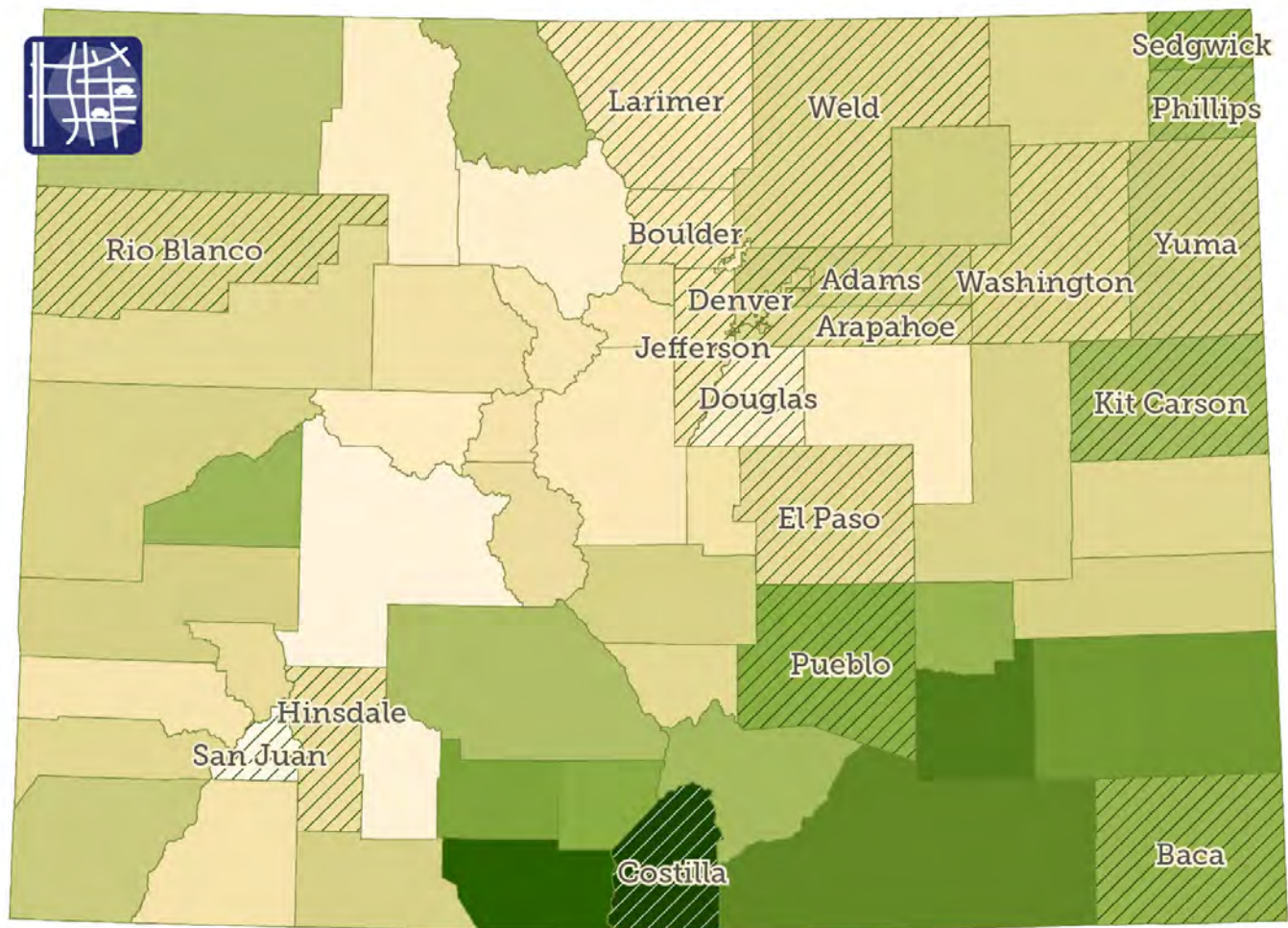
Figure 8-5: Off-System-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Off-system roadways refer to public roadways that are not maintained by the State of Colorado. This means that local jurisdictions (e.g., city, town, county) are responsible for the maintenance and operations of these roadways, including identifying and mitigating safety concerns. While the State is not directly responsible for these networks, safety improvements should be implemented in cooperation with state and local agencies to maximize crash reduction throughout Colorado.

Off-system roadways comprise approximately 90% of the total centerline miles and account for about half of the annual vehicle miles traveled (VMT). While 52% of fatal and serious injury crashes occur on state highways, 48% happen on off-system roadways. This emphasizes the importance of continuing to improve off-system roadways and emphasizing the Safe System principle that responsibility is shared across state and local agencies.

Figure 8-5 shows a steady upward trend in off-system fatalities and serious injuries. In 2023, there were 2,315 off-system fatalities and serious injuries, representing over half of the fatalities and serious injuries in the state. Prioritizing safety on these roadways is critical to reduce the number of fatalities and serious injuries.

Figure 8-6: Top Counties of Off-System-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver               | San Juan                |
| 2    | El Paso              | Baca                    |
| 3    | Arapahoe             | Hinsdale                |
| 4    | Adams                | Washington              |
| 5    | Jefferson            | Costilla                |
| 6    | Larimer              | Sedgwick                |
| 7    | Boulder              | Kit Carson              |
| 8    | Weld                 | Yuma                    |
| 9    | Douglas              | Phillips                |
| 10   | Pueblo               | Rio Blanco              |

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 8-6 shows the counties that have the highest number off-system-involved fatalities and serious injuries. This graphic may seem surprising initially, as Denver County has the highest number of off-system-involved fatalities and serious injuries. This is due to most city streets in large cities and towns being off-system roadways, not all off-system roadways are rural roadways. The rural roadway representation can be seen in the top counties of off-system involved fatalities and serious injuries per capita with San Juan, Baca, and Hinsdale counties being the top counties per capita.

High Risk Rural Roads (HRRR) are important to note within the Off-System focus areas as they align in many cases. The Off-System strategy of providing assistance to local agencies can help local agencies identify HRRRs on their local systems and identify safety improvement projects to improve safety on these HRRRs.

### Off-System Strategies

Due to the shared responsibility of safety on off-system roadways, this Focus Area identifies strategies to support local jurisdictions in making safety improvements on local roadways.

#### **SR3: Provide local agency assistance**

**Provide detailed guidance to local agencies on how to apply for state and federal safety funding and improve outreach to enhance awareness and participation in the Safety Circuit Rider Program, the LTAP, and other relevant assistance programs.**

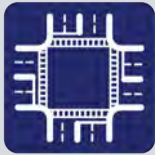
This strategy aims to strengthen support for existing programs, like the Safety Circuit Rider, that provide technical assistance, training, and safety-program support to local agencies to enhance roadway safety across the state. Several different types of funding sources are available including the Highway Safety Improvement Program (HSIP), which is a core federal-aid program to states for the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads.

#### **SR4: Encourage community-specific plans**

**Encourage local agencies to create community-specific safety plans and actively participate in their development, ensuring alignment with the Strategic Highway Safety Plan (SHSP) goals.**

This strategy increases outreach efforts and provides targeted support to help local agencies develop community-specific plans aligned with the goals of the Strategic Highway Safety Plan (SHSP). This alignment results in local safety plans that meet state and federal grant criteria, making it easier to secure funding for projects. Some examples of these community specific plans are Safe Streets for All (SS4A) and building Complete Streets toolkits to guide local governments in planning, designing and implementing roadway designs to accommodate all road users.

# Intersections



**Focus Area Definition:** Crashes occurring at intersections or are intersection-related.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries that occur at intersections by five percent from the previous year through 2029.

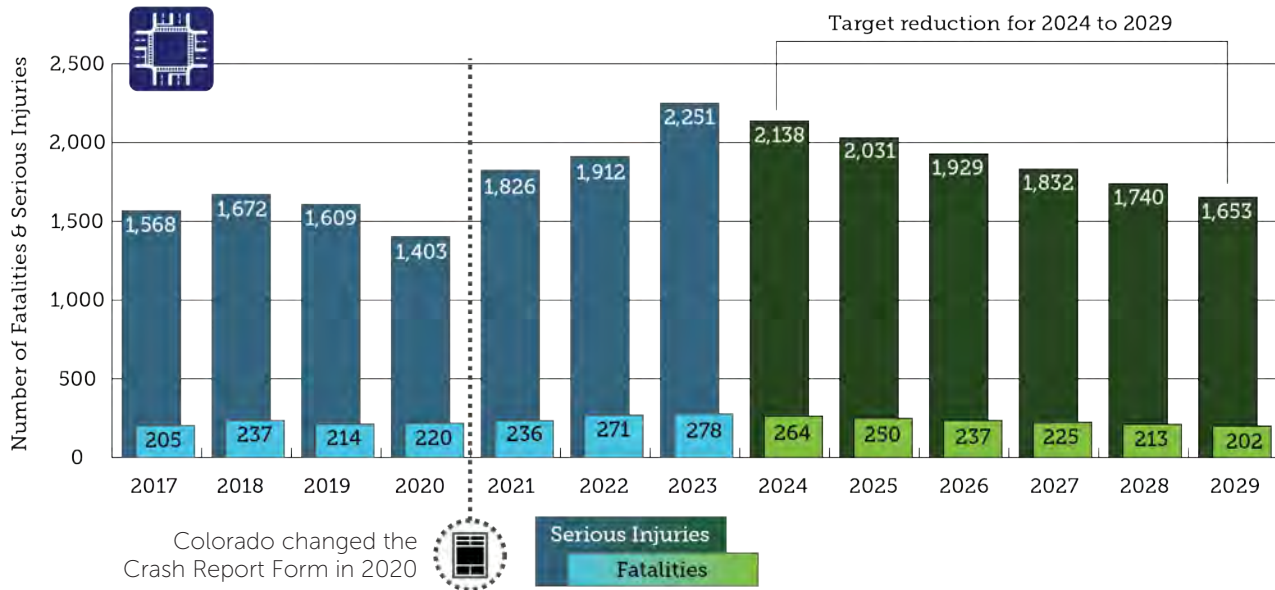
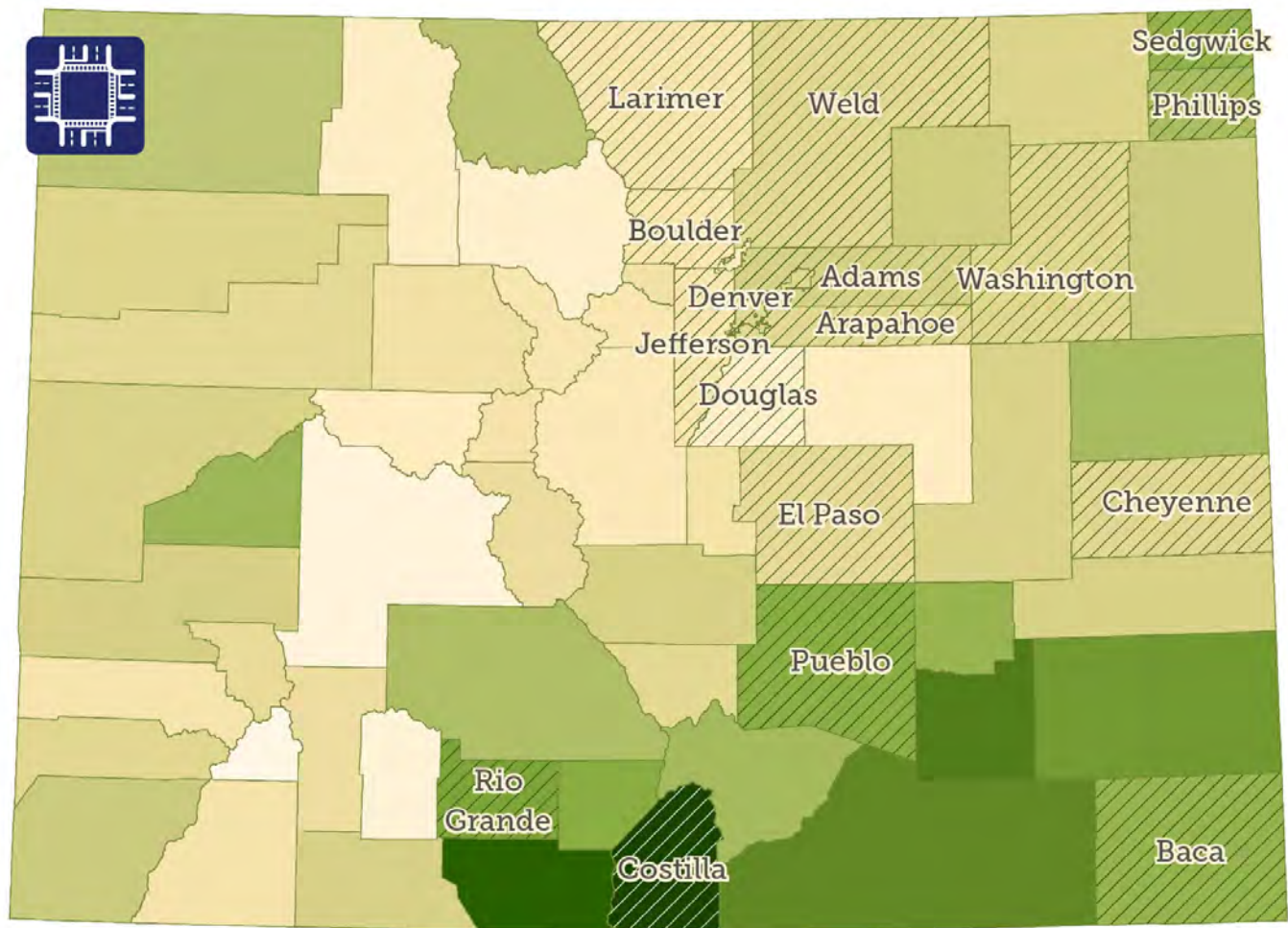


Figure 8-7: Intersection-Involved Fatalities and Serious Injuries by Year (2017 to 2023)

Intersections are points where two or more roads cross or meet, bringing together different road users and increasing the chance of collisions. Figure 8-7 defines intersection related crashes as crashes that occur at intersections, but does not include driveway access related crashes. The severity of a crash depends on factors like the angle of impact, speed, and the size of the vehicles involved. Intersections account for 56% of all reported crashes and 51% of all fatal and serious injury crashes in Colorado (Figure 8-1). From 2017-2023, there has been a consistent upward trend in the number of fatalities and serious injuries occurring at intersections (Figure 8-7). In 2023, intersection crashes resulted in 278 fatalities and 2,251 serious injuries. Addressing intersection-related crashes is critical to reducing the overall number of severe crashes statewide.



Figure 8-8: Top Counties of Intersection-Involved Fatalities and Serious Injuries



| Rank | Top Counties Overall | Top Counties per Capita |
|------|----------------------|-------------------------|
| 1    | Denver*              | Phillips                |
| 2    | El Paso              | Denver*                 |
| 3    | Arapahoe             | Sedgwick                |
| 4    | Adams*               | Baca                    |
| 5    | Jefferson            | Washington              |
| 6    | Boulder*             | Boulder*                |
| 7    | Weld                 | Costilla                |
| 8    | Larimer              | Rio Grande              |
| 9    | Douglas              | Adams*                  |
| 10   | Pueblo               | Cheyenne                |

\* represented in both top and per capita categories

#### Map Legend

##### Weighted TDI Score

Low High



Diagonal Striping = Top 10 overall and/or per capita counties

This map shows the Transportation Disadvantage Index (TDI) and labels the top 10 counties for total fatalities and serious injuries, along with the top 10 counties with the highest per-capita impact among relevant demographics. The table provides rankings for both categories.

Figure 8-8 shows the counties that have the highest number of intersection-involved fatalities and serious injuries. Top counties overall tend to be the more highly populated urban areas, which also have a higher density of intersections along the transportation network. On a per capita basis, Denver, Boulder, and Adams county are represented as well as rural counties to the east and south.

The three most prevalent crash types at intersections are broadside, approach-turn, and VRUs. Targeted efforts to raise awareness and reduce these crash types are key to mitigating intersection-related crashes.

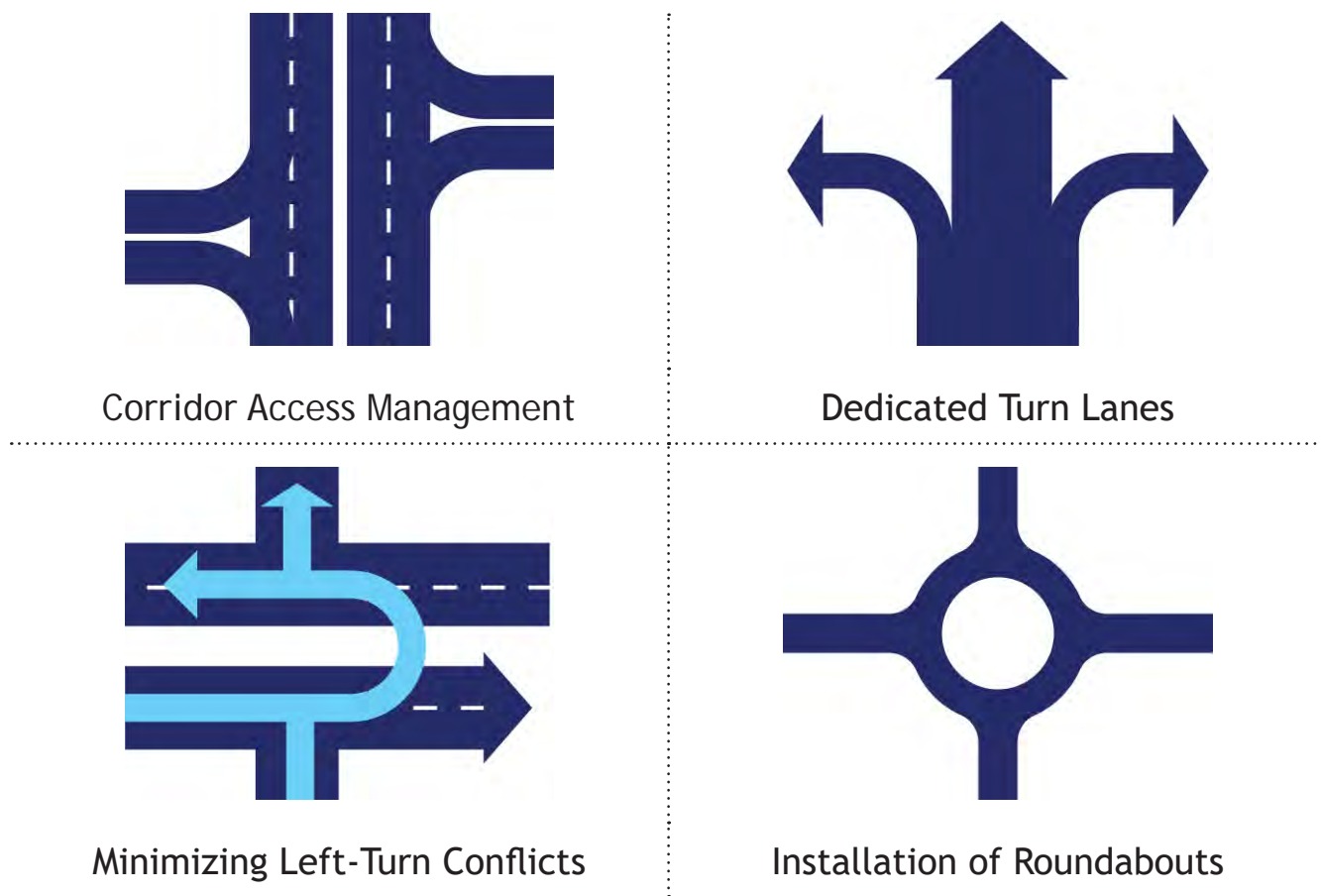


Figure 8-9: Key Safety Countermeasures to Reduce Intersection-Related Crashes

According to the U.S. Department of Transportation (USDOT), corridor access management, dedicated turn lanes, minimizing left-turn conflicts, and roundabouts are safety countermeasures proven to reduce intersection-related crashes. These proven countermeasures reduce crash severity by managing impact forces on drivers, occupants, and all other road users. Not all intersection types are familiar to road users; education and training can help individuals properly navigate intersections safely.

## Intersection Strategies

### **SR5: Reduce intersection conflicts**

**Implement design and operational improvements that reduce the number of conflicts at intersections, especially those experiencing a high number of severe broadside and approach-turn crashes (Aging Pedestrian Strategy).**

This strategy aims to reduce intersection conflicts that often result in broadside or approach turn crashes, accounting for 54% of all fatal and serious injury crashes. Good access management principles reduce or eliminate these conflicts at intersections by combining accesses, reducing the allowable movements at intersections, or implementing alternative routes such as service roads on high-traffic roadways. Alternative or innovative intersection types can have fewer conflicts by design.

### **SR6: Perform Intersection Control Evaluations (ICE)**

**Perform ICE prior to upgrading or constructing intersection improvements.**

This strategy emphasizes the importance of preemptively addressing crashes through the application of a data-driven, performance-based framework to screen intersection alternatives and select an optimal solution.

### **SR7: Incorporate VRU designs**

**Incorporate project design elements to improve safety for Vulnerable Road Users (VRUs) where there is a high number of fatal/serious injury VRU crashes (Aging Pedestrian Strategy).**

Intersections create additional risk for pedestrians and bicyclists. Traditionally, intersection design has prioritized motorists over VRUs. This strategy shifts focus to designing intersection improvements that enhance safety for VRUs, particularly pedestrians, utilizing proven safety countermeasures.

### **SR8: Prioritize high-risk intersection locations**

**Improve safety at high-risk intersections by addressing design deficiencies such as inadequate lighting, insufficient sight distance, and substandard turning radii.**

Data analysis identifies over 3,000 severe crashes at intersections with poor lighting or insufficient visibility, with pedestrian crashes disproportionately common. This strategy addresses intersection deficiencies to enhance driver and pedestrian safety. FHWA identifies having greater sight distances at an intersection as a proven countermeasure that can greatly improve safety at an intersection.

### **SR9: Implement improved traffic controls**

**Implement improved traffic controls at intersections with a high frequency of broadside, approach turn, and rear-end fatal and serious injury crashes (Aging Drivers & Pedestrians Strategy).**

In situations where physical improvements are infeasible, this strategy focuses on cost-effective traffic control measures to reduce the frequency of severe crashes. Targeted improvements include enhanced striping and signage, signal systems, and other traffic control measures to mitigate crash risk.

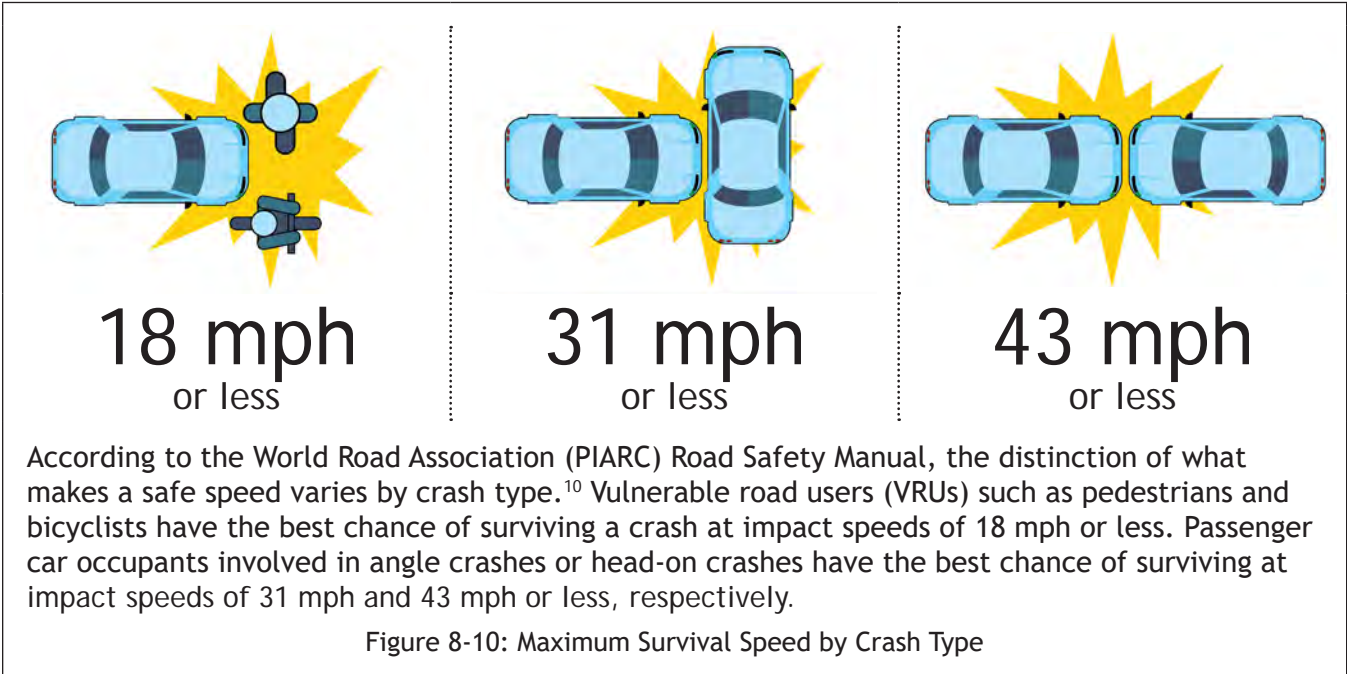
# Speed Management



**Focus Area Definition:** Roadway safety issues that are related to speed fostered by the roadway environment.

**Focus Area Goal:** Reduce the number of fatalities and serious injuries occurring at high speed by five percent from the previous year through 2029.

Vehicles traveling at higher speeds increase both the probability and severity of crashes. Higher speeds reduce the available time for a driver to perceive and react to an unexpected event. Further, higher speeds result in larger kinetic energy transfer to the human body during a crash, leading to more severe crash outcomes.



Driver speed is a psychological factor and driver, vehicle, roadway, and environmental characteristics are all factors that influence driving speeds. This Focus Area promotes roadway infrastructure design elements that encourage lower speeds, thus reducing crash risk and severity. Because Colorado’s crash report does not provide detailed roadway characteristics, a crash summary is not available for the Speed Management Focus Area.

Most drivers will select a speed they consider appropriate for the conditions. This decision is dependent on several factors, including the driver’s perception of risk, traffic flow (i.e., the speed of other vehicles around them), and road design. Specific roadway design characteristics that influence driver speed choice include cross-sectional elements (e.g., number of lanes, lane width, shoulder width, and median type), access point density and intersection spacing, horizontal curvature, vertical grades, roadside conditions, and sight distance.

<sup>10</sup> The Safe System Approach,” The Safe System Approach | Road Safety Manual - World Road Association (PIARC), accessed December 13, 2024, <https://roadsafety.piarc.org/en/road-safety-management/safe-system-approach>.



Roadways have two primary transportation functions: mobility and access. Roadway classification describes where different categories of roadways fall within these functions. Very high mobility roadways (e.g., freeways and expressways) permit less access to adjacent land while minor roads (e.g., residential local streets) have much lower mobility but a high level of access. Arterials and collectors fall between these two extremes with arterials providing a higher level of mobility and collectors providing a higher level of access.

Principal Arterial and Minor Arterial roadways account for nearly 60% of all fatal crashes (Figure 8-11), while only accounting for 40% of the total vehicle miles traveled (VMT). Crashes on these roadway types are disproportionately high when exposure is considered. In Colorado, interstate highways account for 15% of all fatal crashes, while accounting for 28% of all VMT. On a miles traveled basis, interstate highways are safer than arterials. The Principal Arterial and Minor Arterial roadway environment and how it contributes to speeding and other crash contributing factors are key subjects of this Focus Area.

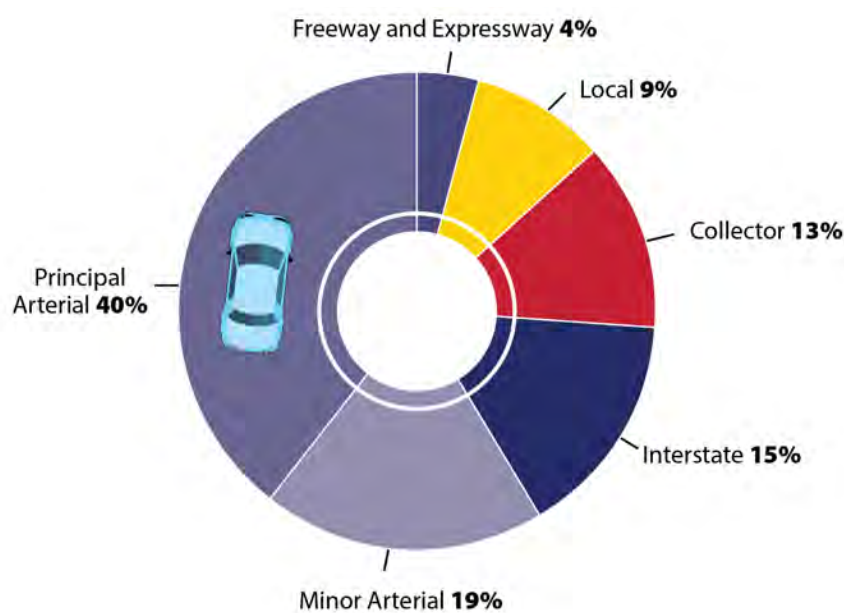


Figure 8-11: Fatal Crashes by Roadway Classification

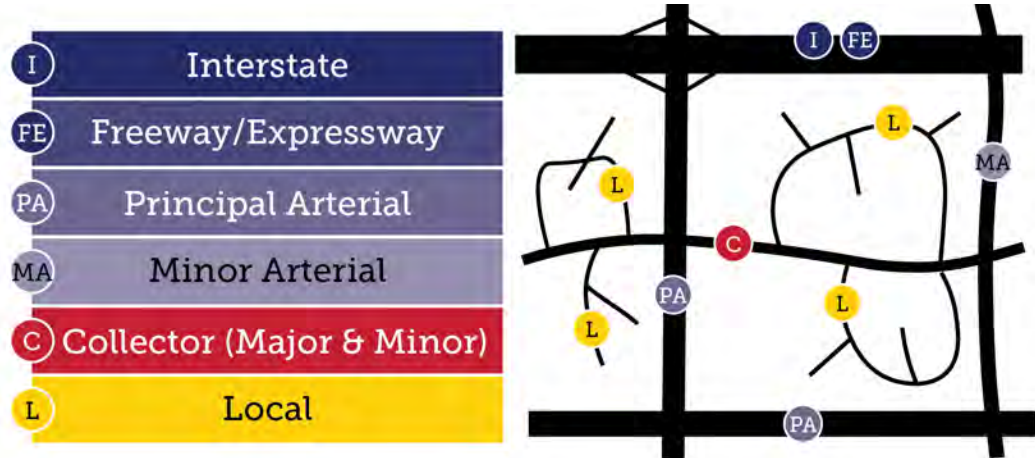


Figure 8-12: Typical Features of Roadway Functional Classifications

## Speed Management Strategies

### **SR10: Promote appropriate speeds**

**Modify the transportation system to promote appropriate vehicle speeds at locations where higher speeds contribute to severe crashes.**

Higher speeds carry more kinetic energy and decrease response times by drivers, which results in higher crash severities, especially in crashes involving VRUs. This strategy considers the design of the roadway environment and how it contributes to driver behavior. The goal is to implement transportation system improvements that encourage safer speeds. Some examples include bump-outs where there are pedestrian crossings or narrowing the perceived width of a roadway on high-speed segments.

### **SR11: Set safe and realistic speed limits**

**Set safe and realistic speed limits by considering contextual factors such as road function, land use, traffic volume, active transportation activity, crash history, environmental conditions, and road design.**

This strategy encourages the use of context-sensitive speed limit setting practices. Context-sensitive speed limits consider factors such as road function, land use, traffic volume, pedestrian activity, crash history, environmental conditions, and road design. While lower speed limits generally improve crash outcomes, areas where drivers feel comfortable traveling at higher speeds require careful consideration to prevent speed differentials that contribute to increased crash risk.



## Chapter 9: Post-Crash Care

# Introduction

Post-Crash Care refers to the collective ability to increase survivability of crashes by responding to crashes in a timely manner, minimizing the severity of injuries, preventing secondary crashes, and providing a safe environment for those responding to crashes. All actions in providing effective care for the injured are time-sensitive, starting with activating the emergency care system, continuing with care at the scene, then transporting to a health care center, and finally caring for the victim(s) at the medical facility.



## Focus Areas

Post-Crash Care includes two Focus Areas:

Emphasis Area:



Post-Crash Care

Focus Areas:



Traffic Incident Management



Emergency Medical Services

Strategies in the Post-Crash Care Emphasis Area address both Focus Areas.



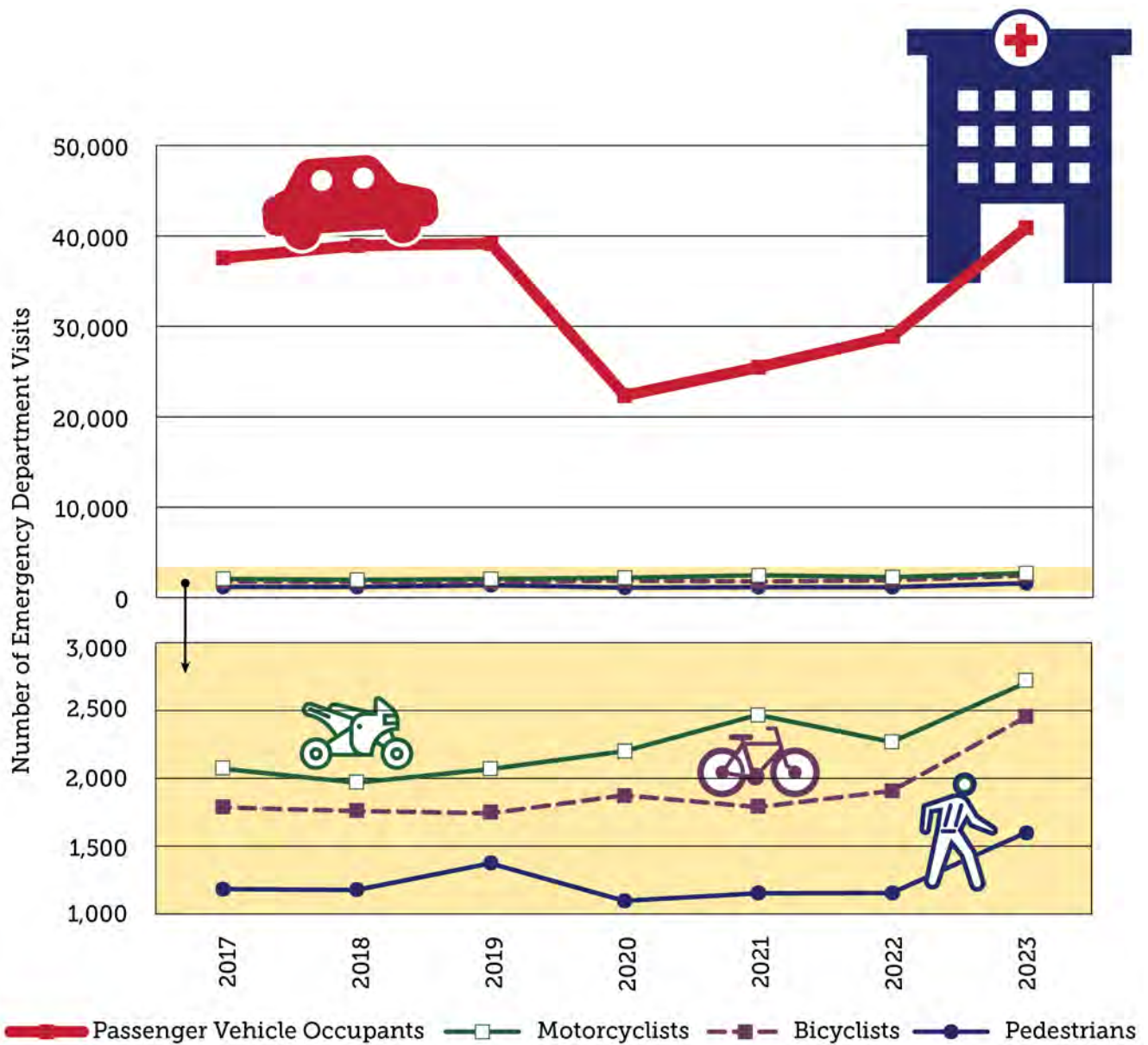


Figure 9-1: Emergency Department Visits by Mode (Source: CDPHE)

According to Colorado Department of Public Health and Environment (CDPHE) data, the number of emergency department visits from roadway crashes have steadily increased across all modes, but particularly for pedestrians, bicyclists, and motorcyclists. From 2017 to 2023, the number of emergency department visits increased by 35% for pedestrians, 37% for bicyclists, and 31% for motorcyclists. In comparison, the number of visits for passenger vehicle occupants increased by 9% over the same period.

## Traffic Incident Management



Traffic crashes happen daily on Colorado's roads, necessitating a coordinated effort from all first responders including law enforcement, emergency medical services (EMS), and towing companies to manage the aftermath safely and efficiently.

These teams collectively engage in Traffic Incident Management (TIM) with the objectives of reducing crash duration, restoring normal traffic flow, and maintaining safety at the crash scene. According to crash data, there were 4,679 secondary crashes in Colorado from 2021 to 2023, resulting in 177 serious injuries and 28 fatalities. A secondary crash is defined as a crash occurring within an incident scene area or within a traffic queue, including the opposite direction, resulting from an original crash. Such crashes are particularly dangerous for crash response teams.

To improve safety at crash sites, Colorado is actively enhancing training programs, expanding the use of technology for better communication with drivers and responders, and increasing public awareness through campaigns. Colorado has a statewide TIM program to coordinate efforts and to facilitate continuous dialogue on best practices.

## Emergency Medical Services



The effects from a crash linger well beyond the initial impact. EMS are vital in this life-saving process through rapid response and appropriate care.

According to 2018-2022 data from the Fatality Analysis Reporting System (FARS) published by the National Highway Traffic Safety Administration (NHTSA), 60% of fatalities from Colorado crashes died at the scene, while five percent died en route to medical services, and 35% succumbed to their injuries later. Immediate medical intervention is critical, as it often determines whether a crash results in an injury or escalates to a fatality.

To deliver the highest standard of care and minimize injury severity and long-term costs, it is essential that EMS systems are adequately staffed and equipped. According to the CDPHE, 911 response calls increased 13% from 2019 to 2022, and interfacility transport has increased by 17%, both of which are higher than the 2.9% statewide population growth in the same period. The expansive geography of Colorado and the disparate density of services between urban and rural regions result in a wide variability in response time and consistency of care. Enhancing EMS effectiveness involves developing a comprehensive trauma system, elevating the level of care provided by trauma centers, and standardizing EMS practices to reduce variability in care. Colorado's EMS efforts are led by the State Emergency Medical and Trauma Services Advisory Council (SEMTAC).

## Post-Crash Care Strategies

The following five strategies help to advance the standard of practice for both TIM and EMS activities across Colorado and promote multidisciplinary coordination.

### **PC1: Improve collection of post-crash care data**

**Improve data collection, analysis, and dissemination procedures to allow for increased integration of data between safety partners.**

Quality data are needed to inform practitioners on the process and outcomes of activities that address post-crash care. Data enables a better understanding of the impact of timely response, quality of care, and adherence to performance metrics. For example, post-crash care practitioners can review 911 data to analyze the elapsed time between notification and the dispatch of field resources. Since agencies vary in size and sophistication, there is a range in data capabilities and metrics across Colorado. Activities for this strategy include examining methods to improve data integration and standardization.

### **PC2: Improve quality of care**

**Develop processes to improve quality of care for those involved in crashes from onset of crash through treatment.**

Agencies and organizations involved with post-crash care understand the programs and initiatives that need to be performed to improve quality of care; however, implementation is challenging. Documented processes that include prioritized actions and milestones to track progress are needed. The SEMTAC is an existing collaborative group that can facilitate prioritized activities to improve quality of care.

### **PC3: Provide education on post-crash care best-practices**

**Implement programs to educate practitioners and the public on best practices on post-crash care activities.**

It is important for practitioners to receive the necessary training and education to fully understand the challenges that limit progress on addressing post-crash care and the promising activities that can help to overcome these concerns. Furthermore, education and opportunities to collaborate with other partners can help to identify efficiencies. Organizations like the SEMTAC could help to establish and monitor an improved post-crash care education program.

### **PC4: Enhance programs in light of differences in post-crash care outcomes**

**Evaluate opportunities to improve post-crash care environment and determine opportunities to enhance programs and activities.**

A major gap in providing quality post crash care is the notable difference between urban and rural areas in the time between a crash and when a victim arrives at a hospital. The remoteness of crash locations and the lower density of EMS providers and facilities in rural areas contribute to longer response times. Activities such as implementing new technologies can help to address these challenges.

## PC5: Support statewide traffic incident management (TIM) activities

### Continue to support statewide TIM activities.

Colorado has an extensive statewide TIM program that includes activities that provide education and training opportunities, deploy safety patrols, and host an electronic resource library. This strategy focuses on continuing and enhancing these existing activities and strengthening the connection between incident management with the other Emphasis Areas. Education and training also can reduce secondary crashes on the roadway as activities are optimized and resources are shared between agencies and organizations.



EMS professionals are often first responders in emergencies, where they encounter patients suffering from severe trauma, hemorrhage, or other critical conditions requiring immediate medical intervention. Transfusions administered closer to the time of injuries using whole blood increase the chance of survival. Whole blood contains all blood components - red blood cells, platelets, and plasma. The integration of whole blood into pre-hospital care enhances the capacity of EMS to save lives and improve outcomes in emergency situations. Colorado has a Whole Blood Coalition with the mission to implement whole blood programs statewide.





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## Chapter 10: Implementation

Effective implementation of the Strategic Highway Safety Plan (SHSP) requires coordination and collaboration among all stakeholders. The SHSP defines a system, organization, and a process to achieve an enhanced level of roadway safety by integrating the work of the disciplines and agencies involved. Strategies and implementation efforts provide a structured framework to integrate efforts from local, county, regional, state, Tribal, and federal agencies, along with private sector and advocacy groups. This multidisciplinary approach unites all stakeholders in a shared mission to enhance roadway safety. This chapter outlines approaches to implementing the SHSP through action planning, collaborating, and monitoring.

## Focus Area Categorization

The SHSP identified Focus Areas that could have the greatest impact on fatalities and serious injuries over the next five years. In this section, Colorado looked deeper at the data trends within individual Focus Areas to identify commonalities that allow them to be grouped into categories to illustrate the underlying trend. The Focus Area categorization helps inform the development of effective actions based on these data trends.

Focus Area categories include:

- » **Safety Culture:** Focus Areas that are overarching and aim to grow safety supportive beliefs and behaviors among organizations and the public.
- » **High-Impact:** Focus Areas with the highest proportion of fatalities and serious injuries. Effective strategies in these areas will lead to greater impacts in reducing fatalities and serious injuries. Strategies and actions under the High-Impact Focus Areas will prioritize efforts proven to have a positive impact on safety. Engineers, planners, and other stakeholders can look to these Focus Areas to identify opportunities to have the greatest impact on reducing fatalities and serious injuries.
- » **Emerging and Monitoring:** These areas are experiencing increasing numbers of fatalities and serious injuries or other external factors such as policy changes or emerging technologies. Strategies and actions under the Emerging and Monitoring Focus Areas will evolve and be more flexible in response to the monitoring efforts. The strategies and actions will also be supported by data-driven successes while also being open to piloting new approaches.
- » **Double Down on Success:** Focus Areas where severe crash reduction is actively being addressed, and fatalities and serious injuries are stable or decreasing. These areas may have programs and policies in place or have active stakeholder initiatives supporting safety improvements. The Double Down on Success Focus Area strategies and actions replicate, adopt, and adapt activities with previous demonstrated success in improving safety.

Figure 10-1 illustrates the categorization of each Focus Area. Strategies within each Focus Area align with the overall category to encourage effective and efficient implementation. For example, strategies within Focus Areas under the Emerging and Monitoring category emphasize monitoring data trends and adjusting efforts to reflect the changing landscape of the safety challenges. In comparison, strategies under the Doubling Down on Success category aim to build on previous successes and expand effective programs and projects.





Figure 10-1: Focus Area Categorization

## Action Plans

Successful SHSP implementation will result in transportation safety improvements that save lives and reduce injuries. The SHSP is implemented through the objectives, strategies, and Annual Action Plans developed for each Emphasis Area.

Annual Action Plans are updated through the ATS initiative and identify next steps for selected strategies, assign implementation champions and establish timelines to turn SHSP concepts and ideas into a reality.



Figure 10-2: SHSP Action Plan Framework

The Emphasis Areas, Focus Areas, and strategies outlined in the SHSP create the framework for reducing fatalities and serious injuries. Action planning transitions from planning to effective implementation. The action planning framework is illustrated in Figure 10-2. The priority of action planning is to advance efforts within each Focus Area to reach the SHSP goals.

Annual Action Plans promote effective and efficient implementation as individual safety improvement actions are refined and improved over time. Changes in transportation safety are often unpredictable and require flexible strategies and actions. The SHSP is updated every five years, allowing five years for potential changes in areas such as legislation, technology, public health, planning and engineering, and best practices. For example, the recent introduction of the Colorado hands-free law, introduced a need for additional education and media outreach.



## Develop an Action Plan

The Advancing Transportation Safety (ATS) initiative develops Annual Action Plans that provide a blueprint for implementation of the SHSP. In order to produce, implement, and refine Annual Action Plans, ATS engages Emphasis Area Working Groups that meet monthly. At quarterly working group meetings, action champions report out on progress of each specific strategy.

The 2025 SHSP's inaugural Annual Action Plan will be informed by members of the ATS Emphasis Area Working Groups and finalized and adopted by the ATS Steering Committee by the end of Federal Fiscal Year (FFY) 2025. The Annual Action Plan is a living document with formal updates and reporting occurring at 12-month intervals over the life of the SHSP. Annual Action Plans will include assessment of strategy readiness and identification of funding sources, resources available, cost effectiveness, champions, inter-agency partnerships, performance measures, and timelines.

When identifying actions, ATS establishes the following:

» **Champion(s): Determine the stakeholder(s) to lead or support implementation.**

This process requires ATS members to identify which individuals will be responsible for a specific strategy or action.

» **Partnerships: Determine the long-term 'owner(s)' of the strategy.**

Many of the strategies selected for implementation benefit from collaboration across organizations and agencies. Members of ATS enlist support for the Champion(s) during implementation, often based on historical partnerships and shared safety improvement priorities. Other agencies may advance strategies independently through their own strategic planning or programming. In such cases, ATS maintains communication with the lead agencies to collect periodic updates and tracking information. Identifying who is the long-term owner and engaging them early fosters sustainability.

» **Effectiveness: Determine the potential impact on fatalities and serious injuries.**

The ATS initiative identifies the potential impact of each action on SHSP overall goals and Focus Area goals, and the cost-effectiveness of each action. Cost-effectiveness evaluations weigh the expense of implementing an action against its effectiveness in reducing fatalities and serious injuries measured in monetary terms using approved data sources, like Federal Highway Administration's (FHWA) Proven Safety Countermeasures, National Highway Traffic Safety Administration's (NHTSA) Countermeasures that Work, and the CMF Clearinghouse as well as evaluation results from peer states. For HSIP and other safety funding programs, formal cost-effectiveness of individual projects is developed at the time of grant application following the Benefit Cost Analysis (BCA) processes outlined in those programs. ATS also develops theories of change that define the needed skills/knowledge/beliefs and behaviors to achieve the desired outcomes, increasing the likelihood of timely and effective implementation.

» **Level of Effort: Determine the ease of implementation.**

This includes identifying the resources in place to support implementation or identifying and characterizing current and future challenges. Resources may include funding streams, staffing availability, policies, and political will.

The Annual Action Plans compile inputs for the above elements and determine a Readiness Score for implementation of SHSP strategies. The resulting scores identify strategies with the structures in place for immediate implementation and the greatest impact.

Strategies may also be categorized as mid-term (two-to three years) and long-term (four to five years). For example, mid-term strategies have supporting elements, such as proven effectiveness, but lack sustained champions or resources. Actions for mid-term strategies may focus on securing needed resources or selecting a champion to increase the strategy's readiness. Actions for long-term strategies may include additional groundwork such as identifying financial support, educating stakeholders, growing support among leaders, and identifying potential champions.

The ATS Annual Action Plan process allows the ATS to codify a focused implementation roadmap that stays current and adapts over the five-year implementation period of the SHSP.

## Action Plan Reporting and Evaluation

Led by the groundwork conducted to measure strategy readiness and identify powerful actions, Annual Action Plans and Annual Reports serve as the mechanism to report and measure success in SHSP implementation. Annual Reports evaluate the current status of actions within each strategy, and analyze data to determine progress on the performance measurement targets identified in the SHSP at the Focus Area and Statewide levels. Annual Reports are utilized by the Emphasis Area Working Groups and Steering Committee to develop and refine the subsequent Annual Action Plan. Annual Reports will be completed alongside development of the Annual Action Plan.

Regular meetings with ATS members provide an opportunity for reporting on the progress of assigned strategies and actions, supporting continuous improvement and collaborative problem solving. Additionally, Annual Action Plans evaluate the effectiveness of ATS, identifying which strategies and actions were successfully implemented and which outstanding strategies and actions need to be incorporated into the next year's Annual Action Plan.

This evaluation process also provides opportunities for action items to be reassigned, redirected, or removed. Implementation efforts are intended to be flexible to reflect the changes and progress in highway safety-related challenges. Annual Action Plans are nimble and proactive, allowing for ATS and other partners to take on strategies and action items suitable to the implementation environment. Successes illuminate opportunities to double down on what works—both continuing along the forged path as well as applying new concepts to other Focus Areas to test applicability. Challenges or setbacks are opportunities to learn, adjust, and try again.

**Readiness Score:** Members of ATS review strategies for existing partnerships, anticipated effectiveness, estimated level of effort, and existing champions. The exercise results in a Readiness Score that identifies strategies best primed for early implementation. Annual Action Plans document this process annually to identify the strategies ready for implementation each year.

## Promote Additional and Alternative Strategies

While the SHSP is intended to be a holistic roadmap for saving lives, not all elements of traffic safety are featured explicitly within the plan or its strategies. The SHSP prioritizes areas where the State of Colorado can see the largest improvement in safety, and while these are crucial for realizing the SHSP Vision, the plan recognizes that other smaller or tangential efforts also contribute to reducing fatalities and serious injuries.

There is flexibility within SHSP implementation to adapt to new and changing priorities, specifically in support of proven countermeasures, programs, and policies. Implementation efforts are not limited to the strategies identified in the SHSP. The SHSP encourages safety partners to promote and implement strategies to advance transportation safety across the state, including innovative strategies. The SHSP is a tool for identifying regional challenges and expanding opportunities to implement data-driven solutions.

## Align With Regional and Local Safety Planning Efforts

The SHSP's Vision and Mission recognize that achieving zero fatalities and serious injuries requires collaboration with agencies and partners across Colorado. Aligning regional and local safety planning efforts with the SHSP furthers the Safe System Approach tenet that responsibility is shared. Regional and local jurisdictions are encouraged to participate in statewide safety planning initiatives such as ATS, Emphasis Area Working Teams, the Safety Summit, transportation safety task forces, and support safety related legislative efforts. The Statewide Safety Champion, ATS, and Safety Circuit Rider Program are resources for local and regional safety improvements and strategy implementation.

## Identify Funding and Resources

The SHSP must be updated every five years to maintain Colorado's eligibility for federal Highway Safety Improvement Program (HSIP) funding. Each state receives HSIP funds to implement safety programs and projects to improve safety on their roadways. In turn, each state must submit an annual report summarizing the implementation and effectiveness of those safety programs and projects. Colorado's safety expenditures are not limited to HSIP funds, and this section outlines funding resources local agencies can use to address the safety Focus Areas in this plan.

While HSIP funding supports infrastructure improvements, NHTSA focuses on human behavior-related safety initiatives. NHTSA requires Colorado to submit a Triennial Highway Safety Plan (3HSP) and promotes highway safety awareness programs and initiatives. The SHSP's safety priorities align with both the HSIP and 3HSP. Related NHTSA safety improvement initiatives include Section 402 and Section 405 funding programs.

Local agencies can apply for several discretionary grants based on community needs. The Infrastructure Investment and Jobs Act (IIJA) established the Safe Streets and Roads for All (SS4A) program, allocating \$5 billion from 2022 to 2026. Communities receiving SS4A grants are first tasked with developing a safety action plan and can then apply for implementation grants.

Additional discretionary grants are available to improve transportation safety, including Safe Routes to School, Infrastructure for Rebuilding America (INFRA) Grant Program, Railroad Crossing Elimination (RCE) Grant Program, and the Tribal Transportation Program Safety Fund (TTPSF). Colorado's Local Technical Assistance Program (LTAP) offers assistance with securing funding for local roadway safety improvements.

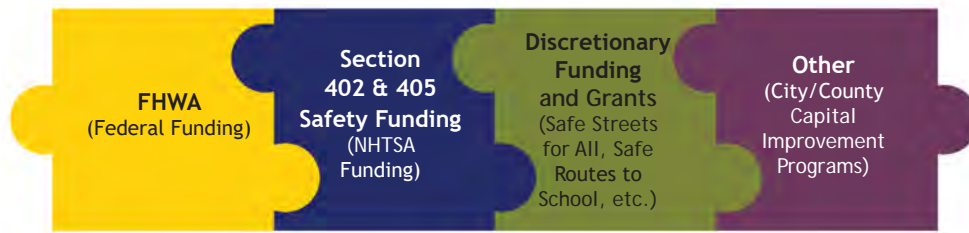


Figure 10-3: Grant Funding Programs and Sources

## Implement the Safe System Approach

The implementation process utilizes the Safe System Approach (SSA) as a guide for holistic safety improvements across Colorado. The SHSP and identified strategies reflect the needs within the Safe System elements (Safety Culture, Safe Driving, Safe People, Safe Roads, Post-Crash Care) and implementation processes will rely heavily on realizing the principles of the SSA. The mechanisms for realizing these principles are highlighted below.

### Death and Serious Injuries are Unacceptable

Implementing the principle that “Death and Serious Injuries are Unacceptable” in Colorado requires a comprehensive vision centered on zero traffic-related fatalities and serious injuries. Each Focus Area within the SHSP sets targets to contribute to the overall goal, with the High Impact Focus Areas having the greatest potential to reduce fatalities and serious injuries. Assessing the effectiveness of these strategies is crucial, and the ATS Annual Action Plan Readiness Score is an essential tool in this regard. Strategies with high Readiness Scores may have success in reducing crash severity and frequency in the near term, subject to sustainable funding and staffing. By focusing implementation efforts on strategies that have a high Readiness Score, Colorado capitalizes on efforts likely to yield “quick wins,” while simultaneously working to improve the readiness of equally important longer term strategies.

### Humans Make Mistakes

This SSA principle involves designing and operating a transportation system that accommodates human errors, preventing common mistakes from leading to deaths or serious injuries. Recognizing that mistakes are inevitable, the SHSP strategies and actions focus on creating forgiving road environments that increase safety redundancy and minimize the consequences of human errors. This involves implementing roadway infrastructure that prevents or minimizes the impacts of crashes if mistakes do occur and exploring advanced technologies to assist roadway users and operators. Colorado’s approach is adaptive and reflects regional needs—whether addressing the high speeds common in rural areas or managing the high volumes of pedestrians and bicyclists in urban areas. By integrating these safety measures and applying a data-driven approach, Colorado remains committed to a context-sensitive approach that includes redundancy to prioritize human life when mistakes occur.

### Humans are Vulnerable

Recognizing that human bodies have finite tolerance for crash forces, the SHSP addresses separating users in time and space and reducing speeds and speed-related behaviors to minimize the impact of



crashes and increase chances of survival. Infrastructure design, lighting, advanced technologies, road signage, and other improvements included in the SHSP improve safety for all users with an emphasis on Colorado's Vulnerable Road Users (VRUs) including pedestrians, bicyclists, and older road users. The state aims to build a transportation system inherently protective of human life and resilient to human vulnerabilities, so that even in the face of errors, fatalities and serious injuries are significantly reduced.

## Safety is a Shared Responsibility

Safety is a shared responsibility involving various stakeholders including planners, designers, public health representatives, first responders, the court system, and road users. Each partner has a unique perspective of the larger system. Primary leaders in implementing the SHSP and sharing the responsibility include the ATS initiative, the Statewide Safety Champion, and agency plan signatories.

ATS:

- » Led by state agency leaders and comprises federal, state, regional, Tribal, and local stakeholders.
- » Evaluates program outcomes annually.
- » Establishes policies, reviews progress, addresses challenges, and promotes collaboration.
- » Develops and implements annual action plans for implementation of SHSP strategies.
- » Meets regularly to track progress and develop performance measures.
- » Provides quarterly progress reports and recommendations to the ATS Steering Committee and to CDOT's Transportation Safety Sponsor Committee.

### **Organizational Safety Culture: Transportation Safety Sponsor Committee**

The Transportation Safety Sponsor Committee, led by CDOT's Chief Engineer, is a committee of CDOT leaders committed to improving traffic safety and fostering safety culture at the organizational level. It is composed of CDOT executive leaders such as the Deputy Director, Chief of Staff, Regional Transportation Directors, and Division Directors for Maintenance and Operations, Communications, and the Office of Transportation Safety. Staff from various CDOT divisions involved in safety give regular updates and receive guidance from the committee.

Statewide Safety Champion:

- » Manages SHSP coordination and evaluation.
- » Serves as the communication link between the ATS Steering Committee and Emphasis Area teams.
- » Oversees safety events and provides analytical support.
- » Reviews progress and coordinates SHSP updates.

Plan Signatories:

- » Promote the pillars identified in the SHSP Partner Pledge: Shared Ownership, Mutual Agency, and Accountability.
- » Lead strategies and action steps relevant to each agency or organization.
- » Engage in events, meetings, and initiatives that support the SHSP's success.
- » Provide resources and expertise to advance the SHSP's implementation.
- » Advocate for a culture of safety by promoting the SHSP whenever possible.

## Safety is Proactive

Implementing a proactive approach to safety requires forward-thinking strategies that anticipate and address safety risks before they result in crashes. The proactive approach includes continuous monitoring of data trends to identify and address emerging safety challenges promptly, rather than waiting for the next five-year plan cycle. Additionally, the SHSP emphasizes risk-based applications like the early identification of high-risk areas and targeted enforcement campaigns to mitigate specific behaviors such as distracted, speeding, or impaired driving. By creating a dynamic system that quickly responds to new data and evolving conditions, Colorado commits to a safety culture where proactive measures continuously improve road safety and prevent crashes from becoming more severe.

## Redundancy is Crucial

As demonstrated throughout the SHSP, Focus Areas often have overlapping safety concerns and strategies. While overlapping strategies may feel redundant, this redundancy is crucial for maintaining a safe transportation system. If one part fails, other parts of the system can prevent fatalities and serious injuries and fulfill the SHSP Vision. This redundancy is present among SHSP strategies and the bodies responsible for implementation. This principle is best illustrated using the “Swiss cheese model” where elements of the roadway network and contributing factors are aligned in layers. When a gap or failure occurs, the next layer of the system intervenes to prevent the failure from leading to a fatality or serious injury.

In the Swiss cheese model, the risk of a crash occurring can be modeled as a series of slices of Swiss cheese. If each slice of cheese represents a layer of defense (for example, wearing a seat belt, driving defensively, a well-maintained vehicle), then each hole represents a weakness in the system. A fatal or serious injury crash occurs when a hole in each slice momentarily aligns, permitting a system failure to occur. More layers of protection (redundancy) reduces the likelihood of a fatal or serious injury crash.

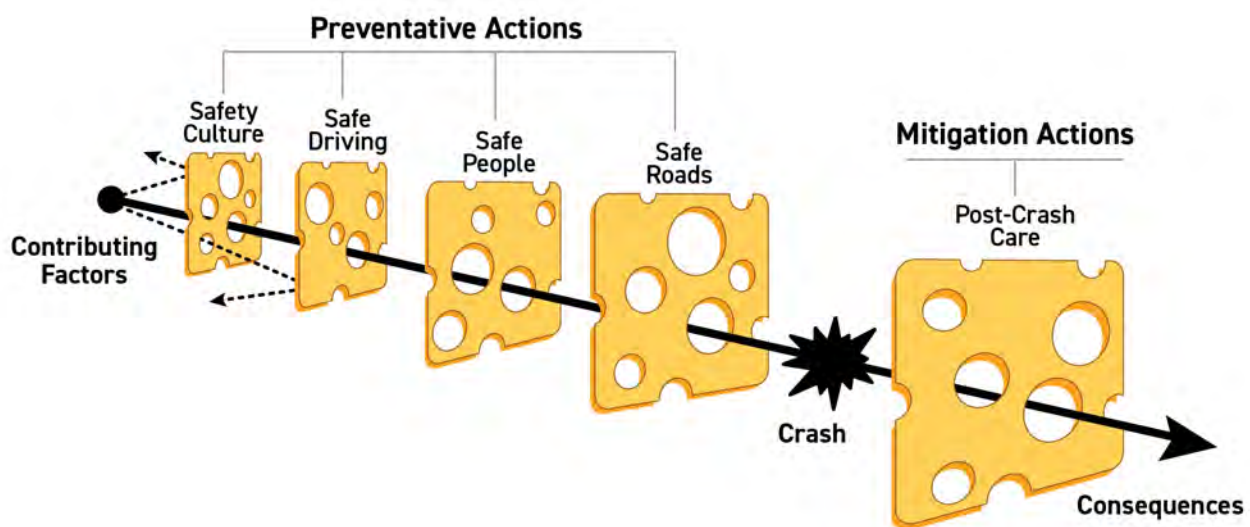


Figure 10-4: Safe System Swiss Cheese Graphic

# Performance Measures and Evaluation

The SHSP aims to reduce fatalities and serious injuries on Colorado’s roadways. It sets performance targets for 2025-2029, relying on lead agencies to implement strategies and allocate resources effectively. The SHSP performance measures align with the 10-year Statewide Plan and Policy Directive 14, which identifies a goal of a 5% reduction in fatalities and serious injuries on a year-over-year basis.

The same performance targets apply for all fatalities and serious injuries, including VRUs. Each Focus Area in the plan will be monitored to identify progress and areas needing additional attention.

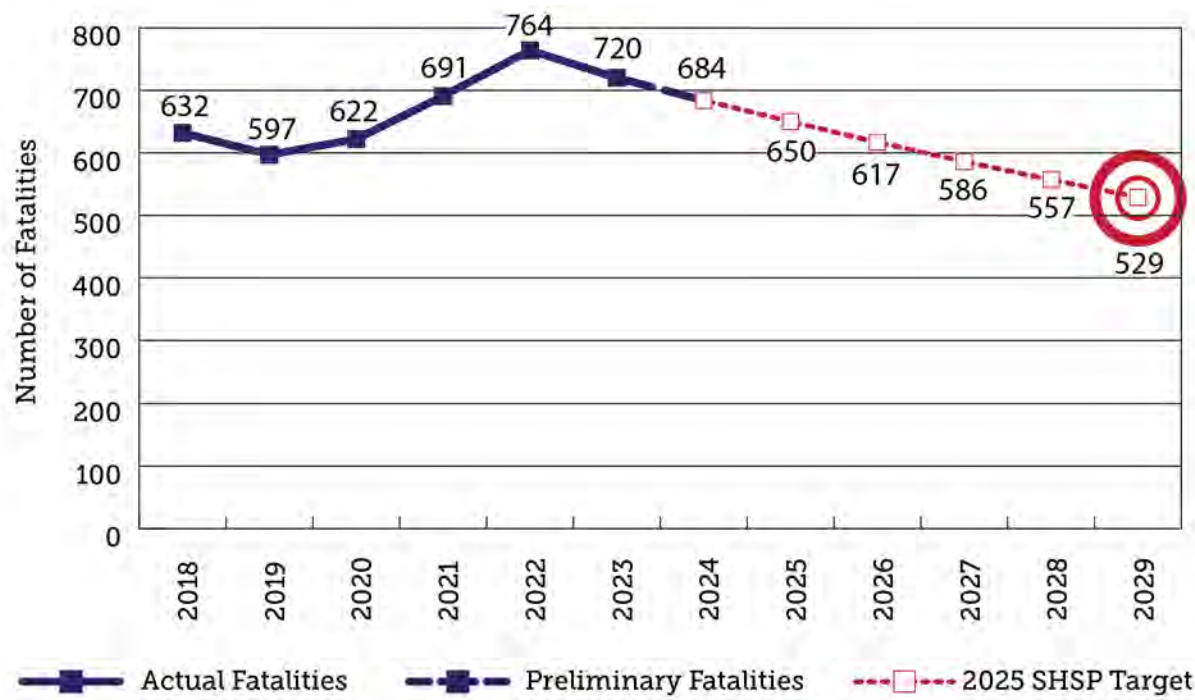


Figure 10-5: Fatalities Performance Measure Goal

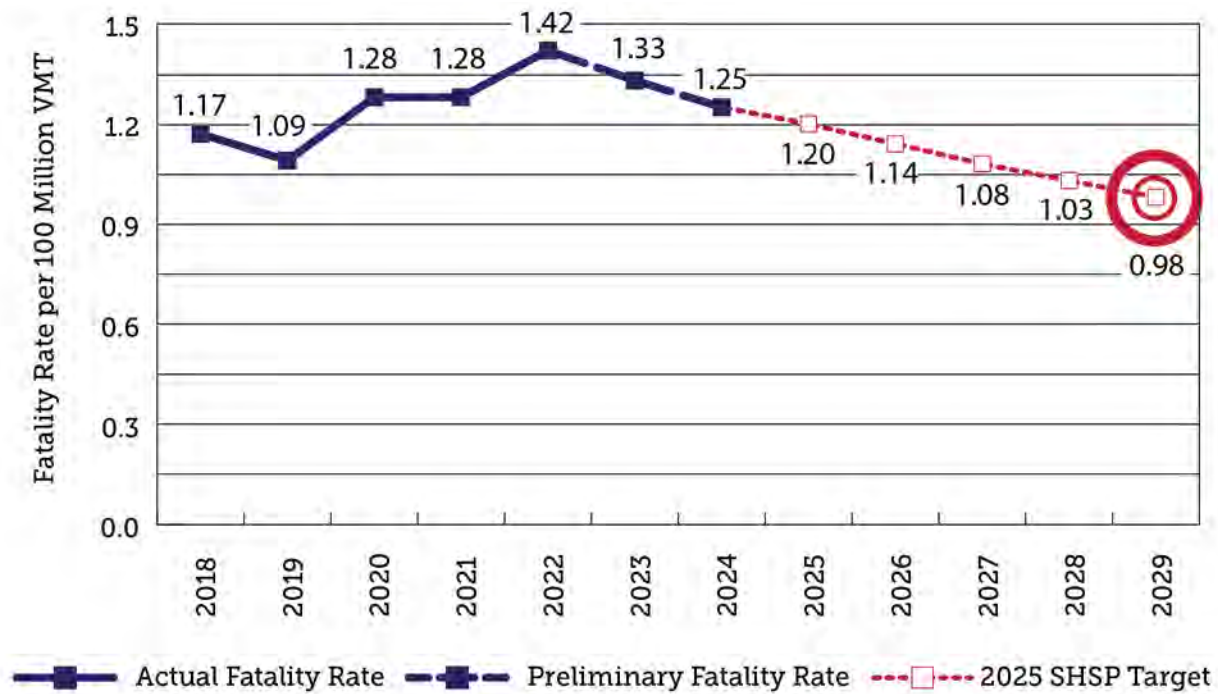


Figure 10-6: Fatality Rate Performance Measure Goal

Note: 2023/2024 VMT Miles not finalized, projected .06% growth rate used.

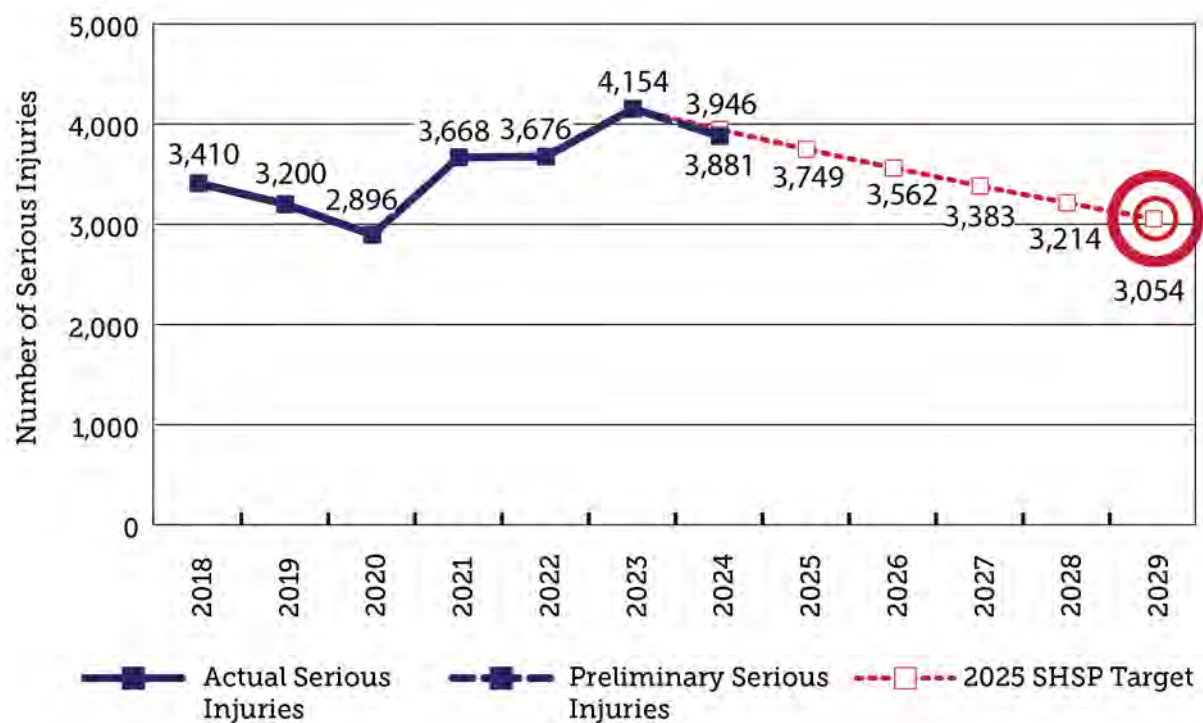


Figure 10-7: Serious Injuries Performance Measure Goal



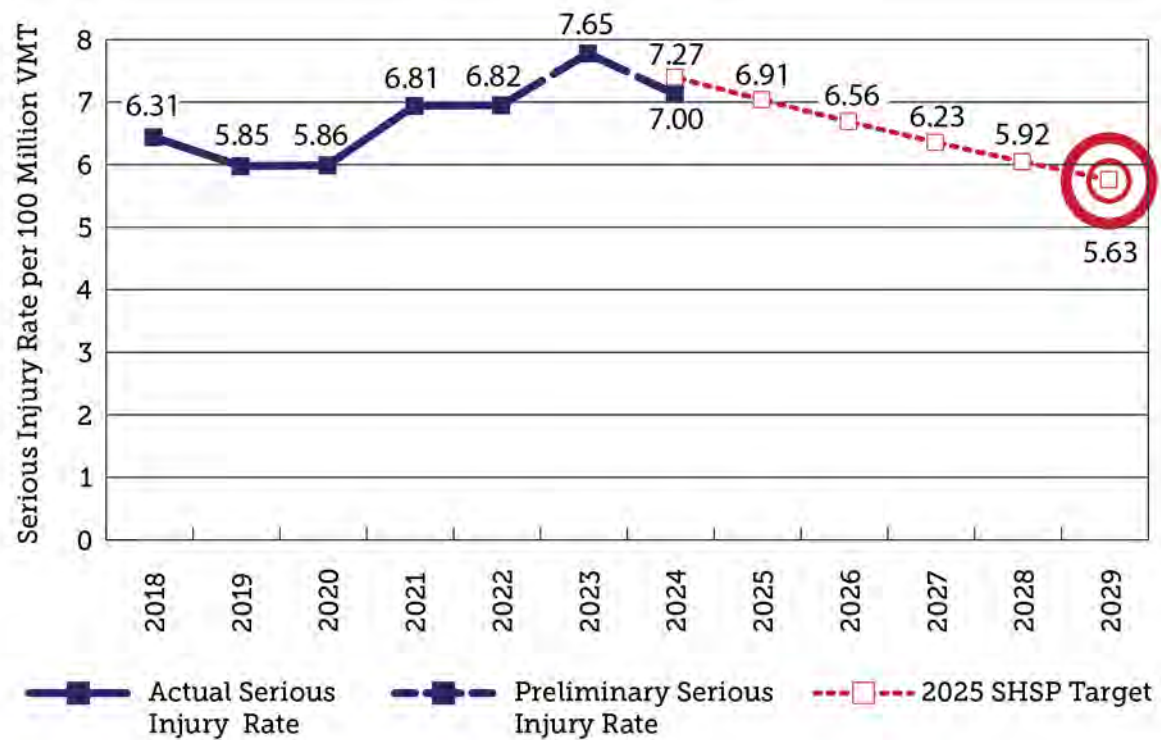


Figure 10-8: Serious Injury Rate Performance Measure Goal

Note: 2023 VMT Miles not finalized, projected .06% growth rate used.

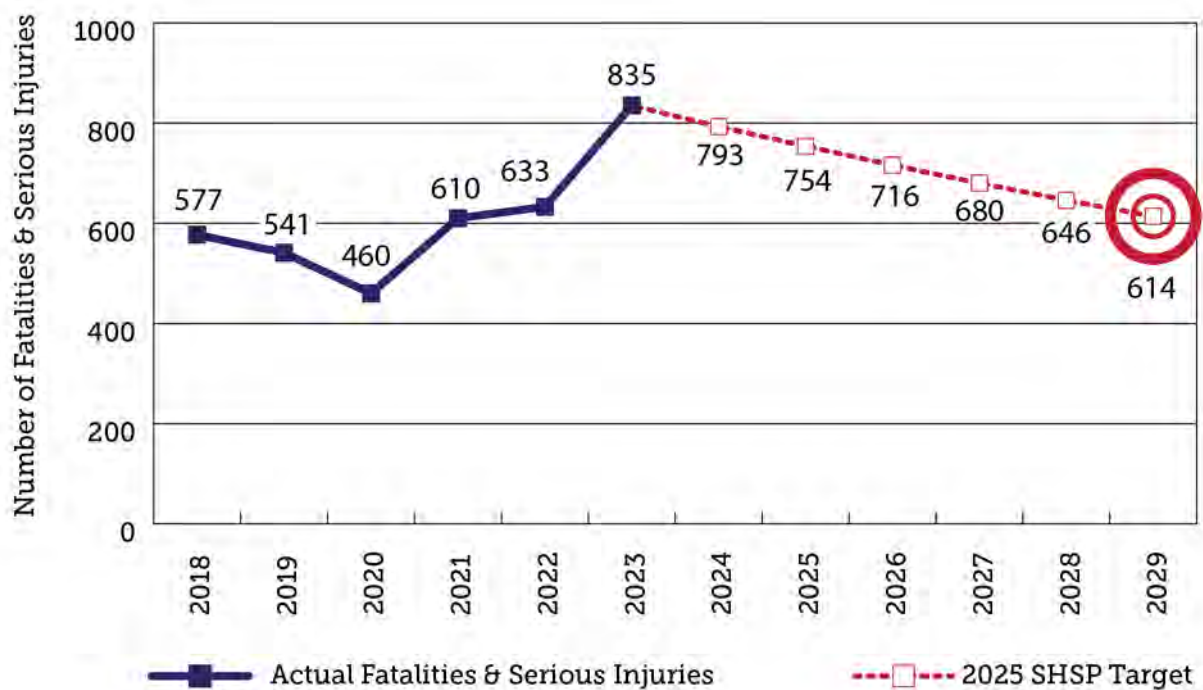


Figure 10-9: Pedestrian and Bicyclist Fatalities and Serious Injuries Performance Measure Goal

## Alignment with Other Performance Measures (WIGs, PD-14, HSP)

Several statewide plans align with the SHSP, reinforcing shared transportation safety goals.

- » Wildly Important Goals (WIGs): The Governor of Colorado requires all state departments to establish WIGs. Colorado's WIG for transportation safety aims to reduce traffic fatalities and serious injuries by 22.5% from 2023 to 2027. The WIGs are more aggressive and follow a shorter timeline to coincide with the Governor's term. In contrast, the SHSP has a longer term vision, extending through 2029.
- » Policy Directive 14.0 (PD-14): PD-14 establishes the framework for developing and implementing Colorado's 2050 Statewide Transportation Plan and 10-year plan by establishing performance goals and targets to help guide strategic transportation investments, advance transportation safety, fix our roads, and sustainably increase transportation choice.
- » Triennial Highway Safety Plan (3HSP): Developed by CDOT's Highway Safety Office, the 3HSP establishes hundreds of performance measures, many of which align with the SHSP. Ensuring consistency between the next major 3HSP update and the SHSP will help unify statewide safety goals.
- » Colorado Highway Safety Improvement Program (HSIP) Manual: Developed by CDOT's Traffic Safety Engineering Branch, the HSIP Manual identifies what HSIP is, how to apply for HSIP funds, and how projects will be prioritized to receive HSIP funding. Projects that apply for HSIP funding will be prioritized based on their alignments with the strategies identified in the SHSP and actions identified in the accompanying action plan. This plan and the HSIP Manual work hand in hand to assist agencies in applying for HSIP funds for projects that align with SHSP.





# 2025 SHSP Appendices



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Appendix E: Virtual Engagement

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# Appendix A

## Plan Alignment Exhibit

The complexity and long-term nature of the transportation system requires multiple short- and long-term plans. These plans address different areas such as metropolitan and rural regions along with different transportation modes, vehicle types like commercial trucks, and a range of safety concerns including both infrastructure and human behavior.

The development of the Strategic Highway Safety Plan (SHSP) included coordination with several other planning efforts at the state, federal, local and industry levels. Each of these plans were reviewed to assess alignment with high-level goals, performance measures, strategies, and objectives to identify and inform how these plans may contribute to the future implementation of SHSP. The matrix below outlines the alignment between these plans and the SHSP.

| Organization                                       | Plan                                           | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                    | Strategies (S)                                                                                                                                                 | Objectives (O)                                                                                                                                                                                                                                                                                               | Performance Measures (PM) |
|----------------------------------------------------|------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| South Central Transportation Planning Region (TPR) | <u>2045 Regional Transportation Plan (RTP)</u> | G,S,O            | Provide safe, reliable, cost-effective, and accessible multimodal transportation system that accommodates and enhances the region's high quality of life while preserving the environments that make Huerfano and Las Animas Counties great places to live, work, and visit. | Improve communication between the Colorado Department of Transportation (CDOT) and State Patrol related to roadway closures and incident management reporting. | Adding shoulders to major corridors, such as US 160, is one of the greatest safety needs in the region. Understanding crash patterns helps to identify appropriate safety improvements. For example, wild animal collisions can be mitigated with fencing along the roadway and/or a wildlife bridge/tunnel. |                           |
| South Central TPR                                  | 2045 RTP                                       | G,S,O            | Provide safe multimodal travel opportunities for residents and visitors.                                                                                                                                                                                                     | Improve communication among CDOT, cities, counties, and regional transit partners concerning planned transportation improvements.                              | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely.                                                                                   |                           |
| South Central TPR                                  | 2045 RTP                                       | G,S,O            | Function as a complete system with effective connectivity, both within the region and to the rest of the state.                                                                                                                                                              | Improve communication between CDOT and State Patrol related to roadway closures and incident management messaging.                                             | Addressing known safety problems is a top priority. These include geometrics, shoulder deficiencies, and road maintenance. Considerations need to include both data and driver perception/comfort.                                                                                                           |                           |

| Organization      | Plan            | Aligned Elements | Goals (G)                                                                                                                                                                                                            | Strategies (S)                                                                                                                                                    | Objectives (O)                                                                                                                                                                                                             | Performance Measures (PM) |
|-------------------|-----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| South Central TPR | 2045 RTP        | G,S,O            | Support interconnection with multimodal options and investments that support the multimodal system.                                                                                                                  | Expand transit service to maintain the quality of life for residents, particularly older residents who desire to age in place and continue to live in the region. |                                                                                                                                                                                                                            |                           |
| South Central TPR | 2045 RTP        | G,S,O            | Provide new intermodal access and mobility options for individuals and commerce.                                                                                                                                     |                                                                                                                                                                   |                                                                                                                                                                                                                            |                           |
| South Central TPR | 2045 RTP        | G,S,O            | Identify, evaluate, and prioritize options that enhance travel and can be implemented through existing or reasonably anticipated funding. Include options that are understood and supported by the traveling public. |                                                                                                                                                                   |                                                                                                                                                                                                                            |                           |
| South Central TPR | 2045 RTP        | G,S,O            | Provide efficient, effective, safe, and reliable services.                                                                                                                                                           |                                                                                                                                                                   |                                                                                                                                                                                                                            |                           |
| Southeast TPR     | <u>2045 RTP</u> | G,S,O            | Provide a safe, convenient, reliable, and efficient transportation network to support the region's multimodal needs.                                                                                                 | Address safety related issues including lack of shoulders and passing lanes.                                                                                      | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely. |                           |
| Southeast TPR     | 2045 RTP        | G,S,O            | Develop multimodal transportation options to improve mobility and support economic development.                                                                                                                      | Maintain roadways, including mowing operations, to mitigate roadway departures and wildlife crashes.                                                              | Safety in the Southeast TPR must consider how trucks and other vehicles work together on roadways and consider the population of aging adults.                                                                             |                           |

| Organization  | Plan     | Aligned Elements | Goals (G)                                                                                                                                                                                                                            | Strategies (S)                                                                                                                                                                                                                                                               | Objectives (O)                                                                                                                                                                                                                                                                                     | Performance Measures (PM) |
|---------------|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Southeast TPR | 2045 RTP | G,S,O            | Improve air, rail, intercity, bus, public transit, and bikeway facilities and services throughout the region, in addition to highways.                                                                                               | Increase coordination between CDOT and local governments throughout project development and delivery.                                                                                                                                                                        | Enhanced transit options facilitate the mobility of aging adults in a variety of weather conditions.                                                                                                                                                                                               |                           |
| Southeast TPR | 2045 RTP | G,S,O            | Support and advocate for the preservation, enhancement, and continued operation of the Southwest Chief passenger rail service through southern Colorado.                                                                             | Explore new funding opportunities.                                                                                                                                                                                                                                           | The addition of shoulders and widening of roadways accommodates trucks and enhances the safety for all road users.                                                                                                                                                                                 |                           |
| Southwest TPR | 2045 RTP | G,S,O            | Provide a balanced transportation system that accommodates the movements of residents, employees, visitors, and goods in the region by offering travel options and preserving the rural character, quality of life, and environment. | Continue building partnerships among the counties, cities, towns, and tribes within the Southwest TPR and the neighboring TPRs to coordinate on transportation issues, particularly the pursuit of creative and long-term funding solutions for the advancement of projects. | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely. People are more inclined to walk in places that feel safe and inviting. |                           |
| Southwest TPR | 2045 RTP | G,S,O            | Create a safe and accessible regionwide transportation system that integrates all users and modes and supports opportunities to better access recreational activities.                                                               | Work with the counties, cities, towns, and tribes of the Southwest TPR to continue to advance and redesign highways to enable safe access for all members of the community, including those walking, biking, and in need of greater assistance.                              | Safety is a top priority for this region. Addressing known safety problems, like wildlife conflict areas, is a top priority. Improving the safety of pedestrians and bicyclists, particularly in the downtown areas, is also a priority.                                                           |                           |



| Organization          | Plan            | Aligned Elements | Goals (G)                                                                                                                     | Strategies (S)                                                                                                                                                                                            | Objectives (O)                                                                                                                                                                                                             | Performance Measures (PM) |
|-----------------------|-----------------|------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Southwest TPR         | 2045 RTP        | G,S,O            | Maintain and cultivate partnerships with local, state, tribal, and federal entities to improve interagency coordination.      | Continue coordination between CDOT Region 5 and the Southwest TPR to select projects that best align with available funding, prioritizing lower cost projects that can be completed with available funds. |                                                                                                                                                                                                                            |                           |
| Upper Front Range TPR | <u>2045 RTP</u> | G,S,O            | Promote economic vitality and mobility for all residents through strategic investments in a multimodal transportation system. | Advocate for shoulder improvements as an effective safety measure, particularly when surface treatments are being done.                                                                                   | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely. |                           |
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Improve safety throughout the transportation system.                                                                          | Continue to advance regional rail crossing improvements through regular updates to the rail inventory and crossing replacement program.                                                                   |                                                                                                                                                                                                                            |                           |
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Provide a multimodal transportation system for the efficient movement of people and goods.                                    |                                                                                                                                                                                                           |                                                                                                                                                                                                                            |                           |
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Preserve the functional integrity of the existing transportation system and correct identified deficiencies.                  |                                                                                                                                                                                                           |                                                                                                                                                                                                                            |                           |
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Prioritize projects to anticipate and utilize all funding opportunities.                                                      |                                                                                                                                                                                                           |                                                                                                                                                                                                                            |                           |
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Deliver transportation system investments cost-effectively, incorporating life cycle costs.                                   |                                                                                                                                                                                                           |                                                                                                                                                                                                                            |                           |

| Organization          | Plan            | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                        | Strategies (S)                                                                                                                                                          | Objectives (O)                                                                                                                                                                                                             | Performance Measures (PM) |
|-----------------------|-----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Collaborate and communicate with other agencies to implement regional transportation priorities.                                                                                                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                                            |                           |
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Integrate transportation and land use planning throughout system design and implementation.                                                                                                                                                                      |                                                                                                                                                                         |                                                                                                                                                                                                                            |                           |
| Upper Front Range TPR | 2045 RTP        | G,S,O            | Coordinate projects with other entities within the region, including Rocky Mountain National Park, adjacent communities, TPRs, and states.                                                                                                                       |                                                                                                                                                                         |                                                                                                                                                                                                                            |                           |
| Northwest TPR         | <u>2045 RTP</u> | G,S,O            | Work together to establish and maintain a realistic, balanced multimodal transportation system that effectively addresses current and future needs while at the same time protecting the quality of life and the safety of residents and visitors in the region. | Work with CDOT Region 3 staff to assist in developing locations for safety improvements; these improvements include shoulders, resurfacing, signage, and intersections. | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely. |                           |
| Northwest TPR         | 2045 RTP        | G,S,O            | Adopt a unified vision and goals for the region.                                                                                                                                                                                                                 | Work with local law enforcement and CDOT Headquarters to ensure safety data congruence.                                                                                 |                                                                                                                                                                                                                            |                           |
| Northwest TPR         | 2045 RTP        | G,S,O            | Support a transportation system that meets present and future mobility and freight needs.                                                                                                                                                                        | Work with CDOT Region 3 staff to assist in developing potential improvement, or construction, of pedestrian crossings and rest stop areas.                              |                                                                                                                                                                                                                            |                           |
| Northwest TPR         | 2045 RTP        | G,S,O            | Support a transportation system that increases convenience and the quality of travel for residents.                                                                                                                                                              |                                                                                                                                                                         |                                                                                                                                                                                                                            |                           |

| Organization        | Plan            | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                                                                                                     | Strategies (S)                                                                                                                       | Objectives (O)                                                                                                                                                                                                                        | Performance Measures (PM) |
|---------------------|-----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Northwest TPR       | 2045 RTP        | G,S,O            | Provide a safe, efficient, and well-maintained roadway system.                                                                                                                                                                                                                                                                                                |                                                                                                                                      |                                                                                                                                                                                                                                       |                           |
| Northwest TPR       | 2045 RTP        | G,S,O            | Plan for a transportation system that facilitates and maximizes funding for the region.                                                                                                                                                                                                                                                                       |                                                                                                                                      |                                                                                                                                                                                                                                       |                           |
| Northwest TPR       | 2045 RTP        | G,S,O            | Support a transportation plan that develops options that are understood and supported by the traveling public.                                                                                                                                                                                                                                                |                                                                                                                                      |                                                                                                                                                                                                                                       |                           |
| San Luis Valley TPR | <u>2045 RTP</u> | G,S,O            | Create a sustainable, safe, and efficient transportation system that supports the region's agricultural and tourism-based economies through capacity and safety improvements, and expanded local and regional public transportation options. Accommodate and enhance the region's quality of life, while preserving the cultural and the natural environment. | Advocate for safety improvements with elected officials.                                                                             | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely.            |                           |
| San Luis Valley TPR | 2045 RTP        | G,S,O            | Provide for sustainable economic growth with supportive and efficient transportation infrastructure and programs.                                                                                                                                                                                                                                             | Improve communication between CDOT, cities, counties, and regional transit partners concerning planned transportation improvements.  | Addressing known safety problems is a top priority. These include the importance of intersections, passing lanes, shoulders, and wildlife crashes. Considerations include data, level of service, speed limit, and driver perception. |                           |
| San Luis Valley TPR | 2045 RTP        | G,S,O            | Improve transportation linkages and modal alternatives for commerce, tourism, and transportation-dependent populations.                                                                                                                                                                                                                                       | Consider roadway designs to encourage slower speeds through towns, and cities to support walkability, safety, and economic vitality. |                                                                                                                                                                                                                                       |                           |

| Organization        | Plan     | Aligned Elements | Goals (G)                                                                                                                                                                      | Strategies (S) | Objectives (O) | Performance Measures (PM) |
|---------------------|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------------|
| San Luis Valley TPR | 2045 RTP | G,S,O            | Improve the safety of the transportation system.                                                                                                                               |                |                |                           |
| San Luis Valley TPR | 2045 RTP | G,S,O            | Identify, evaluate, and prioritize transportation development options that enhance travel and can be implemented through existing or reasonably anticipated funding.           |                |                |                           |
| San Luis Valley TPR | 2045 RTP | G,S,O            | Improve and increase bicycle and pedestrian facilities.                                                                                                                        |                |                |                           |
| San Luis Valley TPR | 2045 RTP | G,S,O            | Increase passenger and freight rail opportunities.                                                                                                                             |                |                |                           |
| San Luis Valley TPR | 2045 RTP | G,S,O            | Improve safety for bicyclists and pedestrians in business centers.                                                                                                             |                |                |                           |
| San Luis Valley TPR | 2045 RTP | G,S,O            | Increase transit connectivity through enhanced intercity and demand response services that support the region's diverse population.                                            |                |                |                           |
| San Luis Valley TPR | 2045 RTP | G,S,O            | Ensure the transit system contributes to the economic vitality of the region by providing options and minimizing transportation costs for residents, businesses, and visitors. |                |                |                           |
| San Luis Valley TPR | 2045 RTP | G,S,O            | Support the needs of the region's diverse population by providing access to basic and critical services such as medical, employment, educational, and recreational services.   |                |                |                           |



| Organization            | Plan            | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                                         | Strategies (S)                                                                                                               | Objectives (O)                                                                                                                                                                                                                                                                                                                                                            | Performance Measures (PM) |
|-------------------------|-----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| San Luis Valley TPR     | 2045 RTP        | G,S,O            | Seek funding opportunities to maintain existing services and expand the transit network.                                                                                                                                                                                                          |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                           |                           |
| San Luis Valley TPR     | 2045 RTP        | G,S,O            | Expand mobility options to ensure access within the region and to other Colorado regions and New Mexico.                                                                                                                                                                                          |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                           |                           |
| Central Front Range TPR | <u>2045 RTP</u> | G,S,O            | Accommodate the region's rapidly growing multimodal transportation needs through a combination of capacity improvements in congested corridors, safety and traffic management improvements elsewhere on the transportation system, and the provision of local and regional public transportation. | Increase communication between CDOT and regional partners to better manage impacts of roadway closures and detours.          | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely.                                                                                                                                                |                           |
| Central Front Range TPR | 2045 RTP        | G,S,O            | Provide mobility to the traveling public at a good level of service that is well maintained in the most efficient manner possible.                                                                                                                                                                | Improve communication between CDOT and rural regions about project funding availability and support application development. | Addressing known safety problems, such as roadway departures, wildlife collisions, and congestion related crashes is a top priority for the region. Other important safety considerations include shoulder improvements, passing lanes, main street crosswalks, improved communication, and the creation of alternate routes for the winter season and natural disasters. |                           |

| Organization            | Plan            | Aligned Elements | Goals (G)                                                                                                                                                                   | Strategies (S)                                                                                                                      | Objectives (O)                                                                                                                                                                                                             | Performance Measures (PM) |
|-------------------------|-----------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Central Front Range TPR | 2045 RTP        | G,S,O            | Provide safer travel opportunities.                                                                                                                                         | Focus on multimodal main street projects to improve safety, support local economies, and attract tourists.                          |                                                                                                                                                                                                                            |                           |
| Central Front Range TPR | 2045 RTP        | G,S,O            | Ensure that the transportation system functions as a complete system that provides alternate routes to accommodate emergency evacuations and the increased traffic demands. |                                                                                                                                     |                                                                                                                                                                                                                            |                           |
| Central Front Range TPR | 2045 RTP        | G,S,O            | Provide new and improved intermodal access for commerce and transit connections between towns for individuals.                                                              |                                                                                                                                     |                                                                                                                                                                                                                            |                           |
| Central Front Range TPR | 2045 RTP        | G,S,O            | Maximize investment through strategic partnerships and pursuit of alternative funding sources.                                                                              |                                                                                                                                     |                                                                                                                                                                                                                            |                           |
| Eastern TPR             | <u>2045 RTP</u> | G,S,O            | Enhance the unique character and quality of life found in northeast and east central Colorado by providing an efficient, safe, and accessible transportation network.       | Improve communication between CDOT, cities, counties, and regional transit partners concerning planned transportation improvements. | State highways serve as "Main Street". These highway sections require additional considerations and should be designed so that people walking, parking, bicycling, accessing transit, and driving can all interact safely. |                           |

| Organization | Plan     | Aligned Elements | Goals (G)                                                                                                                                                    | Strategies (S)                                                                                                                                       | Objectives (O)                                                                                                                                                                                                                                                                                                      | Performance Measures (PM) |
|--------------|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Eastern TPR  | 2045 RTP | G,S,O            | Implement strategies to improve safety for all modes of transportation, such as the addition of shoulders, turn lanes, and adequate winter road maintenance. | Improve communication between CDOT and State Patrol related to roadway closures and incident management messaging.                                   | Safety in the Eastern TPR must consider how trucks and other vehicles work together on roadways and consider the population of aging adults. The addition of shoulders, turning lanes, passing lanes, appropriate signage, and widening of roadways accommodates trucks and enhances the safety for all road users. |                           |
| Eastern TPR  | 2045 RTP | G,S,O            | Improve pavement conditions on interstates and state highways for more efficient farm-to-market movement of goods.                                           | Expand maintenance operations, including snow plowing efforts during adverse weather conditions, for emergency vehicle and transit service mobility. |                                                                                                                                                                                                                                                                                                                     |                           |
| Eastern TPR  | 2045 RTP | G,S,O            | Encourage proper routing for hazardous materials and oversized vehicles.                                                                                     |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                     |                           |
| Eastern TPR  | 2045 RTP | G,S,O            | Continue to seek increased funding for improving highway, air, rail, and transit systems and services.                                                       |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                     |                           |
| Eastern TPR  | 2045 RTP | G,S,O            | Provide transit service for the transit-dependent population within the region.                                                                              |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                     |                           |
| Eastern TPR  | 2045 RTP | G,S,O            | Enhance air freight and passenger service for the region.                                                                                                    |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                     |                           |

| Organization        | Plan            | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                                              | Strategies (S)                                                                                                                                                                              | Objectives (O)                                                                                                                                                                                                         | Performance Measures (PM) |
|---------------------|-----------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Gunnison Valley TPR | <u>2045 RTP</u> | G,S,O            | Accommodate the region's existing and future multimodal transportation needs by maintaining a safe, convenient, reliable, and efficient transportation network that supports the economic growth of the region by providing transportation choice for residents, visitors, and tourists of the region. | Continue high-quality communication among CDOT, cities, counties, and regional transit partners concerning planned transportation improvements.                                             | State highways serve as "Main Streets". These highway sections require additional considerations and should be designed so people walking, parking, bicycling, accessing transit, and driving can all interact safely. |                           |
| Gunnison Valley TPR | 2045 RTP        | G,S,O            | Provide mobility to the traveling public at an acceptable level of service.                                                                                                                                                                                                                            | Create an educational campaign focused on passing lane and pull-off usage especially in high tourist areas could inform residents and visitors about driving safely in the Gunnison Valley. | Addressing known safety problems (including roadway departures, wildlife accidents, and congestion-related crashes) is a top priority.                                                                                 |                           |
| Gunnison Valley TPR | 2045 RTP        | G,S,O            | Provide new integrated intermodal access and mobility options with particular emphasis on developing new bike and transit travel options.                                                                                                                                                              |                                                                                                                                                                                             |                                                                                                                                                                                                                        |                           |
| Gunnison Valley TPR | 2045 RTP        | G,S,O            | Preserve, maintain, and enhance existing transit services.                                                                                                                                                                                                                                             |                                                                                                                                                                                             |                                                                                                                                                                                                                        |                           |
| Gunnison Valley TPR | 2045 RTP        | G,S,O            | Improve and promote transportation options.                                                                                                                                                                                                                                                            |                                                                                                                                                                                             |                                                                                                                                                                                                                        |                           |
| Gunnison Valley TPR | 2045 RTP        | G,S,O            | Integrate general public and human transit services.                                                                                                                                                                                                                                                   |                                                                                                                                                                                             |                                                                                                                                                                                                                        |                           |
| Gunnison Valley TPR | 2045 RTP        | G,S,O            | Support the transportation system to function as a complete system with effective connectivity both within the region and to the rest of the state.                                                                                                                                                    |                                                                                                                                                                                             |                                                                                                                                                                                                                        |                           |



| Organization        | Plan            | Aligned Elements | Goals (G)                                                                                                                                                                          | Strategies (S)                                                                                                                                                                                                                                                                                     | Objectives (O)                                                                                                                                                                                                                               | Performance Measures (PM) |
|---------------------|-----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Gunnison Valley TPR | 2045 RTP        | G,S,O            | Leverage the existing transportation network to support emergency response efforts.                                                                                                |                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                              |                           |
| Intermountain TPR   | <u>2045 RTP</u> | G,S,O            | Promote preservation of the unique character of each community through open-space buffering, while providing economic, cultural, environmental, and outdoor recreational benefits. | Advocate for local safety improvements, such as rumble strips, skid-resistant surfaces, guardrails and barriers, intersection safety improvements, signs at pedestrian/bicycle crossing/school crossings, and auxiliary lanes.                                                                     | The Intermountain TPR must consider extreme weather, mountainous terrain, freight movement, tourists, and commuters when making safety improvements.                                                                                         |                           |
| Intermountain TPR   | 2045 RTP        | G,S,O            | Develop a 10-year strategic pipeline of projects, inclusive of all modes, informed both by a data-driven needs assessment and public and stakeholder input.                        | Work with CDOT and local jurisdictions to incorporate bike lanes on existing roadways where shoulders are already wide enough to meet the American Association of State Highway and Transportation Officials (AASHTO) standards and include those bike lanes on CDOT's bicycle facilities mapping. | Safety in the Intermountain TPR must consider how weather, wildlife, and people relate to roadways. Lower speeds, roundabouts, and complete streets designs improve safety conditions for vulnerable road users and main street communities. |                           |
| Intermountain TPR   | 2045 RTP        | G,S,O            | Enhance coordination between land use and multimodal transportation planning.                                                                                                      | Enhance safety for roadway users including residents, tourists, and freight with Intelligent Transportation Systems (ITS) to notify drivers of weather, incidents, and roadway closures.                                                                                                           |                                                                                                                                                                                                                                              |                           |
| Intermountain TPR   | 2045 RTP        | G,S,O            | Address existing and future needs/inadequacies on the transportation network.                                                                                                      | Create safer traveling conditions in the region by adding shoulders, improving pavement conditions, and implementing fencing or tunnels for wildlife.                                                                                                                                              |                                                                                                                                                                                                                                              |                           |

| Organization                                                                            | Plan                              | Aligned Elements | Goals (G)                                                                                                                                   | Strategies (S)                                              | Objectives (O)                        | Performance Measures (PM) |
|-----------------------------------------------------------------------------------------|-----------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------|---------------------------|
| Intermountain TPR                                                                       | 2045 RTP                          | G,S,O            | Integrate multimodal options into all planning and funding decisions.                                                                       |                                                             |                                       |                           |
| Intermountain TPR                                                                       | 2045 RTP                          | G,S,O            | Provide maximum flexibility for use of funds.                                                                                               |                                                             |                                       |                           |
| Intermountain TPR                                                                       | 2045 RTP                          | G,S,O            | Identify and apply for all potential funding sources.                                                                                       |                                                             |                                       |                           |
| Intermountain TPR                                                                       | 2045 RTP                          | G,S,O            | Provide travel options to attainable/accessible housing, medical, and overall community services.                                           |                                                             |                                       |                           |
| Intermountain TPR                                                                       | 2045 RTP                          | G,S,O            | Provide equity of funding for services.                                                                                                     |                                                             |                                       |                           |
| Intermountain TPR                                                                       | 2045 RTP                          | G,S,O            | Recognize diverse needs of transportation users.                                                                                            |                                                             |                                       |                           |
| Intermountain TPR                                                                       | 2045 RTP                          | G,S,O            | Engage in an open and comprehensive public involvement process to prioritize and implement projects that meet the region's needs and goals. |                                                             |                                       |                           |
| Denver Regional Council of Governments (DRCOG) Metropolitan Planning Organization (MPO) | <u>DRCOG Regional Vision Zero</u> | G,S,O,PM         | Implement safety projects that reduce roadway-related fatalities and serious injuries to ultimately reach zero.                             | Improve collaboration between allied agencies.              | Implement Complete Streets.           | Zero fatalities by 2040.  |
| DRCOG MPO                                                                               | DRCOG Regional Vision Zero        | G,S,O,PM         |                                                                                                                                             | Increase awareness and adoption of vision zero.             | Establish context-appropriate speeds. |                           |
| DRCOG MPO                                                                               | DRCOG Regional Vision Zero        | G,S,O,PM         |                                                                                                                                             | Design and retrofit roadways to prioritize people's safety. | Equity.                               |                           |

| Organization | Plan                       | Aligned Elements | Goals (G)                                                                                                       | Strategies (S)                                                                                                                     | Objectives (O)                                                   | Performance Measures (PM) |
|--------------|----------------------------|------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------|
| DRCOG MPO    | DRCOG Regional Vision Zero | G,S,O,PM         |                                                                                                                 | Improve data collection and reporting.                                                                                             |                                                                  |                           |
| DRCOG MPO    | DRCOG Regional Vision Zero | G,S,O,PM         |                                                                                                                 | Increase funding and resources.                                                                                                    |                                                                  |                           |
| DRCOG MPO    | DRCOG Regional Vision Zero | G,S,O,PM         |                                                                                                                 | Increase support for legislation, policies, and practices that focus on safety at all levels.                                      |                                                                  |                           |
| DRCOG MPO    | DRCOG Regional Vision Zero | G,S,O,PM         |                                                                                                                 | Implement speed reduction strategies.                                                                                              |                                                                  |                           |
| DRCOG MPO    | DRCOG Regional Vision Zero | G,S,O,PM         |                                                                                                                 | Equity strategies.                                                                                                                 |                                                                  |                           |
| DRCOG MPO    | 2050 Metro Vision RTP      | G,S,O,PM         | Implement safety projects that reduce roadway-related fatalities and serious injuries to ultimately reach zero. | Reference the DRCOG regional Vision Zero strategies.                                                                               | The transportation system is safe, reliable and well-maintained. | Zero fatalities by 2040.  |
| DRCOG MPO    | 2050 Metro Vision RTP      | G,S,O,PM         |                                                                                                                 | Partner with local law enforcement agencies and advocacy groups on education and enforcement activities related to all road users. |                                                                  |                           |
| DRCOG MPO    | 2050 Metro Vision RTP      | G,S,O,PM         |                                                                                                                 | Monitor and maintain crash and traffic safety data for all transportation modes.                                                   |                                                                  |                           |
| DRCOG MPO    | 2050 Metro Vision RTP      | G,S,O,PM         |                                                                                                                 | Develop and implement access management principles along major streets.                                                            |                                                                  |                           |
| DRCOG MPO    | 2050 Metro Vision RTP      | G,S,O,PM         |                                                                                                                 | Enforce traffic laws and ordinances as they apply to all users of the transportation system.                                       |                                                                  |                           |

| Organization | Plan                                                               | Aligned Elements | Goals (G)                                                                                       | Strategies (S)                                                                                                                                                                                                 | Objectives (O)                                                                                                                                                                                     | Performance Measures (PM)                                    |
|--------------|--------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| DRCOG MPO    | 2050 Metro Vision RTP                                              | G,S,O,PM         |                                                                                                 | Implement projects that reduce the likelihood and severity of crashes involving motor vehicles, freight and passenger trains, buses, bicycles, and pedestrians.                                                |                                                                                                                                                                                                    |                                                              |
| Pueblo MPO   | <u>Moves the Region 2045 Long Range Transportation Plan (LRTP)</u> | G,S,O,PM         | Achieve a significant reduction in traffic fatalities and serious injuries on all public roads. | Preserve the existing transportation systems to ensure safe, convenient, and efficient transportation.                                                                                                         | The objective of achieving zero deaths on roadways within the Pueblo Area Council of Governments (PACOG) will be accomplished by adhering to the philosophy put forth by the Vision Zero movement. | Zero fatalities by 2030.                                     |
| Pueblo MPO   | Moves the Region 2045 LRTP                                         | G,S,O,PM         | Maintain the highway infrastructure asset system in a state of good repair.                     | Maintain the performance of the Colorado state transportation system at a high level to ensure the safety of all users, including transportation operators, passengers, shippers, bicyclists, and pedestrians. |                                                                                                                                                                                                    | Zero serious injuries by 2030.                               |
| Pueblo MPO   | Moves the Region 2045 LRTP                                         | G,S,O,PM         |                                                                                                 | Continue to improve system safety by instituting and supporting safety programs to attain Vision Zero status with respect to fatalities and life-altering injuries.                                            |                                                                                                                                                                                                    | Reduce the injury and PDO crash rates by 25 percent by 2040. |
| Pueblo MPO   | Moves the Region 2045 LRTP                                         | G,S,O,PM         |                                                                                                 | Promote the identification of specific emphasis areas to improve transportation safety through a statewide evaluation of safety problems and multi-disciplinary stakeholder input.                             |                                                                                                                                                                                                    |                                                              |



| Organization | Plan                        | Aligned Elements | Goals (G) | Strategies (S)                                                                                                                                                                                                                                                      | Objectives (O) | Performance Measures (PM) |
|--------------|-----------------------------|------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| Pueblo MPO   | Moves the Region 2045 L RTP | G,S,O,PM         |           | Continue to develop comprehensive, coordinated, and communicative safety strategies that focus on engineering, education, enforcement, and emergency medical services for all emphasis areas.                                                                       |                |                           |
| Pueblo MPO   | Moves the Region 2045 L RTP | G,S,O,PM         |           | Promote the development of improved and new transportation system designs, engineering, and operating technologies to increase system safety.                                                                                                                       |                |                           |
| Pueblo MPO   | Moves the Region 2045 L RTP | G,S,O,PM         |           | Promote safe and convenient travel facilities for at-risk users.                                                                                                                                                                                                    |                |                           |
| Pueblo MPO   | Moves the Region 2045 L RTP | G,S,O,PM         |           | Provide a continuing program of public information and education to promote safety awareness and the implementation of safety practices.                                                                                                                            |                |                           |
| Pueblo MPO   | Moves the Region 2045 L RTP | G,S,O,PM         |           | Cooperate with other agencies to ensure prompt response to crashes on the transportation system and timely resolution of threats to human and environmental health and safety, such as hazardous waste sites, encountered when improving transportation facilities. |                |                           |

| Organization   | Plan      | Aligned Elements | Goals (G)                                                                                                                                                                                                                                       | Strategies (S)                                                                                                                                                                                                     | Objectives (O)                                                                                                                                                                                                                                | Performance Measures (PM)                                     |
|----------------|-----------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         | Preserve and enhance the function of and access to the existing regional transportation system.                                                                                                                                                 | Complete the regional and local safety action plans funded by recently awarded Safe Streets and Roads for All (SS4A) grants. Compete for discretionary funds to help implement the recommendations of those plans. | Develop a sustainable multimodal transportation system, facilities, and services that meet regional mobility and accessibility expectations, improve the quality of life in the Pikes Peak region, and plan for the future of transportation. | Number of fatalities.                                         |
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         | Provide efficient, improved, and fully connected multimodal and intermodal transportation for people, goods, information, technology, and freight to employment hubs, military installations, and other key destinations throughout the region. | Increase collaboration with available state and federal resources, and consider using grant funding for increased education or enforcement to offset lack of local funding sources.                                |                                                                                                                                                                                                                                               | Fatality rate (per 100 million vehicle miles traveled [VMT]). |
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         | Increase the safety, security, redundancy, and resiliency of the multimodal transportation system.                                                                                                                                              | Build on successful law enforcement practices, and establish laws/policies that have bearing/are enforceable.                                                                                                      |                                                                                                                                                                                                                                               | Number of serious injuries.                                   |
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         | Maintain a robust, equitable, and healthy regional transportation system that enhances economic vitality of the Pikes Peak region.                                                                                                              | Leverage traffic safety education programs such as Drive Smart Colorado, and coordinate efforts with the Drive Smart Traffic Safety Coalition.                                                                     |                                                                                                                                                                                                                                               | Serious injury rate (per 100 million VMT).                    |
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         | Implement responsible transportation solutions.                                                                                                                                                                                                 | Continue conducting safety media campaigns targeted to the region and its issues to ensure effectiveness.                                                                                                          |                                                                                                                                                                                                                                               | Number of non-motorized fatalities and serious injuries.      |

| Organization   | Plan      | Aligned Elements | Goals (G) | Strategies (S)                                                                                                                                                                                                                                                     | Objectives (O) | Performance Measures (PM) |
|----------------|-----------|------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         |           | Implement engineering and infrastructure improvements such as minimizing speed differential; making roads seem "narrower" with striping to encourage drivers to slow down; enlarging road signs; or installing adaptive signal systems or radar detection systems. |                |                           |
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         |           | Improve pedestrian engineering, safer cross walks, especially at intersections with high crashes. This may include adding pedestrian bump outs or adding advanced flashing beacons before the intersection to inform drivers that pedestrians are crossing.        |                |                           |
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         |           | Identify areas where speeding or other types of dangerous driving is common.                                                                                                                                                                                       |                |                           |
| Pikes Peak MPO | 2050 LRTP | G,S,O,PM         |           | Implement effective access management techniques such as limiting the number of conflict points, adding turn lanes, and using connecting parking lots and access roads to minimize inefficient travel on primary roadways.                                         |                |                           |

| Organization     | Plan     | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                              | Strategies (S)                                                                                                                                                                              | Objectives (O)                                                                                                                                                                    | Performance Measures (PM)                  |
|------------------|----------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Grand Valley MPO | 2045 RTP | G,S,O,PM         | Create well-maintained roadways that are safe and accessible for people walking, biking, driving and taking transit, and leverage partnerships and reliable funding sources for enhancing multimodal travel for users of all ages and abilities.                                       | Compile and geocode crash data from state, county, and local agencies including attributes such as cause of crash, and mode of parties involved.                                            | Identify locations that pose the highest crash risk for people walking, people biking, and people driving and prioritize multimodal countermeasure treatments at these locations. | Number of fatalities.                      |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         | Foster active transportation by providing a regionally connected network of low-stress facilities that are safe for people walking and people biking.                                                                                                                                  | Map all crash locations by mode and identify a high injury network—the network of segments and corridors with a high concentration of crashes resulting in fatalities and serious injuries. | Implement a regional roadway safety program that uses engineering, educational, and enforcement countermeasures to improve safety outcomes in high-crash rate locations.          | Fatality rate (per 100 million VMT).       |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         | Ensure driving in the Grand Valley is more efficient, safer, and comfortable.                                                                                                                                                                                                          | Using national best practices, identify safety countermeasures (both engineering and programmatic) that could improve safety outcomes at high crash locations.                              | Conduct a regional Level of Traffic Stress assessment for active transportation facilities to determine specific locations for improving bicycle and pedestrian safety.           | Number of serious injuries.                |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         | Make the multimodal regional transportation system safer for all users by using proven methods for lowering crash rates, ensuring roadways are in good repair, increasing personal safety, and providing low-stress facilities for people walking, biking, driving, or taking transit. | Identify regional safety stakeholders from state, county, and local agencies to form a working group on improving safety outcomes.                                                          | Adopt a regional Vision Zero program, by working with peer programs such as the DRCOG Vision Zero effort.                                                                         | Serious injury rate (per 100 million VMT). |



| Organization     | Plan     | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                                                 | Strategies (S)                                                                                                                                                                                                                                                                    | Objectives (O)                                                                                                                                         | Performance Measures (PM)                                |
|------------------|----------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Grand Valley MPO | 2045 RTP | G,S,O,PM         | Provide a transportation system, operating parameters, and policy-framework that support the safe, efficient, and reliable movement of goods within, to and from the Grand Valley; and, identify programs and strategies to support the economic viability of freight-dependent industries in the region. | Designate partners from stakeholder groups to implement appropriate countermeasures in high-crash locations.                                                                                                                                                                      | Encourage active modes of transportation by using national best practices and safety standards for bicycle and pedestrian infrastructure improvements. | Number of non-motorized fatalities and serious injuries. |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         | Bring roadways, sidewalks, and multiuse paths to a state of good repair.                                                                                                                                                                                                                                  | Use stakeholder groups as a vehicle for submitting grant applications.                                                                                                                                                                                                            |                                                                                                                                                        |                                                          |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |                                                                                                                                                                                                                                                                                                           | Compile geospatial data associated with the street centerline file including street classification, width, number of travel lanes, and speed limits to form a regional geographic information system (GIS) datafile for Mesa County roadways.                                     |                                                                                                                                                        |                                                          |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |                                                                                                                                                                                                                                                                                                           | Inventory all existing active transportation facilities for Mesa County, to include widths of sidewalks and bicycle lanes, type of facility (attached vs. detached sidewalks, striped vs. protected bicycle lanes), and quality of crossing facilities and create a GIS datafile. |                                                                                                                                                        |                                                          |

| Organization     | Plan     | Aligned Elements | Goals (G) | Strategies (S)                                                                                                                                                                                                                                                                                                                   | Objectives (O) | Performance Measures (PM) |
|------------------|----------|------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |           | Analyze data files comparatively and apply the Level of Traffic Stress methodology (Mekuria, Furth, Nixon, 2012) to identify where existing active transportation facilities are considered high stress due to high posted speed limits, pedestrian facilities immediately adjacent to traffic, bicycle facilities present, etc. |                |                           |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |           | Establish contact with a representative from the DRCOG Vision Zero program and hold a teleconference to gain high-level insight into the process of starting a regional safety program.                                                                                                                                          |                |                           |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |           | Invite members of stakeholder committee to participate in regional Vision Zero effort.                                                                                                                                                                                                                                           |                |                           |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |           | Select a target date for beginning Vision Zero program.                                                                                                                                                                                                                                                                          |                |                           |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |           | Draft a Vision Zero policy and bring policy forward to the elected boards and councils of member municipalities and Mesa County for adoption.                                                                                                                                                                                    |                |                           |
| Grand Valley MPO | 2045 RTP | G,S,O,PM         |           | Invite a national expert on Complete Streets to meet with regional safety stakeholder group.                                                                                                                                                                                                                                     |                |                           |

| Organization          | Plan                                            | Aligned Elements | Goals (G)                                                                                                                                                                                | Strategies (S)                                                                                                                                                                           | Objectives (O)                                                                                          | Performance Measures (PM)                                                                                                                                                                              |
|-----------------------|-------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grand Valley MPO      | 2045 RTP                                        | G,S,O,PM         |                                                                                                                                                                                          | Recruit a regional champion for active transportation facility design who evaluates new bicycle and pedestrian infrastructure projects to ensure the designs incorporate best practices. |                                                                                                         |                                                                                                                                                                                                        |
| Grand Valley MPO      | 2045 RTP                                        | G,S,O,PM         |                                                                                                                                                                                          | Develop a public awareness program on areas of the Grand Valley that currently support safe travel on active modes through quality infrastructure.                                       |                                                                                                         |                                                                                                                                                                                                        |
| North Front Range MPO | <u>2050 RTP</u>                                 | G,S,O,PM         | Create a safer multimodal transportation system in northern Colorado that is socially and environmentally sensitive, and strengthens the region's quality of life and economic vitality. | Include references to Safety Vision, Moving Toward Zero, and the Strategic Transportation Safety Plan (STSP).                                                                            | Follow a Safe System Approach to reduce the number of roadway-related fatalities and serious injuries.  | Targets for number of fatalities, fatality rate per 100 million VMT, number of serious injuries, serious injury rate per 100 million VMT, and number of non-motorized fatalities and serious injuries. |
| North Front Range MPO | <u>Safety Vision, Moving Toward Zero Deaths</u> | G,S,O,PM         | Set more aspirational goals regarding road safety and that there is no acceptable number of deaths and serious injuries on the road network.                                             | Continue to prioritize safety in future calls for projects.                                                                                                                              | Following a Safe System Approach, reduce the number of roadway related fatalities and serious injuries. | No deaths or serious injuries.                                                                                                                                                                         |

| Organization          | Plan                                     | Aligned Elements | Goals (G)                                                                                                                                                 | Strategies (S)                                                                                                                        | Objectives (O)                                                                                          | Performance Measures (PM)                                                                                                                                                                              |
|-----------------------|------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| North Front Range MPO | Safety Vision, Moving Toward Zero Deaths | G,S,O,PM         |                                                                                                                                                           | Analyze all available crash data to make more informed decisions for safety related projects.                                         |                                                                                                         |                                                                                                                                                                                                        |
| North Front Range MPO | Safety Vision, Moving Toward Zero Deaths | G,S,O,PM         |                                                                                                                                                           | Integrate the Towards Zero Deaths framework in future planning initiatives.                                                           |                                                                                                         |                                                                                                                                                                                                        |
| North Front Range MPO | Safety Vision, Moving Toward Zero Deaths | G,S,O,PM         |                                                                                                                                                           | Provide regionally-specific crash data to compare to statewide crash data when possible.                                              |                                                                                                         |                                                                                                                                                                                                        |
| North Front Range MPO | Safety Vision, Moving Toward Zero Deaths | G,S,O,PM         |                                                                                                                                                           | Identify and characteristics which are most prevalent in the region as well as best practices to mitigate those specific crash types. |                                                                                                         |                                                                                                                                                                                                        |
| CDOT                  | <u>2020-2023 STSP</u>                    | G,S,O,PM         | Create a future in Colorado where all people using any form of transportation arrive safely at their destination and no deaths or serious injuries occur. | Include Tier I, II and III strategies.                                                                                                | Following a Safe System Approach, reduce the number of roadway-related fatalities and serious injuries. | Targets for number of fatalities, fatality rate per 100 million VMT, number of serious injuries, serious injury rate per 100 million VMT, and number of non-motorized fatalities and serious injuries. |



| Organization | Plan                                                                                  | Aligned Elements | Goals (G)                                                          | Strategies (S)                                                                                                                                                                                                                                       | Objectives (O)                                                                                          | Performance Measures (PM)                                                                                                                                                                              |
|--------------|---------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CDOT         | <u>2023 Vulnerable Road User (VRU) Safety Assessment and the Safe System Approach</u> | G,S,O,PM         | Address safety issues for people who walk and bicycle in Colorado. | Enter bicycle and pedestrian crashes into the Pedestrian and Bicyclist Crash Analysis Tool (PBCAT) to better understand contributing factors and movements for non-motorized crashes and more accurately match a countermeasure to the safety issue. | Following a Safe System Approach, reduce the number of roadway-related fatalities and serious injuries. | Targets for number of fatalities, fatality rate per 100 million VMT, number of serious injuries, serious injury rate per 100 million VMT, and number of non-motorized fatalities and serious injuries. |
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach                               | G,S,O,PM         |                                                                    | Examine existing crash reporting data elements to see if there is available information that aligns more with PBCAT entry fields; if not, consider adding data elements for crash reporting form update.                                             |                                                                                                         |                                                                                                                                                                                                        |
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach                               | G,S,O,PM         |                                                                    | Collect VRU counts in advance of Road Safety Audits (RSAs) and corridor studies to assess true level of risk for these roadways.                                                                                                                     |                                                                                                         |                                                                                                                                                                                                        |
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach                               | G,S,O,PM         |                                                                    | Implement a large-scale bicycle count program or purchase "big data" VRU exposure and origin/destination data.                                                                                                                                       |                                                                                                         |                                                                                                                                                                                                        |

| Organization | Plan                                                    | Aligned Elements | Goals (G) | Strategies (S)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Objectives (O) | Performance Measures (PM) |
|--------------|---------------------------------------------------------|------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach | G,S,O,PM         |           | Establish an RSA process for the state of Colorado's highway and roadway system.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                           |
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach | G,S,O,PM         |           | Build on CDOT Region 1 and 4 Bicycle and Pedestrian Safety Assessments as a systematic method of complying with the federal VRU Safety Assessment Requirement.                                                                                                                                                                                                                                                                                                                                                                             |                |                           |
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach | G,S,O,PM         |           | Continue demographic analysis and specific outreach for Colorado Disproportionately Impacted Communities (DIC) and communities with a EnviroScreen score above the 80th percentile (ES80). Include a screening process for DIC and ES80 communities in the project development process. Consider DIC and ES80 communities during all project development stages. Give funding priority to roadway safety projects located in DIC and ES80 communities. Create and facilitate community engagement to fit the DIC and ES80 community needs. |                |                           |

| Organization | Plan                                                    | Aligned Elements | Goals (G) | Strategies (S)                                                                                                                                                                                                                                                                                                                                                                           | Objectives (O) | Performance Measures (PM) |
|--------------|---------------------------------------------------------|------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach | G,S,O,PM         |           | Continue to evaluate implemented safety projects using before-and-after studies. Offer support to local agencies to perform before-and-after studies. Compile statewide database to build a Colorado-specific list of countermeasures that work throughout the state.                                                                                                                    |                |                           |
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach | G,S,O,PM         |           | Bring VRU safety educational opportunities - such as the FHWA trainings on bicycle and pedestrian design, Complete Streets, and the Safe System Approach - to Colorado. Ensure that jurisdictional personnel are provided adequate time and support to attend. Invite consultants to participate and give preference in procurement processes to consultants who attend these trainings. |                |                           |

| Organization | Plan                                                    | Aligned Elements | Goals (G) | Strategies (S)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Objectives (O) | Performance Measures (PM) |
|--------------|---------------------------------------------------------|------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach | G,S,O,PM         |           | Update and maintain the existing inventory of active transportation facilities on the state highway system. Survey local jurisdictions and document which ones maintain inventories of active transportation facilities on their local roadway system, and assist local jurisdictions who do not already do so. Create and update an inventory of active transportation facilities on their local roadway system. Consolidate state system inventory with local jurisdiction inventories on a GIS-based website with either jurisdictional or public access. |                |                           |
| CDOT         | 2023 VRU Safety Assessment and the Safe System Approach | G,S,O,PM         |           | Pending clarification from FHWA, use all-severity crashes to establish a high-injury network to the extent possible, incorporate exposure data into the analysis. If all-severity crashes can be used, perform a pair-wise analysis to determine correlations between first harmful event and land use or infrastructure/roadway features. Create a proactive risk-assessment tool to anticipate locations that have a high risk of crashes, regardless of crash history.                                                                                    |                |                           |



| Organization | Plan                                   | Aligned Elements | Goals (G)                                                                                                                                                 | Strategies (S)                                                                                                                                                                                                                                                                                                                                                                                                                                           | Objectives (O)                                                                                                                                                                                                                           | Performance Measures (PM)                   |
|--------------|----------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| CDOT         | <u>Your Transportation Plan (2045)</u> | G,S,O,PM         | Create a future in Colorado where all people using any form of transportation arrive safely at their destination and no deaths or serious injuries occur. | Refer to the STSP, freight plan, etc. for specific strategies.                                                                                                                                                                                                                                                                                                                                                                                           | Prevent fatalities and serious injuries by funding and installing physical infrastructure increasing safer travel. Conduct community outreach and active public involvement in the prevention and management of crashes.                 | References PD-14.                           |
| CDOT         | <u>10-year Vision Plan</u>             | G,S,O,PM         | Create a future in Colorado where all people using any form of transportation arrive safely at their destination and no deaths or serious injuries occur. | Use an additional \$25 million in federal Highway Safety Improvement Program (HSIP) funding provided by the Infrastructure Investment and Jobs Act (IIJA) to further support safety elements within the plan. This additional HSIP money will be added to existing 10-Year projects to fund qualifying safety elements of those projects (such as median barriers, centerline /shoulder rumble strips, dedicated turn lanes, adding/widening shoulders). | Listen to Coloradans about their transportation system needs and prioritize taxpayers dollars to best deliver on those needs. Energize an ongoing statewide conversation about the vitality of transportation in connecting daily trips. | Project delivery performance is summarized. |

| Organization         | Plan                                                         | Aligned Elements | Goals (G)                                                                                                                                                                                                                       | Strategies (S)                                    | Objectives (O)                                                                                                                              | Performance Measures (PM)                                                                                                                                                                                                                                                         |
|----------------------|--------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CDOT                 | <u>Policy Directive 14</u>                                   | G,O,PM           | No matter where you're going or how you're getting there, Colorado is committed to providing you a safe and efficient transportation network so you arrive at your destination safely.                                          |                                                   | Targeted, safety-focused investments. Address LOSS III/IV locations, meaning locations with high or moderate potential for crash reduction. | PD 14 aligns with goals and concepts from the Department's Wildly Important Goals (WIGs), Transportation Commission Guiding Principles, Governor's "Key Priorities", and federal performance objectives required under the Infrastructure Investment and Jobs Act (IIJA) of 2021. |
| CDOT                 | <u>Policy Directive 1601</u>                                 | N/A*             | N/A                                                                                                                                                                                                                             | N/A                                               | N/A                                                                                                                                         | N/A                                                                                                                                                                                                                                                                               |
| CDOT                 | <u>Statewide Transportation Demand Management (TDM) Plan</u> | G,S,O            | Enhance the quality of life and the environment of the citizens of Colorado by creating an integrated transportation system that focuses on safely moving people and goods by offering convenient linkages among modal choices. | Implement Core, Support, and Emerging strategies. | To provide the best multi-modal transportation system for Colorado that most effectively and safely moves people, goods, and information.   |                                                                                                                                                                                                                                                                                   |
| Smart Growth America | Complete Streets Policy Framework Model                      | O                |                                                                                                                                                                                                                                 |                                                   | Outlines necessary components of an effective Complete Streets policy for any municipality or state.                                        |                                                                                                                                                                                                                                                                                   |

\*N/A - Plan was reviewed and is Not Applicable.

| Organization | Plan                                                    | Aligned Elements | Goals (G)                                                                         | Strategies (S)                                                                           | Objectives (O)                                                                                                                                                 | Performance Measures (PM) |
|--------------|---------------------------------------------------------|------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| CDOT         | Safe Routes to School - School District Policy Workbook | O                |                                                                                   |                                                                                          | Provides guidance on developing a district-wide Safe Routes to School (SRTS) policy.                                                                           |                           |
| CDOT         | Climate and Economic Justice Screening Tool             | N/A              | N/A                                                                               | N/A                                                                                      | N/A                                                                                                                                                            | N/A                       |
| CDOT         | Bus Rapid Transit (BRT) Best Practice Model             | N/A              | N/A                                                                               | N/A                                                                                      | N/A                                                                                                                                                            | N/A                       |
| CDOT         | Region 1 Bicycle/ Pedestrian Safety Plan                | G,S,O            | Identify 10 top locations on CDOT roads to improve bicycle and pedestrian safety. | Identify specific safety countermeasures for each high-risk location listed in the plan. | The study is intended to be a tool to help municipal staff, elected officials, and community stakeholders improve bicycle and pedestrian safety on CDOT roads. |                           |
| CDOT         | Region 4 Bicycle/ Pedestrian Safety Plan                | G,S,O            | Identify 10 top locations on CDOT roads to improve bicycle and pedestrian safety. | Identify specific safety countermeasures for each high-risk location listed in the plan. | The study is intended to be a tool to help municipal staff, elected officials, and community stakeholders improve bicycle and pedestrian safety on CDOT roads. |                           |

| Organization | Plan                                                      | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                                                                                                                                               | Strategies (S)                                                          | Objectives (O)                                                                                                                                                                                                                 | Performance Measures (PM)                                                                                               |
|--------------|-----------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| CDOT         | Statewide Bicycle and Pedestrian Plan                     | G,S,O            | Improve safety for pedestrians and bicyclists users and the application of engineering approaches to improve non-motorized safety, particularly at intersections and mid-block locations. Improving safe operating behaviors among motorists, bicyclists, and pedestrians through education and enforcement activities is also identified as well as the importance of providing transportation equity. | Improve safety for bicyclists and pedestrians.                          | The plan provides a foundation for CDOT and their regional and local planning partners to prioritize bicycle and pedestrian projects and programs for funding and implementation.                                              |                                                                                                                         |
| CDOT         | Colorado HSIP Plan (Fiscal Year [FY] 2024-2027)           | G,S,O            | Reduce traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands.                                                                                                                                                                                                                                                                   | Includes a variety of safety improvement strategies.                    | The program provides federal funds (90% federal, 10% state/local) for infrastructure projects that improve highway safety at locations where there is potential for crash reduction.                                           |                                                                                                                         |
| CDOT         | <u>Active Transportation Plan</u>                         | G,S,O,PM         | Currently in development.                                                                                                                                                                                                                                                                                                                                                                               | Currently in development.                                               | Currently in development.                                                                                                                                                                                                      | Currently in development.                                                                                               |
| CDOT         | <u>Colorado Triennial Highway Safety Plan (3HSP) 2023</u> | G,S,O,PM         | Includes the state's goals, objectives, and countermeasure strategies for improving traffic safety, as well as performance measures to evaluate progress.                                                                                                                                                                                                                                               | Includes many behavioral strategies that are also included in the SHSP. | It outlines priority highway safety projects and respective funding for a three-year period, FYs 2024-2026, and reports on progress towards meeting the performance measures identified in the FY23 Highway Safety Plan (HSP). | Includes 17 performance measures including number of fatalities, number of serious injuries, and fatality rate per VMT. |



| Organization | Plan                                                                                                                 | Aligned Elements | Goals (G)                                                                                                                       | Strategies (S)                                                                                                                                                                                                                                       | Objectives (O)                                                                                                                                                                              | Performance Measures (PM)                                          |
|--------------|----------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| CDOT         | Colorado HSIP 2022 Annual Report                                                                                     | N/A              | N/A                                                                                                                             | N/A                                                                                                                                                                                                                                                  | N/A                                                                                                                                                                                         | N/A                                                                |
| CDOT         | FASTER Safety Mitigation Program Plan List                                                                           | N/A              | N/A                                                                                                                             | N/A                                                                                                                                                                                                                                                  | N/A                                                                                                                                                                                         | N/A                                                                |
| CDOT         | Colorado's Funding Advancements for Surface Transportation and Economic Recovery Act of 2009 (FASTER) Safety Program | G,S,O            | Reduce traffic fatalities and serious injuries.                                                                                 | Varies                                                                                                                                                                                                                                               | The Funding Advancement for Surface Transportation and Economic Recovery (FASTER) provides needed funds to address safety issues on Colorado roadways.                                      |                                                                    |
| CDOT         | <u>Colorado Freight Plan (CFP)</u>                                                                                   | G,S,O,PM         | Support the economic vitality of the state by providing for the safe, efficient, coordinated, and reliable movement of freight. | Prioritize identified commercial vehicle safety hotspots and other locations with specific safety challenges for funding within National Highway Freight Program (NHFP) project selection.                                                           | The updated CFP guides improvements and investments on the freight systems and supports Colorado's vision of a safe, efficient, coordinated, and reliable system for the movement of goods. | Recognizes and aligns with PD14 and Wildly Important Goals (WIGs). |
| CDOT         | CFP                                                                                                                  | G,S,O,PM         |                                                                                                                                 | Evaluate where and what enhancements are needed, and establish a secure funding source, to improvements and maintenance of chain stations, runaway truck ramps, safety pull-outs, and other highway freight network operational and safety features. |                                                                                                                                                                                             |                                                                    |

| Organization | Plan                                                            | Aligned Elements | Goals (G)                                                                                                                                                                                                            | Strategies (S)                                                                                                                                                                       | Objectives (O)                                                                                                                                                                                                                                                                                                                                            | Performance Measures (PM)   |
|--------------|-----------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| CDOT         | CFP                                                             | G,S,O,PM         |                                                                                                                                                                                                                      | Streamline delivery of the Railway-Highway Crossings (Section 130) Program, including project prioritization and risk assessments for future projects.                               |                                                                                                                                                                                                                                                                                                                                                           |                             |
| CDOT         | CFP                                                             | G,S,O,PM         |                                                                                                                                                                                                                      | Enhance internal data and analytical capabilities to identify and assess commercial vehicle safety hotspots and integrate needs into regional and state project selection processes. |                                                                                                                                                                                                                                                                                                                                                           |                             |
| CDOT         | <u>Motorcycle Operator Safety Training (MOST) Annual Report</u> | G,S,O,PM         | Provide a safe motorcycling program that supports motorcycle training and lifelong learning, along with motorcycle safety awareness to achieve reductions in motorcycle crashes and related injuries and fatalities. | Include a variety of strategies to improve rider safety and awareness.                                                                                                               | Provide guidance and oversight to ensure all MOST students receive consistent, high-quality motorcycle rider instruction and are taught by well-trained, ethical instructors in an atmosphere that promotes student success and endorses lifelong learning, personal growth and responsible riding, as well as promoting motorcycle safety and awareness. | Number of students trained. |
| CDOT         | <u>2050 Statewide Transit Plan</u>                              | G,S,O,PM         | Create a resilient transit network that makes travelers feel safe and secure.                                                                                                                                        | Enhance local and regional transit.                                                                                                                                                  | The Statewide Transit Plan establishes a framework for creating an integrated statewide transit system and prioritizes transit investment.                                                                                                                                                                                                                | Aligns with PD14.           |
| CDOT         | 2050 Statewide Transit Plan                                     | G,S,O,PM         |                                                                                                                                                                                                                      | Provide multimodal hubs and connections.                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                           |                             |
| CDOT         | 2050 Statewide Transit Plan                                     | G,S,O,PM         |                                                                                                                                                                                                                      | Expand the bicycle and pedestrian network.                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                           |                             |

| Organization                                                 | Plan                                         | Aligned Elements | Goals (G)                                                                                                                                                                                                                   | Strategies (S)                                                                                                                                                                    | Objectives (O)                                                                                                                                                                                                                                                                                                                                                                                         | Performance Measures (PM) |
|--------------------------------------------------------------|----------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| CDOT                                                         | <u>State Passenger Freight and Rail Plan</u> | G,S,O            | Build a robust and safe rail network for passengers and freight that is an integral element of Colorado's multimodal transportation system and supports access to sustainable mobility for all people, goods, and services. | Coordinate with partners to identify and fund safety, security, and crossing needs.                                                                                               | Ensure that Colorado's rail systems are SAFE and SECURE. EXPAND and IMPROVE Colorado's rail systems for passengers and freight. Provide users and travelers with greater MOBILITY and CONNECTIVITY options. PRESERVE and MAINTAIN critical corridors and infrastructure to support Colorado's rail systems. Advance ECONOMIC VITALITY and ENVIRONMENTAL QUALITY of Colorado's communities and regions. |                           |
| CDOT                                                         | State Passenger Freight and Rail Plan        | G,S,O            |                                                                                                                                                                                                                             | Support and participate in joint efforts to improve safety and security.                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                        |                           |
| CDOT                                                         | State Passenger Freight and Rail Plan        | G,S,O            |                                                                                                                                                                                                                             | Identify potential projects that address rail-related infrastructure constraints or rail access, safety and connectivity improvements.                                            |                                                                                                                                                                                                                                                                                                                                                                                                        |                           |
| CDOT                                                         | Equity Plan                                  | G,S,O,PM         | Prohibit discrimination on the basis of race, color, national origin, age, sex, or disability in any CDOT program or activity.                                                                                              | Implement equity programs, small business certifications, and civil rights compliance requirements for engineers, contractors, consultants, local agencies, and transit agencies. | To promote equal access to and participation in CDOT programs and activities.                                                                                                                                                                                                                                                                                                                          | Varies.                   |
| Colorado Department of Public Health and Environment (CDPHE) | CDPHE EnviroScreen                           | N/A              | N/A                                                                                                                                                                                                                         | N/A                                                                                                                                                                               | N/A                                                                                                                                                                                                                                                                                                                                                                                                    | N/A                       |

| Organization                                           | Plan                                                                                                                                                                             | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                    | Strategies (S)                                                                             | Objectives (O)                                                                                                            | Performance Measures (PM)                |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| National Highway Traffic Safety Administration (NHTSA) | Traffic Safety Fact 2021 State Traffic Data                                                                                                                                      | N/A              | N/A                                                                                                                                                                                                                                                          | N/A                                                                                        | N/A                                                                                                                       | N/A                                      |
| CMCA                                                   | <a href="#"><u>Colorado Commercial Vehicle Safety Plan (eCVSP) for the Federal Motor Carrier Safety Administration's Motor Carrier Safety Assistance Program (2021-2023)</u></a> | G,S,O,PM         | The Motor Carrier Safety Assistance Program (MCSAP) is a federal grant program that provides financial assistance to states to help reduce the number and severity of accidents and hazardous materials incidents involving commercial motor vehicles (CMV). | Outlines inspection and other strategies to improve commercial vehicle safety in Colorado. | The online CVSP tool (eCVSP) outlines the state's CMV safety objectives, strategies, activities and performance measures. | Provides crash reduction goals for CMVs. |
| Varies                                                 | Local Agency's SS4A plans                                                                                                                                                        | G,S,O,PM         | Commit to a vision zero goal (eliminate or reduce) serious injuries and fatalities by a specific date.                                                                                                                                                       | Varies.                                                                                    | Following a Safe System Approach, reduce the number of roadway-related fatalities and serious injuries.                   | Varies.                                  |
| Varies                                                 | Local Agency's Vision Zero Plans                                                                                                                                                 | G,S,O,PM         | Commit to a vision zero goal (eliminate or reduce) serious injuries and fatalities by a specific date.                                                                                                                                                       | Varies.                                                                                    | Following a Safe System Approach, reduce the number of roadway related fatalities and serious injuries.                   | Varies.                                  |



| Organization          | Plan                                                                                      | Aligned Elements | Goals (G)                                                                                                                                                                                                | Strategies (S)                                                                                                                                          | Objectives (O)                                                                                                                                                                                                                                   | Performance Measures (PM)                                                                                                                                              |
|-----------------------|-------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| US DOT                | The United States Department of Transportation (US DOT) Transportation Equity Action Plan | G,S,O,PM         | The USDOT is working to ensure that everyone receives the benefits that transportation brings and are not left out or made to shoulder disproportionate burdens caused by transportation infrastructure. | Provide direct, hands on technical support for transportation projects with local impact.                                                               | DOT is working to make a system that meets the Department's mission to deliver the world's leading transportation system, serving the American people and the economy through the safe, efficient, and sustainable movement of people and goods. | Increase safe, affordable, multimodal access to key destinations, including: work, education, grocery stores, health care, affordable housing, and recreation.         |
| Colorado State Patrol | Colorado State Patrol 2022-2026 Strategic Plan                                            | G,S,O,PM         | Provide modern policing services for all persons to protect life, peace, and property throughout Colorado.                                                                                               | Boost partnerships with other divisions in the Colorado Department of Public Safety and with CDOT to advance safety services in Colorado's communities. | To create a safer Colorado through strategic innovation led by an engaged and empowered membership that provides visible service.                                                                                                                | Eliminate 7% of CSP Investigated Fatal Crashes from 282 to 262 by December 31, 2024.                                                                                   |
| Colorado State Patrol | Colorado State Patrol 2022-2026 Strategic Plan                                            | G,S,O,PM         |                                                                                                                                                                                                          |                                                                                                                                                         |                                                                                                                                                                                                                                                  | Reduce by 8% the number of fatal crashes caused by the top 3 fatal driver actions (lane violations, careless driving, and speed) from 125 to 115 by December 31, 2024. |

| Organization          | Plan                                                                     | Aligned Elements | Goals (G)                                                                                                                                                                               | Strategies (S)                                                                                                                      | Objectives (O)                                                                                                                                                                                                                                                                                | Performance Measures (PM)                                                                                  |
|-----------------------|--------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Colorado State Patrol | Colorado State Patrol 2022-2026 Strategic Plan                           | G,S,O,PM         |                                                                                                                                                                                         |                                                                                                                                     |                                                                                                                                                                                                                                                                                               | Reduce by 12% the number of DUI/D fatal crashes from 83 to 73 by December 31, 2024.                        |
| Colorado State Patrol | Colorado State Patrol 2022-2026 Strategic Plan                           | G,S,O,PM         |                                                                                                                                                                                         |                                                                                                                                     |                                                                                                                                                                                                                                                                                               | Achieve effective visibility in 20% of work hours within your area of responsibility by December 31, 2024. |
| State of Colorado     | <u>Colorado Task Force on Drunk and Impaired Driving - Annual Report</u> | G,S,O            | Support the prevention, awareness, enforcement, and treatment of drunk and impaired driving in Colorado through strong partnerships with public, private, and non-profit organizations. | Conduct a comprehensive paid media campaign focused on cannabis-impaired driving awareness and the consequences associated with it. | The task force shall meet regularly to investigate methods of reducing the incidents of drunk and impaired driving and develop recommendations for the state of Colorado regarding the enhancement of government services, education, and intervention to prevent drunk and impaired driving. |                                                                                                            |
| State of Colorado     | Colorado Task Force on Drunk and Impaired Driving - Annual Report        | G,S,O,PM         |                                                                                                                                                                                         | Make plea negotiations to a lesser offense part of the record and count as a prior impaired driving offense.                        |                                                                                                                                                                                                                                                                                               |                                                                                                            |
| State of Colorado     | Colorado Task Force on Drunk and Impaired Driving - Annual Report        | G,S,O,PM         |                                                                                                                                                                                         | Conduct at least two Drug Recognition Expert schools each year.                                                                     |                                                                                                                                                                                                                                                                                               |                                                                                                            |

| Organization      | Plan                                                                                    | Aligned Elements | Goals (G) | Strategies (S)                                                                                                                                                                                     | Objectives (O) | Performance Measures (PM) |
|-------------------|-----------------------------------------------------------------------------------------|------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| State of Colorado | Colorado Task Force on Drunk and Impaired Driving - Annual Report                       | G,S,O,PM         |           | Review current research to determine the validity of having a delta 9 tetrahydrocannabinol permissible inference limit in a driver's blood.                                                        |                |                           |
| State of Colorado | Colorado Task Force on Drunk and Impaired Driving - Annual Report                       | G,S,O,PM         |           | Make the penalties for refusal of blood alcohol concentration (BAC) test at least as strict as a positive BAC test, making it a criminal offense, not just a civil offense.                        |                |                           |
| State of Colorado | Colorado Task Force on Drunk and Impaired Driving - Annual Report                       | G,S,O,PM         |           | Develop a monitoring plan to include more frequent on-site monitoring to ensure that state funds are being used to have the biggest impact on reducing the impaired driving problems in the state. |                |                           |
| Other             | Colorado Teen Driving Alliance Improving Motor Vehicle Safety - Action Plan Report Card | N/A              | N/A       | N/A                                                                                                                                                                                                | N/A            | N/A                       |

| Organization      | Plan                                                | Aligned Elements | Goals (G)                                                                                                                                                                            | Strategies (S)                                                                       | Objectives (O)                                                                                                                                                                                                                                                          | Performance Measures (PM)                                                                      |
|-------------------|-----------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| State of Colorado | <u>Standing Committee on First Responder Safety</u> | G,S,O,PM         | Grow partnerships among responders and with the public. Reduce human exposure to active traffic. Reduce incident impact. Improve Traffic Incident Management (TIM) program delivery. | Support local TIM team establishment and growth.                                     | Eliminate first responder casualties and secondary crashes; deliver plain language inter-operable communications; improve traffic flow and safety for all travelers and responders on Colorado roadways; support Colorado's economy by reducing incident related delay. | Conduct after action reviews.                                                                  |
| State of Colorado | Standing Committee on First Responder Safety        | G,S,O,PM         |                                                                                                                                                                                      | Provide and promote topical training resources.                                      |                                                                                                                                                                                                                                                                         | Number of training materials published.                                                        |
| State of Colorado | Standing Committee on First Responder Safety        | G,S,O,PM         |                                                                                                                                                                                      | Conduct regular training exercises.                                                  |                                                                                                                                                                                                                                                                         | Host multi-disciplinary responder courses and develop additional curriculum for TIM track use. |
| State of Colorado | Standing Committee on First Responder Safety        | G,S,O,PM         |                                                                                                                                                                                      | Assess TIM team capability and create continuing improvement plan for each TIM team. |                                                                                                                                                                                                                                                                         | Demonstrated improvement through TIM self-assessment.                                          |



| Organization      | Plan                                                                        | Aligned Elements | Goals (G)                                                                                                                                                                                                                                                                                                        | Strategies (S)                                                                                                          | Objectives (O)                                                                     | Performance Measures (PM)                                                                                 |
|-------------------|-----------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| State of Colorado | Standing Committee on First Responder Safety                                | G,S,O,PM         |                                                                                                                                                                                                                                                                                                                  | Conduct coordinated public education campaigns on responder safety topics.                                              |                                                                                    | Execute coordinated "move over" campaign and at least one more responder safety campaign.                 |
| State of Colorado | Standing Committee on First Responder Safety                                | G,S,O,PM         |                                                                                                                                                                                                                                                                                                                  | Design a stand up committee with focus on bringing disciplines together and building training into every TIM system.    |                                                                                    | Implementation plan including immediately actionable, future recommendations and budget and funding plan. |
| State of Colorado | State of Colorado Traffic Records Advisory Committee (STRAC) Strategic Plan | G,S,O,PM         | Provide a traffic records data system, which delivers complete, timely and accurate data, incorporating data from available sources, for use by eligible data consumers in traffic safety planning, process development, and decision making to eliminate transportation system fatalities and serious injuries. | Implement strategies for Crash, Citation/Adjudication, Vehicle, Driver, Injury Surveillance, Roadway, and Data systems. | Increase participation and collaboration in traffic records initiatives statewide. | Performance targets for individual data improvement initiatives are provided.                             |

| Organization      | Plan                 | Aligned Elements | Goals (G) | Strategies (S) | Objectives (O)                                                                                                           | Performance Measures (PM) |
|-------------------|----------------------|------------------|-----------|----------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------|
| State of Colorado | STRAC Strategic Plan | G,S,O,PM         |           |                | Reduce barriers in electronic data transfer, data quality, linkage, and integration processes.                           |                           |
| State of Colorado | STRAC Strategic Plan | G,S,O,PM         |           |                | Improve traffic records data for use in decision making to reduce transportation system fatalities and serious injuries. |                           |




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# Appendix B

# Strategies Table

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The Strategic Highway Safety Plan (SHSP) serves as a comprehensive guide to saving lives on Colorado's roads. While it focuses on areas with the greatest potential to improve safety, the SHSP acknowledges that smaller efforts and related initiatives play an important role in reducing serious injuries and fatalities. The SHSP allows for flexibility as priorities change, especially when new programs, policies, or proven safety countermeasures emerge. Implementation is not limited to what's outlined in the SHSP and safety partners are encouraged to adopt and promote a range of strategies. The SHSP helps identify safety challenges at the regional level and provides a framework for using data to guide effective solutions. The tables below summarize SHSP strategies by Focus Area:

|  <b>Emphasis Area:<br/>Safety Culture</b> |       |                                                                                                                |                                                                                                                                                                                                                                                                                                                |                |
|----------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Focus Area                                                                                                                 | Label | Strategy                                                                                                       | Description                                                                                                                                                                                                                                                                                                    | Category       |
| Organizational Safety Culture                                                                                              | SC1   | Conduct organizational safety culture assessments.                                                             | Build traffic safety culture at the community level by growing traffic safety culture within influential organizations.                                                                                                                                                                                        | Safety Culture |
| Organizational Safety Culture                                                                                              | SC2   | Local agency support programs (Local Technical Assistance Program (LTAP) and Safety Circuit Rider).            | Continue to support the LTAP and Safety Circuit Rider in their efforts to assist local agencies.                                                                                                                                                                                                               | Safety Culture |
| Organizational Safety Culture                                                                                              | SC3   | Expand public engagement.                                                                                      | By providing training and technical assistance, build the capacity of organizations to successfully engage the public in two-way, productive conversations to grow shared understanding and responsibility.                                                                                                    | Safety Culture |
| Organizational Safety Culture                                                                                              | SC4   | Consider communities with below average safety outcomes when making transportation safety investment decisions | Increase investment in communities with below average safety outcomes to reduce safety disparities by increasing awareness of community transportation safety needs and providing support to local agencies and organizations.                                                                                 | Safety Culture |
| Organizational Safety Culture                                                                                              | SC5   | Enhance collaboration and information sharing among traffic safety professionals.                              | Continue annual Colorado Traffic Safety Summits to engage, educate, and inspire Colorado transportation professionals from a wide variety of organizations to be safety champions and advance traffic safety culture in their organizations and communities.                                                   | Safety Culture |
| Public Safety Culture                                                                                                      | SC6   | Pilot community-level safety culture partnerships.                                                             | Utilize community-level pilot projects to learn and demonstrate effective safety practices.                                                                                                                                                                                                                    | Safety Culture |
| Public Safety Culture                                                                                                      | SC7   | Educate through media campaigns.                                                                               | Create and distribute universal education using media campaigns and resources.                                                                                                                                                                                                                                 | Safety Culture |
| Public Safety Culture                                                                                                      | SC8   | Build capacity among the public.                                                                               | Expand on existing public engagement programming to build the capacity of the public to encourage two-way, productive conversations between everyday road users and government agencies by educating the public about ways to share concerns, transportation safety, and their role in growing a safer system. | Safety Culture |





## Emphasis Area: Safe Driving

| Focus Area          | Label | Strategy                                           | Description                                                                                                                                          | Category                 |
|---------------------|-------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Occupant Protection | SD1   | Promote proper use through media campaigns.        | Continue to develop traffic safety media campaigns to support proper use of seat belts, child seats, and helmets.                                    | High-Impact              |
| Occupant Protection | SD2   | Educate on primary seat belt law.                  | Support educational efforts related to the importance of a primary seat belt law.                                                                    | High-Impact              |
| Impairment          | SD3   | Provide polydrug impairment education.             | Educate the public on the impacts of polydrug use.                                                                                                   | High-Impact              |
| Impairment          | SD4   | Prioritize high-risk impaired driving corridors.   | Identify high-risk corridors overrepresented in the crash data to make data-driven decisions to combat impaired driving.                             | High-Impact              |
| Impairment          | SD5   | Continue high-visibility enforcement.              | Continue to deploy data-driven high visibility impaired driving enforcement activities to deter impaired driving-related crashes.                    | High-Impact              |
| Aggression          | SD6   | Deploy anti-aggressive driving campaigns.          | Develop anti-aggressive driving campaigns focused on populations overrepresented in the crash data.                                                  | Emerging and Monitoring  |
| Aggression          | SD7   | Prioritize high-risk aggressive driving corridors. | Identify high-risk corridors overrepresented in the crash data to make data-driven decisions to combat aggressive driving.                           | Emerging and Monitoring  |
| Speeding            | SD8   | Prioritize high-risk speeding locations.           | Identify high-speeding-risk corridors overrepresented in the crash data and evaluate overlap between speeding and other high-risk driving behaviors. | Emerging and Monitoring  |
| Speeding            | SD9   | Deploy speed safety camera systems.                | Use the results of a speed safety camera pilot program to make data-driven decisions on future installations.                                        | Emerging and Monitoring  |
| Distraction         | SD10  | Provide education on hands-free law.               | Continue to educate the public on the hands-free law effective January 1, 2025.                                                                      | Doubling Down on Success |
| Distraction         | SD11  | Enhance data collection.                           | Continue to enhance data collected related to distraction-involved crashes.                                                                          | Doubling Down on Success |



## Emphasis Area: Safe People

| Focus Area                    | Label | Strategy                                                           | Description                                                                                                                                                                                                                                     | Category                |
|-------------------------------|-------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Motorcyclists                 | SP1   | Expand motorcycle operator safety training.                        | Expand motorcycle operator safety training campaigns.                                                                                                                                                                                           | High-Impact             |
| Motorcyclists                 | SP2   | Increase public awareness of motorcycle safety.                    | Increase public awareness of motorcycle safety for all road users.                                                                                                                                                                              | High-Impact             |
| Motorcyclists                 | SP3   | Improve motorcycle licensing and endorsement.                      | Increase the proportion of active motorcycle riders who are legally endorsed to ride in Colorado.                                                                                                                                               | High-Impact             |
| Motorcyclists                 | SP4   | Increase helmet and other personal protective equipment (PPE) use. | Increase motorcyclist PPE use through education and enforcement.                                                                                                                                                                                | High-Impact             |
| Aging Drivers                 | SP5   | Improve visibility of traffic control devices.                     | Enhance road safety by widening striping and markings on high-traffic roads and increasing the visibility of traffic signs to support aging drivers.                                                                                            | Emerging and Monitoring |
| Aging Drivers and Pedestrians | SP6   | Improve sight distances.                                           | Improve intersection safety by providing proper intersection angles, intersection sight distance, and other design strategies that support aging drivers and pedestrians.                                                                       | Emerging and Monitoring |
| Aging Drivers and Pedestrians | SP7   | Expand community-based mobility options.                           | Establish and expand community-based mobility options such as bike-sharing, carpool programs, and on-demand shuttle services in underserved areas to improve transportation accessibility for those unable to drive or who choose not to drive. | Emerging and Monitoring |
| Aging Drivers                 | SP8   | Enhance and expand resources for aging drivers.                    | Strengthen programs for aging drivers by increasing the awareness, use, effectiveness, and quality of existing resources.                                                                                                                       | Emerging and Monitoring |
| Young Drivers                 | SP9   | Expand access to driver's education.                               | Expand access to driver's education programs, particularly in rural areas, through partnerships with schools, online platforms, and community organizations.                                                                                    | Emerging and Monitoring |
| Young Drivers                 | SP10  | Improve quality of driver's education.                             | Improve the quality of driver's education programs, including incorporating defensive driving, distracted driving awareness, and active transportation considerations into the curriculum.                                                      | Emerging and Monitoring |
| Pedestrians and Bicyclists    | SP11  | Prioritize pedestrian and bicycle crash types.                     | Apply the Pedestrian and Bicyclist Crash Analysis Tool (PBCAT) to enhance understanding of vulnerable road user (VRU) crashes.                                                                                                                  | Emerging and Monitoring |



## Emphasis Area: Safe People

| Focus Area                 | Label | Strategy                                                    | Description                                                                                                                                                        | Category                |
|----------------------------|-------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Pedestrians and Bicyclists | SP12  | Improve VRU exposure data.                                  | Improve exposure data to better understand areas at higher risk of vulnerable road user (VRU) crashes.                                                             | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP13  | Conduct Road Safety Audits (RSAs).                          | Conduct VRU-specific and/or expanded Road Safety Audits.                                                                                                           | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP14  | Perform regional pedestrian/bicyclist studies.              | Perform studies at the local and regional levels that focus on pedestrian and bicyclist safety.                                                                    | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP15  | Analyze VRU crash demographic data.                         | Continue to utilize demographic data to identify community-level risk factors that may be contributing to VRU crashes.                                             | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP16  | Conduct VRU before-and-after studies                        | Continue to evaluate implemented safety projects and identify the most successful project types.                                                                   | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP17  | Educate traffic safety professionals on VRU best practices. | Work to continually educate traffic safety professionals on new VRU concepts and design strategies.                                                                | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP18  | Inventory VRU infrastructure.                               | Update and maintain the existing inventory of active transportation facilities on the state highway system and owned or maintained by local jurisdictions.         | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP19  | Expand VRU data sources.                                    | Expand data sources in the VRU safety assessment to include all crash types to enable a proactive approach to VRU safety.                                          | Emerging and Monitoring |
| Pedestrians and Bicyclists | SP20  | Evaluate VRU priority locations.                            | Work to continually identify and address priority locations for VRU safety.                                                                                        | Emerging and Monitoring |
| Work Zones                 | SP21  | Create work zone safety committee.                          | Form a work zone safety committee to analyze available data, share lessons learned, and improve best practices.                                                    | Emerging and Monitoring |
| First Responders           | SP22  | Provide resources and support for first responders.         | Continue providing resources and technical support to strengthen the Colorado Standing Committee on First Responder's efforts in improving first responder safety. | Emerging and Monitoring |



## Emphasis Area: Safe Roads

| Focus Area       | Label | Strategy                                        | Description                                                                                                                                                                                                                                         | Category                 |
|------------------|-------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Lane Departures  | SR1   | Install traffic controls and safety barriers.   | Reduce fatal and serious injury crashes caused by lane departures by installing improved traffic control devices and safety barriers on high-risk road segments.                                                                                    | High-Impact              |
| Lane Departures  | SR2   | Improve roadway geometry.                       | Implement roadway geometric improvements to encourage or accommodate appropriate driving speeds, while providing a forgiving roadside condition that minimizes severe crashes along high-risk road segments.                                        | High-Impact              |
| Off-System       | SR3   | Provide local agency assistance.                | Provide detailed guidance to local agencies on how to apply for state and federal safety funding and improve outreach to enhance awareness and participation in the Safety Circuit Rider Program, the LTAP, and other relevant assistance programs. | High-Impact              |
| Off-System       | SR4   | Encourage community-specific plans.             | Encourage local agencies to create community-specific safety plans and actively participate in their development, ensuring alignment with the Strategic Highway Safety Plan (SHSP) goals.                                                           | High-Impact              |
| Intersections    | SR5   | Reduce intersection conflicts.                  | Implement design and operational improvements that reduce the number of conflicts at intersections, especially those experiencing a high number of severe broadside and approach-turn crashes (Aging Pedestrian Strategy).                          | High-Impact              |
| Intersections    | SR6   | Perform Intersection Control Evaluations (ICE). | Perform ICE prior to upgrading or constructing intersection improvements.                                                                                                                                                                           | High-Impact              |
| Intersections    | SR7   | Incorporate VRU designs.                        | Incorporate project design elements to improve safety for vulnerable roadway users where there is a high number of fatal/serious injury VRU crashes (Aging Pedestrian Strategy).                                                                    | High-Impact              |
| Intersections    | SR8   | Prioritize high-risk intersection locations.    | Improve safety at high-risk intersections by addressing design deficiencies such as inadequate lighting, insufficient sight distance, and substandard turning radii.                                                                                | High-Impact              |
| Intersections    | SR9   | Implement improved traffic controls.            | Implement improved traffic controls at intersections with a high frequency of broadside, approach turn, and rear-end fatal and serious injury crashes (Aging Drivers & Pedestrians Strategy).                                                       | High-Impact              |
| Speed Management | SR10  | Promote appropriate speeds.                     | Modify the transportation system to promote appropriate vehicle speeds at locations where higher speeds contribute to severe crashes.                                                                                                               | Doubling Down on Success |
| Speed Management | SR11  | Set safe and realistic speed limits.            | Set safe and realistic speed limits by considering contextual factors such as road function, land use, traffic volume, active transportation activity, crash history, environmental conditions, and road design.                                    | Doubling Down on Success |





## Emphasis Area: Post-Crash Care

| Focus Area | Label | Strategy                                                              | Description                                                                                                                         | Category                 |
|------------|-------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| TIM/EMS    | PC1   | Improve collection of post-crash care data.                           | Improve data collection, analysis, and dissemination procedures to allow for increased integration of data between safety partners. | Emerging and Monitoring  |
| TIM/EMS    | PC2   | Improve quality of care.                                              | Develop processes to improve quality of care for those involved in crashes from onset of crash through treatment.                   | Emerging and Monitoring  |
| TIM/EMS    | PC3   | Provide education on post-crash care best-practices.                  | Implement programs to educate practitioners and the public on best practices on post-crash care activities.                         | Doubling Down on Success |
| TIM/EMS    | PC4   | Enhance programs in light of differences in post-crash care outcomes. | Evaluate opportunities to improve post-crash care and determine opportunities to enhance programs and activities.                   | Emerging and Monitoring  |
| TIM/EMS    | PC5   | Support statewide traffic incident management (TIM) activities.       | Continue to support statewide TIM activities.                                                                                       | Doubling Down on Success |



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# Appendix C

# Data Sources

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A wide range of Colorado agencies collect, manage, and analyze data related to transportation, public health, emergency response, community engagement, and social and economic conditions. This data, combined with national sources like the Fatality Analysis Reporting System (FARS), the Fatality and Injury Reporting System Tool (FIRST), U.S. Census data, and information from the Emergency Responder Safety Institute (ERSI), helps build a full picture of transportation safety in Colorado.

The SHSP is grounded in a thorough analysis of crash data over time. This historical crash data is used to assess current safety performance and identify high-risk roadways and intersections. In addition, population trends and public health data help reveal broader factors that influence safety outcomes.

## Colorado Department of Health and Environment (CDPHE) Emergency Medical Services (EMS) and Trauma Data

<https://cdphe.colorado.gov/emergency-care/ems-and-trauma-data>

CDPHE oversees the state's EMS and trauma systems, focusing on data collection, quality improvement, and system enhancement. CDPHE mandates that all licensed ground and air ambulance agencies submit patient care data for every encounter, adhering to the National EMS Information System (NEMSIS) Version 3.4.0 standards. This data encompasses approximately 270 elements, including patient demographics, assessment findings, interventions, and outcomes.

CDPHE also oversees the Colorado Trauma Registry, which collects data from trauma centers across the state. This registry aids in monitoring patient outcomes, identifying trends, and guiding improvements in trauma care. Facilities are required to submit data in compliance with the NEMSIS standards, with specific data dictionaries provided for different trauma center levels.

This data source was used to analyze EMS data in order to identify key needs for strategies in the EMS focus area.

## CDPHE Healthy Kids Colorado High School Survey

<https://cdphe.colorado.gov/hkcs>

The Healthy Kids Colorado Survey is administered biennially by CDPHE in collaboration with various state and academic partners. The survey gathers voluntary responses from middle and high school students across Colorado providing valuable insights into the factors influencing their health behaviors and choices.

This survey was used to analyze the traffic safety culture of young drivers in Colorado. This helped to develop strategies in improving the safety culture around the state at a young age.

## Colorado Department of Local Affairs (DOLA) State Demography Office

<https://demography.dola.colorado.gov/>

Colorado's DOLA State Demography Office compiles and disseminates a comprehensive array of demographic data to support local planning, policy development, and community services across the state. This data encompasses population trends, housing statistics, economic indicators, and education metrics.

This data was utilized to identify population trends to analyze crash data on a per capita basis. Additionally, this data was used in identifying key parts of the Transportation Disadvantage Index.

## Colorado Department of Public Safety (CDPS) Driving Under the Influence of Drugs and Alcohol Report

Rosenthal, A. (2023). *Driving Under the Influence of Drugs and Alcohol*. A Report Pursuant to C.R.S. 24-33.5-520. Office of Research and Statistics, Division of Criminal Justice, Colorado Department of Public Safety.

The CDPS annual report, *Driving Under the Influence of Drugs and Alcohol*, provides a comprehensive analysis of impaired driving offenses in Colorado. This was used in data analysis of the impairment focus area of the SHSP and provided key insights into what strategies could be implemented to reduce impaired driving in the state.

## Colorado Department of Transportation (CDOT) Annual Driver Behavior Survey

Corona Insights. (2024). A Report to the Colorado Department of Transportation. 2024 Driving Behavior Survey.

CDOT conducts an annual Driver Behavior Survey to assess residents' attitudes and practices regarding road safety, including seat belt use, speeding, distracted driving, and impaired driving.

This survey was used to evaluate the safety culture focus areas and provide and was used to select the focus area strategies.

## CDOT Crash Data

<https://www.codot.gov/safety/traffic-safety/data-analysis/crash-data>

CDOT maintains a comprehensive crash database to enhance traffic and highway safety, as mandated by federal law. This database includes statewide crash data from 2007 through 2024, with 2024 data being preliminary and subject to updates. CDOT processes and refines this data to support engineering analyses, safety performance evaluations, and infrastructure planning.

The Strategic Highway Safety Plan (SHSP) plan utilized this data as the primary data source for analyzing crash trends, and identifying the key focus areas that needed to be addressed in the SHSP.



## CDOT Seatbelt Survey

<https://www.codot.gov/safety/seatbelts>

CDOT conducts an annual statewide Seat Belt Survey to monitor and promote seat belt use across the state. The survey provided context on the seat belt usage rate across the state, which led to the development of strategies for the SHSP.

## Emergency Responder Safety Institute

<https://www.respondersafety.com/>

The Emergency Responder Safety Institute (ERSI) serves as an informal advisory panel of public safety leaders committed to reducing deaths and injuries to America's Emergency Responders. ERSI was used to provide additional data and context related to the First Responders Focus Area.

## National Highway Traffic Safety Administration (NHTSA) Fatal Analysis Reporting System (FARS)

<https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

FARS was established by the NHTSA in 1975, and serves as a comprehensive national database documenting fatal motor vehicle crashes across the United States.

This data was used to supplement any crash data that was not captured in CDOT's Crash Data. While this data is more comprehensive, it does not capture serious injury data at the state level, and is not as current as CDOT's crash data as it only captures data through 2022 at the time the SHSP was developed.

## NHTSA Fatal and Injury Reporting System Tool (FIRST)

<https://cdan.dot.gov/query>

NHTSA's FIRST is a tool that is an extension of the FARS data system. FIRST creates data queries to capture specific data.

This plan used FIRST in data analysis when specific data was needed and was not captured by other data sets. Examples of where this was used include restraint usage and crashes where speeding was involved.

## United States (US) Census Bureau

<https://www.census.gov>

The US Census Bureau is the principal agency of the federal government responsible for producing data about the American people and economy.

US Census Bureau data was used in order to compare per capita crash data in Colorado to the rest of the country.



# Appendix D

## Workshop Summaries

# Strategic Highway Safety Plan (SHSP) Stakeholder Hybrid Workshop Summary

## Overview

As part of the Strategic Highway Safety Plan (SHSP), the project team conducted a series of five hybrid workshops across Colorado. For those who could not attend in person, a virtual option was offered. These workshops provided stakeholders with a comprehensive overview of the SHSP, highlighting how the plan can benefit their communities and how they can actively participate in its development. The mission, vision, and goal of achieving zero roadway deaths were emphasized, supported by data on fatalities and serious injuries in Colorado. Using the Safe System approach, cross-agency/ sector collaboration was encouraged in an effort to reduce fatalities and serious injuries on Colorado roadways.

## Workshop Goals

Workshop goals included the following:

- » Influence strategies and initiatives that will shape Colorado's transportation safety.
- » Assess the current state of safety in Colorado to understand what is and what is not working.
- » Provide a platform for collaboration and engagement with the Colorado Department of Transportation (CDOT) and community members dedicated to improving road safety.
- » Discuss and identify potential funding sources to improve safety across Colorado.
- » Gather insights about community safety, perspectives, needs, and challenges.

## Workshop Format

The project team conducted a series of in-person workshops across each of CDOT's five engineering regions (Denver Metro, Northeast, Northwest, Southwest and Southeast). A hybrid approach was also provided to accommodate attendees virtually. Participants received an overview of the SHSP and were organized into groups of 4-6 individuals, based on attendance. To foster diverse perspectives and enhance the quality of feedback, attendees were encouraged to engage with colleagues from different departments rather than familiar associates. Facilitators were assigned to each group to gather insights and offer additional prompts as needed. The following four questions guided the discussions:

1. What contributing factors are not being represented in the data? What contributing factors align with the data?
2. What are the missing resources, elements, and communities needed to reduce fatalities and serious injuries?
3. What have your communities been doing well to improve traffic safety? Where can we double down?
4. What communities need to be brought together to strengthen the regional safety culture?

## Introduction to Common Themes

Each workshop generated a wealth of ideas, concepts, concerns, and recommendations related to statewide safety improvements. This summary highlights key takeaways and common themes identified across all five meetings, showcasing the collective insights of participants. Several recurring themes emerged consistently throughout the discussions. To review the workshop notes, see individual regions in this Appendix.

- » **Safety as a Priority:** Attendees unanimously agreed that safety is a paramount concern for Coloradans. Recognizing the current number of fatalities and serious injuries on Colorado roadways is unacceptable, participants expressed a collective commitment to invest their time and collaborate in efforts to reduce fatalities and serious injuries.
- » **Enhanced Driver's Education Programs:** There was a unanimous call for stronger, adequately funded and mandatory Driver's Education classes in schools. Participants emphasized the need for these programs to focus on safety and accessibility, particularly in rural and urban areas. Recommendations included making Driver's Education free for all students and expanding the age range for enrollment to start earlier and continue beyond the age of 18.
- » **Increased Funding for Safety Improvements:** Attendees stressed the necessity of more funding for safety initiatives, particularly for the recruitment of additional law enforcement officers, increased enforcement on the roads, and the implementation of automated enforcement, especially in rural areas.
- » **Grant Navigation Support:** Participants emphasized the need for additional resources and assistance for both rural and urban municipalities to increase awareness and understanding of available grant opportunities for safety projects. Stakeholders shared that many smaller communities face significant resource constraints and must juggle multiple responsibilities, making it challenging to identify and secure funding for critical safety improvements.
- » **Comprehensive Education Campaigns:** There is a strong desire for expanded educational campaigns aimed at diverse audiences. Suggested initiatives include Public Service Announcements, social media outreach, billboards, and videos to personalize safety messages and encourage behavioral change.
- » **Expansion of Partnerships:** Participants expressed a strong desire for enhanced collaboration between CDOT and other state and local agencies. While significant progress has been made in reducing fatalities and serious injuries on Colorado highways, it is essential to continue leveraging and expanding these partnerships to effectively capture and implement safety programs across the state.
- » **Speeding as a Major Safety Concern:** Participants recognized that speeding is a significant safety issue, with serious implications for road safety and broader community impacts. They identified speeding and aggressive driving as major contributors to serious injuries and fatal crashes. To address these challenges, attendees emphasized the need for improved compliance with new strategies.



## Region 5 - Durango, September 4th, 2024, 2:00-3:30pm

### Workshop Attendees

| Name            | Organization                         |
|-----------------|--------------------------------------|
| Ian Roberson    | City of Cortez                       |
| Kevin Hall      | La Plata County                      |
| Clyde Church    | La Plata County                      |
| Brett Williams  | Colorado State Patrol                |
| Angela Deguelle | CDOT                                 |
| Tim Funk        | CDOT                                 |
| Warren Brown    | Archuleta County                     |
| Tom Cowing      | La Plata County Sheriff's Office     |
| Shak Powers     | Region 9 Economic Development        |
| Christine Brice | School Community Youth Collaborative |
| Mark Garcia     | Montezuma County                     |
| Jim Candelaria  | Montezuma County                     |
| Annie A. Herzig | N/A Virtual Attendee                 |
| Brian Lyons     | Colorado State Patrol                |
| Tess Richey     | CDOT                                 |
| Scott Maurer    | CDL Mountain Training                |
| Joe T.          | N/A Virtual Attendee                 |
| Rosa Dimon      | School Community Youth Collaborative |

### Key Takeaways: Region 5 Workshop

Based on the collective feedback received, the following are key takeaways from the Region 5 hybrid workshop.

#### 1. Technology and Behavior-Driven Risks

- » **Less Route Planning:** Increased reliance on navigation apps and autonomous vehicle features may lead to less route planning by drivers.
- » **Behavioral Risks:** Distracted driving, aggressive driving, and impaired driving (particularly the combination of alcohol and marijuana) continue to be major behavioral safety concerns.
- » **Drug and Alcohol Manipulation:** There's a rising trend of younger adults manipulating marijuana and alcohol use to remain below legal intoxication limits.

#### 2. Data Gaps

- » **Tribal Data:** Tribal data is often missing, particularly regarding crashes on or near reservations.
- » **Winter Conditions and Unfamiliarity:** Unfamiliar drivers (tourists, new drivers) and their impact on crash statistics, especially during winter conditions, are underrepresented.
- » **Vulnerable Road Users:** Data on crashes caused by medical conditions, as well as incidents involving pedestrians, bicyclists, and younger drivers (16-25 age group), require more focus.

### 3. Need for Enhanced Education and Training

- » **Driver's Education:** There is a strong need for accessible and affordable driver education, with a focus on behind-the-wheel training, especially for younger drivers.
- » **Training for Officers:** Education and training for law enforcement are also essential, particularly regarding rural traffic safety challenges.
- » **Public Education:** More comprehensive public education on safety laws, like lane filtering for motorcycles, is needed to improve awareness.
- » **Commercial Vehicles:** More training and education is needed for commercial motor vehicles driving the mountainous terrains in Colorado.

### 4. Rural-Specific Challenges

- » **Lack of Options:** Rural areas face distinct issues such as a lack of rideshare options and public transportation, leading to increased impaired driving.
- » **Contributing Factor:** Establishments in rural areas are often observed to over-serve alcohol, contributing to unsafe driving behavior.
- » **Education for Visitors:** Tourists unfamiliar with local driving conditions, particularly during winter, are a notable safety risk in rural and mountainous regions.

### 5. Infrastructure and Resource Needs

- » **Funding for Infrastructure:** Additional infrastructure improvements like turning lanes, passing lanes, bike paths, and wildlife fencing are critical for rural roadways.
- » **Signage:** Bilingual signage and more advanced road signs would improve safety for diverse populations, including non-English speakers.
- » **Low Visibility:** There's a call for increased enforcement, more advanced signage (including flashing yellow arrows), and better striping in areas with low visibility.

### 6. Collaboration and Community Involvement

- » **Safety Improvements:** Successful collaboration between rural communities and organizations like CDOT has led to safety improvements.
- » **Stronger Engagement:** Non-profit organizations, tribal communities, tourism boards, city/county health departments, and law enforcement need to be more engaged to strengthen regional safety efforts.
- » **Media Engagement:** Community-based education initiatives and partnerships with local media have proven effective in reaching broader audiences on traffic safety issues.

These takeaways highlight the need for a combination of better data collection, increased education, and targeted infrastructure improvements to address regional traffic safety concerns.

# Region 3 - Glenwood Springs, September 5th 2024, 1:30-3:00pm

## Workshop Attendees

| Name              | Organization          |
|-------------------|-----------------------|
| Dana Wood         | NWCCOG                |
| Richard Davies    | Eagle County          |
| Andrew Knapp      | Pitkin County         |
| Michelle Metteer  | Town of Minturn       |
| Don Potter        | CDOT                  |
| Scott Mauer       | CDL Mountain Training |
| Drew Stewart      | CDOT                  |
| David Swenka      | CDOT                  |
| Major Brian Lyons | CSP                   |
| Aaron Willis      | CDOT                  |

### Key Takeaways: Region 3 Workshop

Based on the collective feedback received, the following are key takeaways from the Region 3 hybrid workshop.

#### 1. Data Gaps and Representation

- » **Speeding Data:** Contextual information such as speed limits and location types (interstates, lower-speed corridors) should be included to provide a more accurate understanding of speeding-related crashes.
- » **Clarification of Severe Crash Data:** Categories like medical emergencies, vehicle defects, and wildlife-related crashes need clearer classification in crash reports.
- » **Weather-Related Crashes:** There is a need to better capture and standardize data on weather-related incidents, as law enforcement currently reports this through inconsistent forms.
- » **Impaired Driving:** Current data on marijuana impairment and polydrug use (mixing multiple substances) is lacking, with impairment reports coming too late in the process from coroner data.

#### 2. Infrastructure and Project-Specific Funding

- » **Infrastructure Funding:** More funding is needed for specific improvements such as intersection redesigns, acceleration/deceleration lanes, safer off-ramps, and roundabouts.
- » **Innovation:** Engineering standards are not keeping up with the latest trends and technologies, highlighting a need for innovative solutions, such as looking to other states for infrastructure ideas (e.g., Michigan Lefts).

#### 3. Collaboration and Stakeholder Engagement

- » **Alignment:** Policy changes made at the state level don't always align with local needs. Transparency and collaboration between state and local entities need improvement.

- » **Safety & Access Management:** Stakeholder engagement should be prioritized, especially involving professionals in community engagement. Local communities often feel that their priorities, such as safety and access management, are not aligned with CDOT's.
- » **Bridging Relationships:** Personal agendas at the local level can hinder collaboration, making it crucial to bridge relationships between local and state agencies.

#### 4. Community-Led Safety Improvements

- » **Multimodal Efforts:** Communities have been proactive in improving safety for non-vehicular users, including installing sidewalks, roundabouts, pedestrian bridges, bike paths, and speed tables. These measures have helped cyclists feel safer on roadways.
- » **Transit Expansion:** Public transportation, such as the Bustang West Line and the Roaring Fork Transportation Authority's (RFTA's) support for alternative modes of transit, has been effective, with fare-free zones increasing ridership.

#### 5. Inclusion of Diverse Communities

- » **Underrepresented Groups Outreach:** To strengthen regional safety culture, more inclusion of underrepresented groups like Latino populations, young drivers, and non-vehicular communities is needed.
- » **New Ideas:** Cross-state collaboration, such as learning from innovative planners in places like Salt Lake City, could also bring fresh perspectives and ideas for traffic safety improvements.

#### 6. Data-Driven Targeted Enforcement

- » **Targeted Enforcement:** Law enforcement has used historical data to target head-on crashes. They have met with local citizens, and partnered with the media through radio and social media messaging to conduct large-scale target enforcement.
- » **Penalties:** Strong partnerships with adjudication have led to automatic penalties for drivers excessively exceeding the speed limit and dangerous driving habits.
- » **Neighboring States Best Practices:** Tracking motorcycle crash trends and coordinating with neighboring states for potential educational campaigns such as Utah.
- » **Vulnerable Road User Legislation:** Speed cameras have been installed along Highway 70. Exploring potential to expand the use of speed cameras with the Vulnerable Road User legislation.

These takeaways emphasize the need for better data representation, enhanced collaboration between agencies, and a focus on community-driven safety measures and infrastructure improvements.



## Region 2 - Pueblo, September 10th 2024, 1:30-3:00pm

### Workshop Attendees

| Name            | Organization                      |
|-----------------|-----------------------------------|
| Laura Leyba     | Transportation Advisory Committee |
| Scott Steimmer  | CDOT                              |
| Chuck Lopez     | Pueblo Transit                    |
| Jason Nelson    | CDOT                              |
| Karen Aspelin   | Olesson                           |
| Geoff Guthrie   | CDOT Region 2 Planning            |
| Eva Cosyleon    | PACMPO                            |
| Helen Dupree    | City of Pueblo                    |
| Pepper Whittlel | CDOT                              |
| Bill Thiebeut   | Pueblo D60 School District        |
| Karen Rowe      | PPACG                             |
| Brian Lyons     | Colorado State Patrol             |
| Matt Jordan     | CDOT Region 2 Planner             |
| Donald Bruertle | PACOG TAC                         |
| Cheryl Spinuzzu | TAC                               |
| Gregory George  | Pueblo County                     |
| Todd Frisbie    | City of Colorado Springs          |
| Amanda Holson   | Pueblo County                     |
| Alex Armendoriz | Pueblo County                     |
| David Swenka    | CDOT                              |
| Victoria Chavez | El Paso County                    |
| Abda Dwivedy    | Town of Fountain                  |
| Danelle Miller  | PPACG                             |
| Dahir Egal      | FHWA                              |

### Key Takeaways: Region 2 Workshop

Based on the collective feedback received, the following are key takeaways from the Region 2 hybrid workshop.

#### 1. Data Representation and Gaps

- » **Environmental Factors:** There is a need for more detailed data on how environmental factors affect crashes, like lighting/visibility, road conditions and infrastructure, and weather.
- » **Enforcement and Reporting:** There needs to be more reporting on distracted driving and other contributing factors to crashes during the enforcement process. The process also needs to be simplified so it is as easy as possible to include lots of information.

- » **Varied Crash Data:** There needs to be more data on contributing factors like speeding, wildlife, impairment, infrastructure failure, vehicle size, and extent of injury. There also needs to be more information on secondary crashes and near misses to get a better picture about why and how crashes are happening.

## 2. Infrastructure and Design Gaps

- » **Multimodal Infrastructure:** Pedestrian and bike infrastructure needs to be improved to make travel safer for users and encourage alternate modes.
- » **Lighting:** Street and highway lighting should be increased, especially at intersections. This will help with car and pedestrian safety.
- » **Wildlife:** Infrastructure needs to be aware of wildlife and design for them. Wildlife fencing and other mitigation strategies should be more widespread.

## 3. Education and Awareness Gaps

- » **Driver's Education:** In rural areas, Driver's Education is expensive and inaccessible, leaving gaps in proper training, especially on handling difficult and rural road conditions. There was a consensus that Drivers Education should be more readily available at low or no cost. Attendees expressed a desire for the education to focus on consequences of risky and unsafe behavior. There was also desire for education in general to be broader on transportation so drivers have better foundational knowledge.
- » **Colorado Roads and Rules:** Unfamiliar drivers such as tourists and new drivers need more support since they are more vulnerable to understanding Colorado roads and unusual intersections and roundabouts.
- » **Engineering as a Profession:** There needs to be more encouragement to pursue traffic engineering as a profession. The state needs more engineers, especially those focusing on safety and stakeholder engagement. Currently there is not a college major specific to transportation engineering.

## 4. Enforcement and Policy Gaps

- » **Automated Enforcement:** There's a call for more automated enforcement in high-risk areas such as work zones, highways, and high-speed corridors, due to staff safety and shortages.
- » **Judicial Accountability:** Currently it is easy to avoid the consequences of a traffic citation. There needs to be more penalties or more severe penalties for these violations. For example, vehicle impounding is a method which keeps repeat offenders off the road.
- » **Staffing:** Enforcement and safety agencies are facing staffing shortages due to funding and availability. Maintenance dollars and staff are needed for roadways, enforcement dollars are needed to enforce the policies being discussed, and communities need engineering staff.

## 5. Funding Challenges

- » **Grant Workforce:** Communities, especially smaller ones, need staffing to help apply for and follow through with grants. They are faced with confusion over where to find these opportunities due to a lack of resources, as well as challenges that go along with being a smaller community who may receive smaller grants.

## 6. Community Successes in Improving Safety

- » **Policies and Planning:** Communities have been successful with planning efforts like right-of-way (ROW) coordination, lane diets, and Americans with Disabilities Act (ADA) engagement. Community engagement and safety evaluations have been successful in finding low-cost safety solutions.
- » **Intersection Safety:** There was positive feedback on work being done to make intersections safer, like roundabout installations, bike lanes and beacons, traffic calming measures, and creating sight lines.

## 7. Double Down on Safety Efforts

- » **Grant Application:** There has been a lot of success with the Safe Routes to School and Safe Streets and Roads for All grants, and smaller communities have begun to get involved in making their communities safer.
- » **Multimodal Safety:** Changing policies and infrastructure have made pedestrian and cyclist safety a priority. There is also a strong desire to keep building transit and other alternative transportation choices, so communities have a choice.
- » **Community partnerships:** CDOT collaboration with communities on projects has been successful. Interagency collaborations between law enforcement have increased the robustness of the data network.

## 8. Communities Needing Stronger Engagement

- » **Local, County, and State Officials:** There was a strong desire to see more collaboration between different levels of government, within Colorado and outside the state. There was also a desire to include community groups and nonprofits in these discussions.
- » **Vulnerable Road Users:** For transportation equity, there needs to be more engagement with communities more dependent on transit and other modes, such as migrant communities, the disabled community, younger and older drivers, and multimodal users.
- » **Youth:** There was unanimous agreement that young people need to be engaged more, with programs teaching the importance of safety and transportation like scholarships or internships, to focusing outreach on universities and schools to create peer-to-peer mentorship.

## Region 4 - Greeley, September 11th 2024, 3:00-4:30pm

### Workshop Attendees

| Name                | Organization             |
|---------------------|--------------------------|
| Eric Tracy          | Larimer County           |
| Kevin Hettinger     | Weld County Public Works |
| Tim Elisson         | CDOT Greeley             |
| Tyler Stamey        | City of Fort Collins     |
| Phillip Gurley      | Colorado State Patrol    |
| Heather Paddock     | CDOT                     |
| Amy Thompson        | BVSD                     |
| Elizabeth Relford   | Weld County              |
| Sophia Yang         | JEO Consulting Group     |
| Dahir Egal          | FHWA                     |
| Liv Lewin           | Boulder County           |
| Anthony Scaggiari   | City of Dacono           |
| Mark Peterson       | Larimer County           |
| Josie Thomal        | CDOT                     |
| Bart Trippel        | CSP                      |
| Mykayla Marek       | NFRMPO                   |
| Evan Pinkham        | Weld County              |
| Erik Braaten        | DRCOG                    |
| Katrina Klobberdanz | CDOT                     |
| Deanna McIntosh     | CDOT R4                  |
| Mark Northrop       | NFRMPO                   |
| Shani Orter         | Severance                |
| Steven Youukin      | Greeley Public Works     |
| Alexandra Phillips  | Boulder County           |

### Key Takeaways: Region 4 Workshop

Based on the collective feedback received, the following are key takeaways from the Region 4 hybrid workshop.

#### 1. Data Representation and Gaps

- » **Behavioral Data:** There's a need for more detailed data on aggressive driving, road rage, distracted and drowsy driving, and emotional states like frustration. These behaviors are underreported and not effectively captured.
- » **Vehicle and Environment Factors:** Data on vehicle type/size, the effectiveness of vehicle technology, and movement patterns before crashes need more emphasis.



- » **Specific Data Needs:** More data is needed for unsafe corridors, non-fatal crashes, and primary vs. secondary crashes. Specific data related to medical conditions, road conditions, and wildlife crashes are also lacking.
- » **Equity Zones:** There's a call to examine any correlations between crash data and equity zones to ensure fairness in safety measures.

## 2. Infrastructure and Design Gaps

- » **Road Conditions:** Swerving to avoid potholes, poor road design, and weather conditions that enable speeding are contributing factors not always captured in the data.
- » **Infrastructure Misalignment:** Current infrastructure often doesn't align with the needs of vulnerable road users (pedestrians, cyclists) and capacity improvements.
- » **Roundabout and Difficult Condition Navigation:** There is a need for better education on navigating roundabouts and difficult road conditions.
- » **Work Zones:** Policies around work zone safety and setup require more focus, especially in terms of funding and planning.

## 3. Education and Awareness Gaps

- » **Driver's Education:** In rural areas, driver's education is expensive and inaccessible, leaving gaps in proper training, especially on handling difficult road conditions.
- » **Public Awareness Campaigns:** There is a need for storytelling, public service announcements (PSAs), and media engagement to increase awareness of traffic laws, especially regarding work zone safety and road rage.
- » **Vulnerable Road Users:** Safety education should target vulnerable populations, such as older adults, underserved communities, and students, to promote multimodal options and traffic safety.
- » **Commercial Motor Vehicles:** Messaging to the public regarding traveling around commercial motor vehicles as well as increased access to education for new fleet drivers.

## 4. Enforcement and Policy Gaps

- » **Automated Enforcement:** There's a call for more automated enforcement in high-risk areas such as work zones, highways, and high-speed corridors.
- » **Workforce Shortages:** There's a shortage of personnel for infrastructure development, and law enforcement staffing needs to be increased to enforce traffic safety laws effectively.
- » **Wildlife Mitigation and Travel Alternatives:** Mitigation policies for wildlife-related crashes and more alternative transportation options are needed.
- » **Targeted Education and Enforcement:** Continue to partner with local agencies to share information on impaired driving and number of lives lost in the community. Select events (e.g., State Fair, holiday weekend) to do targeted enforcement. Recent operation by Colorado Police led to 23 impaired driving arrests and only one non-serious crash compared to 4 impaired-related fatalities last year.

## 5. Collaboration and Stakeholder Engagement

- » **Interagency Coordination:** There's a need for better coordination between local, county, CDOT, and the Federal Highway Administration (FHWA) to create more effective and aligned policies.

- » **Partnerships and Regional Cooperation:** Communities are doing well at building partnerships with CDOT, Colorado State Patrol (CSP), and regional organizations, but these collaborations could be further strengthened, especially with CSP's involvement during project design.
- » **Community Involvement:** Local legislators, media outlets, and community advocates should be more engaged in discussing traffic safety beyond just fatalities.

## 6. Funding Challenges

- » **Grant Accessibility:** The process of applying for funding is cumbersome, requiring nearly shovel-ready projects, which frustrates local municipalities. There is also a need for a statewide grant liaison to assist in navigating funding processes.
- » **Work Zone and Safety Planning:** More funding is needed for work zone planning and infrastructure protection, especially in rural areas.

## 7. Community Successes in Improving Safety

- » **Infrastructure:** Communities have been successful in obtaining grants and implementing new safety measures such as roundabouts, sidewalks, and bike/pedestrian facilities.
- » **Data Utilization:** Data is becoming more timely and is being used effectively to solve systemic issues, particularly in high-risk areas.
- » **Collaboration:** Regional cooperation between CDOT, CSP, and other partners has resulted in improved planning and safety measures, particularly in areas like rail crossings and vulnerable road users.

## 8. Double Down on Safety Efforts

- » **Funding and Enforcement:** Communities should continue pursuing more accessible funding streams and increase staffing for law enforcement to ensure better enforcement of traffic safety laws.
- » **Education and Engagement:** Expanding road safety audits, site visits, and sign replacements are critical areas where efforts can be doubled down.
- » **Work Zone Safety:** Training on work zone safety and engaging in public outreach are also areas of focus.
- » **Vulnerable Road Users:** Greater attention should be paid to all modes of transportation and providing safety education for non-vehicular users, particularly older adults, youth, and the underserved population.

## Region 1 - Denver, September 12th 2024, 2:00-3:30pm

### Workshop Attendees

| Name                | Organization                     |
|---------------------|----------------------------------|
| Dennis Atencio      | Apex Transportation              |
| Matt Wempe          | City of Golden                   |
| Joe Trussell        | CDL 303                          |
| Alazar Tesfuno      | CDOT R1                          |
| Emily Kleinfelder   | City of Littleton                |
| Jim Moody           | Colorado Contractors Association |
| Mike Whitaker       | City of Lakewood                 |
| Laurie Lovedee      | UC Health                        |
| Emma Devostidd      | City of Denver                   |
| Mitch Ries          | City of Denver                   |
| Angie Drumm         | CDOT                             |
| Jessica Myklebust   | CDOT                             |
| Don Gross           | Y2K                              |
| Gabriella Kolodzy   | TTI Teens in the Driver Seat     |
| Shane Cunningham    | Douglas County                   |
| Eric Stein          | City and County of Denver        |
| Kate Young          | Colorado Motor Carriers          |
| Mindie Utke         | Advent Health Parker             |
| Rolf Esinger        | City and County of Denver        |
| Jim Coleman         | N/A                              |
| Major Brian Lyons   | CSP                              |
| Kathy Myers         | N/A                              |
| Benedict Wright     | Bicycle Colorado                 |
| Darrell Alstop      | N/A                              |
| Jody Davidson       | DOTI                             |
| Scott Maurer        | COL 303                          |
| Thomas Tapero       | WWPNA Bicycle CO                 |
| Ross Washburn       | NHTSA                            |
| Tom Workes Braddock | City of Aurora                   |
| Marsha Nelson       | CDOT                             |
| Matt Duncan         | City of Lakewood                 |
| Josh Sender         | Adams County                     |
| Ginna Jones         | CDPHE                            |

## Key Takeaways: Region 1 Workshop

Based on the collective feedback received, the following are key takeaways from the Region 1 hybrid workshop.

### 1. Data Gaps and Contributing Factors

- » **Weather-Related and Environmental Data:** More information is needed on weather impacts and road conditions to better understand contributing factors in crashes.
- » **Demographics and Equity:** Uninsured motorist data and the needs of underserved communities, especially those without access to vehicles, are underrepresented in crash data.
- » **Behavioral Data:** More data is needed on driver behavior, particularly around reliance on driver-assist technology, distracted driving, and impaired driving among young drivers (16-25 years old).
- » **Intelligent Speed Enforcement:** More data is needed on speed enforcement's effectiveness, including automated enforcement.
- » **Equity in Safety Efforts:** A focus on equity is required, ensuring safety investments benefit underserved communities.

### 2. Missing Resources, Elements, and Communities for Safety Improvements

- » **Education:** Free or accessible driver's education programs are needed, along with campaigns to educate commuters. Education should also focus on work zone safety, making it personal (e.g., My Dad Works Here) to drive awareness.
- » **Enforcement Challenges:** There's a disconnect between the judicial system and law enforcement on how speeding violations are handled, with fines too low and automated enforcement facing opposition.
- » **Collaboration and Interagency Cooperation:** Safety improvements require stronger cooperation beyond just transportation agencies. Involvement from other sectors such as law enforcement, mental health services, and judicial branches is necessary.
- » **Vulnerable Road Users:** Greater focus is needed on educating young, inexperienced drivers and informing the public about new motorcycle laws (e.g., lane filtering, lane splitting) and helmet laws.
- » **Infrastructure and Innovation:** Communities need funding to improve infrastructure for multimodal travel and safety, but lack of opportunity and resources for safer modes of travel limits progress. More innovation champions are needed to promote best practices.

### 3. Current Successes in Improving Traffic Safety

- » **Education Programs:** Communities have been successful in providing public education around road safety, especially for high school students and teen drivers (e.g., Advent Health's Choose Safety program).
- » **Bike and Pedestrian Safety Education:** Denver's education efforts on bike/pedestrian lanes have made progress in promoting safe use of non-vehicular modes of transport.
- » **Collaboration and Partnerships:** Local and federal agency coordination is improving, with new partnerships formed to address traffic safety (e.g., partnerships between schools and health organizations).
- » **Policies and Road Safety Audits:** Comprehensive crash audits, interactive maps, and quick-build projects are helping communities address high-risk areas quickly.



#### 4. Areas to Double Down on Safety Efforts

- » **Driver's Education:** Continue to expand and improve educational initiatives for new and experienced drivers, with consistent messaging across communities.
- » **Culture Change:** Encouraging a shift in culture around road safety, especially when it comes to speeding and risky driving behaviors, is key to long-term success.
- » **Promoting Engineering Careers for Youth:** There's a need to educate and inspire younger generations to engage in transportation engineering and safety.

#### 5. Communities to Bring Together to Build A Stronger Regional Safety Culture

- » **Statewide Partnerships:** Collaboration is needed between the Department of Revenue (DOR), judicial branches, insurance companies, school districts, law enforcement, and others to form a comprehensive approach to speeding and safety enforcement.
- » **Underserved and Vulnerable Communities:** Focus on engaging underserved populations without vehicle access, bilingual communities, and vulnerable road users.
- » **Freight and Rail Coordination:** Engage freight and railroad operators in regional safety planning.

## SHSP Stakeholder Virtual Workshop Summary

### Overview

At the conclusion of the hybrid workshops the project team pivoted to ensure stakeholders across the state had additional opportunities to engage. In an effort to capture more feedback, the project team added additional virtual workshops in each of CDOT's five engineering regions (Denver Metro, Northeast, Northwest, Southwest and Southeast).

The workshops provided stakeholders with a comprehensive overview of the SHSP, highlighting how the plan can benefit their communities and how they can actively participate in its development. The mission, vision, and goal of achieving zero roadway deaths were emphasized, supported by data on fatalities and serious injuries in Colorado. Using the Safe System approach, cross-agency/sector collaboration was encouraged in an effort to reduce fatalities and serious injuries on Colorado roadways. After a brief presentation, stakeholders were broken into groups to begin the workshops.

### Workshop Goals

Goals of the virtual workshops included the following:

- » Influence strategies and initiatives that will shape Colorado's transportation safety.
- » Assess the current state of safety in Colorado to understand what is and what is not working.
- » Provide a platform for collaboration and engagement with CDOT and community members dedicated to improving road safety.
- » Discuss and identify potential funding sources to improve safety across Colorado.
- » Gather insights about community safety, perspectives, needs, and challenges.

## Workshop Format

After the overview presentation, meeting attendees were asked a series of poll questions specific to safety concerns and priorities to elevate thoughtful upcoming workshop discussions. Poll questions and answers were as follows:

- » **Using one word, what is your most significant transportation safety concern?** Common responses included speeding, impairment, distraction, distracted driving, and aggression.
- » **According to Colorado's VRU Assessment, Disproportionately Impacted Communities (DIC) are twice as likely as non DIC to experience a fatal VRU crash, True or False?** The correct answer was True. Disproportionately Impacted Communities include areas having 40% or more persons of color, or 20% or more language isolated persons.
- » **Which type of crash results in the most deaths in Colorado? Poll choices were Wildlife, Rural Roadway Departure, Head On, Intersection Related, or Motorcycle.** The correct answer was intersections, as crashes occurring at or related to intersections represent approximately 40% of all fatal and serious injury crashes.
- » **According to Fatal Analysis Reporting System (FARS), what percentage of fatal crashes involved distraction. Poll choices were 4%, 8%, 12%, or 16%.** The correct answer is 8% of fatal crashes involved distraction. Five percent of drivers involved in fatal crashes were distracted. 12% of all distracted-affected fatal crashes involved cell phone use.
- » **Immediate medical attention and proper care can be the difference between a crash resulting in an injury and a fatality. What percentage of people survive the initial crash and die later of their injuries? Poll choices were 10%, 20%, 30%, or 40%.** The correct answer is 40%.

Attendees were then placed in Zoom breakout rooms into groups of 4-6 individuals, based on attendance. The questions were continued conversations from many of the poll questions. Facilitators and a notetaker were assigned to each breakout room to gather insights and offer additional prompts as needed. Input was collected through a Mural Board. The following four questions guided the discussions:

- » **Question 1:** What factors are leading to the over-representation of Disproportionately Impacted Communities in crashes that are leading to fatality and serious injuries?
- » **Question 2:** Why is it that intersection related crashes account for the most fatalities and serious injuries in urban areas? In rural areas, roadway departures result in more fatalities and serious injuries than do intersection crashes. Why?
- » **Question 3:** Distracted driving represents 8% of the driving- related fatalities. What other behavioral factors are contributing to crashes? What is influencing these risky behaviors?
- » **Question 4:** What can we do to improve the safety culture within our organizations? Within the communities that we serve? Around the state?

## Introduction to Common Themes

The following key themes and findings from the workshops held across all five CDOT regions, emphasize transportation safety, infrastructure challenges, and community factors influencing road safety.

## 1. Transportation Infrastructure Challenges

- » **Inadequate Design and Maintenance:** Across all regions, communities report a lack of essential transportation infrastructure, like bike lanes, sidewalks, and safe crossings. Poorly designed intersections and inadequate maintenance of roadways contribute significantly to crash risks, particularly in rural areas where visibility and shoulder conditions are often insufficient.
- » **Accessibility Issues:** Vulnerable road users (VRUs), including pedestrians and cyclists, face heightened risks due to unsafe infrastructure and a lack of accessibility, especially in lower-income and unincorporated areas.

## 2. Vulnerability of Road Users

- » **Increased Exposure:** Disproportionately impacted communities have a higher prevalence of VRUs, leading to significant risks from unsafe infrastructure and behavioral factors. Many individuals in these communities also have limited access to essential services, further increasing reliance on vehicles.
- » **Behavioral Risks:** Risky behaviors such as distracted driving, speeding, and impaired driving are common contributors to crashes, exacerbated by cultural norms that normalize these practices.

## 3. Socioeconomic and Cultural Influences

- » **Cultural Norms:** A prevailing culture that accepts risky behaviors contributes to unsafe driving practices. Post-COVID attitudes have shifted towards individualism, negatively impacting community safety perceptions.
- » **Economic Pressures:** Socioeconomic factors drive individuals to make risky decisions, such as hurried transit to jobs, which can lead to neglecting safety practices like using crosswalks.

## 4. Education and Awareness

- » **Lack of Education:** There is a recognized need for educational initiatives targeting both drivers and pedestrians, particularly youth. Programs focusing on safe driving practices and road rules can significantly improve safety outcomes.
- » **Awareness Gaps:** Disparities in driver education and awareness of changing traffic laws hinder safe practices, particularly among lower-income communities. Engaging communities through educational programs can foster accountability and safer behaviors.

## 5. Policy and Enforcement

- » **Need for Stronger Policies:** Effective traffic management policies and enforcement mechanisms are necessary to address unsafe driving behaviors and improve roadway design. This includes better signage, speed management practices, and the implementation of technology for monitoring and enforcement.
- » **Collaborative Efforts:** Partnerships between local governments, community organizations, and transportation agencies are essential for implementing comprehensive safety strategies and addressing systemic issues.

## 6. Innovative Solutions and Community Programs

- » **Youth and Workplace Initiatives:** Programs targeting young people can cultivate a culture of safety from an early age. Additionally, organizations can enhance safety by promoting advanced driving courses, carpooling, and alternative transportation methods.
- » **Enhanced Safety Culture:** Strategies for fostering a safety culture include promoting open discussions about mistakes, establishing clear safety expectations, and engaging in community education initiatives.

## Region 5 - Virtual, September 23rd, 2024, 1:00-3:00pm

### Virtual Workshop Attendees

| Name              | Organization                           |
|-------------------|----------------------------------------|
| Melodie Clayton   | CDOT Project Team                      |
| Gabrielle Gamily  | CDOT Project Team                      |
| Matt Brown        | Stolfus Project Team                   |
| Brendan Sullivan  | Stolfus Project Team                   |
| Sheryl Beckman    | Stolfus Project Team                   |
| Mikayla Britsch   | Stolfus Project Team                   |
| Frank Gross       | VHB Project Team                       |
| Annie Altwarg     | San Luis Valley Great Outdoors         |
| David Swenka      | CDOT                                   |
| Major Brian Lyons | Colorado State Patrol                  |
| Sanjiv Gupta      | CDOT Safety Circuit Rider              |
| Karl Johnson      | Pagosa Springs                         |
| Carol Gould       | Highway Safety Office                  |
| Shak Powers       | Region 9 Economic Development District |
| Erin Beckett      | Department of Revenue- Crash Unit      |
| Jennifer Allison  | CDOT Region 5                          |
| San Lee           | CDOT                                   |
| Glen Davis        | Highway Safety Office                  |

### Key Takeaways: Region 5 Virtual Workshop

Based on the collective feedback received, the following are key takeaways from the Region 5 virtual workshop.

#### 1. Transportation Infrastructure Challenges

- » **Infrastructure and Design Issues:** Poor roadway design, especially in urban settings and high vehicle speeds increase the risk of fatal crashes. Poor traffic signals and insufficient crossings further contribute to this issue.
- » **Economic and Resource Barriers:** Challenges with accessing grant funding and the capacity to manage projects impede safety improvements. Lack of vehicle access and pathways in regions like San Luis Valley also heightens risks for non-vehicle users.

#### 2. Barriers to Access

- » **Educational Barriers and Vulnerability:** Disproportionately impacted communities often lack access to driver education and road safety information. The physical vulnerability of pedestrians and cyclists compared to vehicles is another critical factor.
- » **Language and Cultural Barriers:** Immigrant populations face language barriers, limiting their understanding of traffic laws and safety practices, increasing their risk of crashes.



### 3. Urban vs Rural Challenges

- » **Urban Areas:** The complexity of intersections, multiple road users (vehicles, pedestrians, buses), and unpredictable behaviors at intersections contribute to higher crash rates in urban areas. Design flaws, such as wide roads encouraging higher speeds and inadequate crossing times, exacerbate these issues.
- » **Rural Areas:** In rural areas, roadway departures are the leading cause of fatalities due to geographic challenges, such as mountain passes, poor lighting, longer emergency response times, and hazardous road conditions, including two-lane passing zones.

### 4. Behavioral Factors Contributing to Crashes

- » **Underreported Distracted Driving:** Distraction likely contributes more to crashes than reported. Current data may not fully capture the issue due to underreporting of distractions such as cell phone use and in-car technology.
- » **Other Risky Behaviors:** Additional factors include impaired or drowsy driving, speeding, road rage, and improper restraint use. There is also a cultural sense of entitlement to speed or aggressive driving, influenced by societal pressures and mental health issues.
- » **External Distractions:** Drivers are also affected by external distractions such as wildlife and roadside billboards, contributing to crash risks.

### 5. Working Together for Safety Culture

- » **Leadership and Advocacy:** There is a need for strong leadership in promoting safety culture, not only by recognizing challenges but by actively championing traffic safety initiatives. Examples include organizing Traffic Safety Summits and engaging local governments.
- » **Partnerships and Collaboration:** Collaboration with local entities and fostering partnerships are crucial to advancing road safety. This includes diverse representation on decision-making committees like bicycle and pedestrian safety committees.
- » **Modeling Safe Behaviors:** Simple actions such as wearing seat belts, adhering to speed limits, and discouraging texting while driving are key to promoting a culture of safety.

### 6. Data and Reporting Issues

- » **Distracted Driving Data:** There is a need for better data collection on distracted driving. Observational seatbelt surveys and other data sources should be leveraged to provide more nuanced insights.
- » **Underreporting of VRU Crashes:** There is concern that VRU crashes, particularly those involving pedestrians and cyclists, are underreported. Additionally, areas with poor cell coverage can delay or prevent crash reporting, compounding the problem. This is common in Region 5 rural communities.

These key takeaways highlight the multifaceted challenges facing disproportionately impacted communities and the importance of addressing infrastructure, behavior, and systemic barriers to improve road safety.

## Region 2 - Virtual, September 30th 2024, 2:00-4:00pm

### Virtual Workshop Attendees

| Name                | Organization                                                |
|---------------------|-------------------------------------------------------------|
| Christina Hopewell  | Pueblo Department of Public Health and Environment          |
| Dylan Goodman       | Pueblo Area Council of Governments MPO                      |
| Justine Gonzales    | Department of Revenue                                       |
| Lee Evans           | City of Canon City                                          |
| Mikey Guanipa       | CDOT HQ                                                     |
| Sanjiv Gupta        | CDOT HQ                                                     |
| San Lee             | CDOT HQ                                                     |
| Melodie Clayton     | CDOT Project Team                                           |
| Gabrielle Gamily    | CDOT Project Team                                           |
| Hope Hunt           | Northwest Colorado Center for Independence                  |
| Emma Bernick        | El Paso County Public Health                                |
| Eva Cosyleon        | PACOG MPO                                                   |
| Betty Lawrence      | Land Use Coordinator in Bent County                         |
| Pamela Denahy       | City of La Junta Director of Tourism & Economic Development |
| Rebecca Sykes       | CDPHE                                                       |
| Glenn Davis         | Highway Safety Office                                       |
| Christy Tennant     | Injury Prevention Common Spirit Health                      |
| Victoria Chavez     | N/A                                                         |
| Gabriella Kolodzy   | Teens in the Driver's Seat                                  |
| Reinaldo Maristandy | N/A                                                         |
| Jason               | Pikes Peak Area Council of Governments (PPACG)              |
| Lindsey Jaquez      | N/A                                                         |
| Justine Gonzales    | N/A                                                         |
| Hector Guanipa      | N/A                                                         |
| Crystal Soderman    | Department of Revenue                                       |
| Tanis Manseau       | N/A                                                         |
| Fred Stewart        | N/A                                                         |
| Leo Evans           | N/A                                                         |
| Matt Brown          | Stolfus Project Team                                        |
| Brendan Sullivan    | Stolfus Project Team                                        |
| Sheryl Beckman      | Stolfus Project Team                                        |
| Kara Peach          | VHB Project Team                                            |

## Key Takeaways: Region 2 Virtual Workshop

Based on the collective feedback received, the following are key takeaways from the Region 2 virtual workshop.

### 1. Vulnerable Road Users and Community Safety

- » **High Vulnerability:** Increased presence of VRUs (e.g., pedestrians, cyclists) in urban areas, particularly due to factors like homelessness and economic constraints, makes those areas more susceptible to serious and fatal crashes.
- » **Infrastructure Gaps:** Lack of safe infrastructure for these users, such as poorly maintained roads and insufficient facilities for mobility-impaired individuals makes them more vulnerable.

### 2. Driver Behavior and Education

- » **Risky Behaviors:** There is a high prevalence of distracted driving, speeding, and impaired driving. Cultural attitudes towards these behaviors contribute to their normalization.
- » **Education Needs:** There is insufficient driver education, especially for young drivers. Communities are calling for early and comprehensive education on road safety.

### 3. Crash Patterns and Infrastructure Issues

- » **Intersection Challenges:** A significant number of crashes occur at intersections due to poor design, inadequate management, and driver misjudgment.
- » **Roadway Design Flaws:** Rural areas face specific challenges like long straight sections without adequate safety features (e.g., shoulders, signage), which make roadway departure crashes more likely and harder to recover from.

### 4. Economic and Social Determinants

- » **Economic Constraints:** Limited resources impact vehicle maintenance and access to safer transportation options. Competing community priorities hinder investment in infrastructure.
- » **Social Factors:** Issues like poverty and lack of community resources affect driving behaviors and safety awareness, making daily commutes more risky.

### 5. Cultural and Behavioral Influences

- » **Cultural Attitudes:** Differences in safety perceptions across different aged drivers, including a lack of awareness about the risks associated with certain driving behaviors, make safety enforcement more difficult.
- » **Community Engagement:** Using grassroots efforts and local partnerships to foster a culture of safety through education and outreach will make everyone safer.

### 6. Policy and Enforcement Challenges

- » **Enforcement Gaps:** Limited law enforcement resources lead to inadequate enforcement of traffic laws, contributing to high-risk behaviors.
- » **Policy Advocacy:** There is a need for stronger penalties and policies to deter unsafe driving practices, along with a push for primary seat belt laws and helmet regulations.

### 7. Innovation and Technology Use

- » **Data-Driven Solutions:** New emphasis on utilizing data to identify high-risk areas and inform decision-making for safety improvements.

- » **Technology Integration:** There is potential for technology, like speed monitoring apps, to enhance awareness and compliance among drivers.

## 8. Collaborative Efforts and Initiatives

- » **Community Partnerships:** Formation of multidisciplinary teams and partnerships with law enforcement to address traffic safety through collaborative programming.
- » **Educational Initiatives:** More initiatives aimed at engaging youth and community members in safety programs and peer education.

This summary highlights the need for comprehensive strategies that address both the infrastructural and behavioral aspects of road safety, with a strong emphasis on community involvement and education.

## Region 4 - Virtual, October 1st 2024, 11:30am-1:30pm

### Virtual Workshop Attendees

| Name                | Organization                                        |
|---------------------|-----------------------------------------------------|
| Heather Paddock     | CDOT Reg. 4                                         |
| John Firouzi        | Town of Erie                                        |
| Sanjiv Gupta        | CDOT HQ                                             |
| San Lee             | CDOT HQ                                             |
| Miguel Aguilar      | Town of Erie                                        |
| Melodie Clayton     | CDOT Project Team                                   |
| Gabrielle Gamily    | CDOT Project Team                                   |
| Jennifer Kirkland   | Colorado PUC                                        |
| Matt Muir           | Coalition 4 Cyclists Boulder County                 |
| Candace Payne       | East Central Cog, Stratton                          |
| Michael Koslow      | City of Boulder                                     |
| Jeff Bailey         | Town of Estes Park                                  |
| Alexandra Phillips  | Boulder County Transportation Planning Division     |
| Katrina Klobberdanz | CDOT Region 4 Traffic                               |
| Karly Andrus        | Northeast Transportation Connections - NETC         |
| Kimberly Baker      | Larimer County Department of Health and Environment |
| Cammie Edson        | City of Longmont                                    |
| David Swenka        | CDOT HQ Traffic                                     |
| Major Brian Lyons   | CSP                                                 |
| Glen Davis          | Highway Safety Office                               |
| Alex Evonitz        | Town of Wellington                                  |
| Sheryl Beckman      | Stolfus Project Team                                |
| Dylan DS            | City of Longmont                                    |
| Logan               | Department of Revenue                               |



| Name             | Organization         |
|------------------|----------------------|
| Matt Brown       | Stolfus Project Team |
| Brendan Sullivan | Stolfus Project Team |
| Kara Peach       | VHB Project Team     |
| Eric Tang        | VHB Project Team     |

## Key Takeaways: Region 4 Virtual Workshop

Based on the collective feedback received, the following are key takeaways from the Region 4 virtual workshop.

### 1. Historical and Structural Inequities:

- » **Disinvestment in Communities:** Historically poor investment in infrastructure, especially in disproportionately impacted and lower-income communities, has led to unsafe road conditions.
- » **Gentrification and Infrastructure:** Changing community dynamics through gentrification impacts the quality of infrastructure.
- » **Lack of Community Engagement:** Insufficient outreach from past crashes result in a disconnect between planning and the needs of affected communities.
- » **Language and Accessibility Barriers:** Language access issues and insufficient outreach prevent full community participation in safety decisions.

### 2. Mismatch in Planning and Priorities:

- » **Disconnection Between Planning and Safety:** Misalignment of priorities between land use development, transportation safety, and traffic engineering, result in inadequate infrastructure for VRUs.
- » **Unreported Crashes and Data Issues:** Crashes are under-reported, particularly in marginalized communities, making data less reliable for informed decision-making.

### 3. Intersection and Roadway Design:

- » **Intersection-related Crashes:** Complexity of intersections, unclear traffic control, speed management, and signage overload contribute to crashes.
- » **Roadway Departures:** Speed-related crashes on rural roads with inadequate design and maintenance.
- » **Multimodal Safety:** Insufficient protection for pedestrians, bicyclists, and other VRUs, with a focus needed on prioritizing their safety.

### 4. Risky Behaviors and Driving Culture:

- » **Distracted Driving:** Normalization of distractions such as mobile phones, in-car technology, and multitasking while driving.
- » **Impaired and Aggressive Driving:** Alcohol, drugs, and aggressive behavior such as road rage contribute to crashes, with inadequate enforcement and penalties.
- » **Perception of Invincibility:** A prevalent attitude among drivers that crashes won't happen to them, leading to risky decisions.
- » **Vehicle Design and Speed:** Cars designed for high speed and technology that fosters distractions exacerbate crash risk and an over reliance on technology.

## 5. Education and Enforcement Gaps:

- » **Inadequate Driver Education:** Lack of ongoing driver education and re-certification, particularly for older populations, contributes to poor driving behaviors.
- » **Lack of Enforcement:** Minimal enforcement of laws around seatbelt use, speeding, and distracted driving.
- » **Equitable Education and Messaging:** There is a need for better outreach and culturally sensitive safety messaging in diverse communities.

## 6. Safety Culture and Organizational Challenges:

- » **Need for Policy and Infrastructure Improvements:** Policy changes and investments in infrastructure are essential for improving safety, especially in historically underserved communities.
- » **Safety Culture Within Organizations:** It is important to instill safety-first values within agencies. Vision Zero initiatives, for example, can help drive change.
- » **Community Empowerment and Engagement:** The desire to empower communities can help foster a culture of safety and trust.

## Region 1 - Virtual, October 2nd 2024, 11:00am-1:00pm

### Virtual Workshop Attendees

| Name              | Organization                                                |
|-------------------|-------------------------------------------------------------|
| Bryce Hammerton   | City and County of Broomfield                               |
| San Lee           | CDOT HQ Traffic                                             |
| Melodie Clayton   | CDOT Project Team                                           |
| Gabrielle Gamily  | CDOT Project Team                                           |
| Shawn Smith       | CDOT Region 1 Maintenance                                   |
| Patrice LeBlanc   | Peak to Peak Chamber of Commerce                            |
| Kent Moorman      | City of Thornton                                            |
| Marc Ambrosi      | City and County of Broomfield                               |
| Mikey Guanipa     | CDOT HQ                                                     |
| Sanjiv Gupta      | CDOT                                                        |
| David Swenka      | CDOT                                                        |
| Dr. Scott Branney | Common Spirit Health and the Colorado Whole Blood Coalition |
| Steph Piperino    | City of Golden                                              |
| Kelly Van Bruggen | City of Arvada                                              |
| Allison Rosenthal | CDPS                                                        |
| Andy Stratton     | CDOT R1                                                     |
| Alazar Tesfay     | CDOT R1                                                     |
| Adam Spiker       | CDOT                                                        |
| Emily Kleinfelter | City of Littleton                                           |
| Eric Stein        | City and County of Denver                                   |

| Name               | Organization                       |
|--------------------|------------------------------------|
| Hector Guanipa     | CDOT                               |
| Hope Hunt          | N/A                                |
| Juilang Liu        | N/A                                |
| Jen Bartlett       | City and County of Denver DOTI     |
| Joellen Meyer      | CDOT Financial                     |
| Rita Rochelle      | CDPS                               |
| Mitch Ries         | City and County of Denver DOTI     |
| Sharon Cunningham  | Douglas County                     |
| S. Streisfeld      | N/A                                |
| Mark Stacks        | Douglas County Public Works        |
| Dan Roussin        | CDOT                               |
| Kevin Rangel       | OV Consulting                      |
| Lisa Streisfeld    | CDOT R1                            |
| Huiliang Liu       | City of Aurora                     |
| Reinaldo Maristany | CDOT Office of Innovative Mobility |
| Carrie Tremblatt   | CDOT                               |
| Erik Braaten       | DRCOG                              |
| Angie Drumm        | CDOT R1                            |
| Sheryl Beckman     | Stolfus Project Team               |
| Matt Brown         | Stolfus Project Team               |
| Brendan Sullivan   | Stolfus Project Team               |
| Jonathan Kupfer    | VHB Project Team                   |

## Key Takeaways: Region 1 Virtual Workshop

Based on the collective feedback received, the following are key takeaways and common themes from the Region 1 virtual workshop.

### 1. Transportation Infrastructure Challenges

- » **Inadequate Design:** Many communities lack critical transportation infrastructure such as bike lanes, sidewalks, and safe crossings, which prioritize vehicle flow over safety. Poorly designed intersections and roadways contribute significantly to crash risks.
- » **Maintenance Issues:** Roadways are often poorly maintained, leading to unsafe conditions, especially in adverse weather. In rural areas, issues like inadequate shoulders and visibility further exacerbate the risk of roadway departures.

### 2. Vulnerability of Road Users

- » **Increased Exposure:** Disproportionately impacted communities have a higher proportion of VRUs (pedestrians, cyclists) who face significant risks due to unsafe infrastructure and lack of accessibility.

- » **Behavioral Risks:** Risky behaviors such as distracted driving, speeding, and impaired driving increase the likelihood of crashes, particularly at intersections where pedestrian interactions are frequent.

### 3. Socioeconomic and Cultural Influences

- » **Cultural Norms:** A culture that normalizes risky behaviors (e.g., speeding, distracted driving) contributes to unsafe driving practices. Post-COVID attitudes have shifted towards individualism, impacting community safety perceptions.
- » **Economic Pressures:** Socioeconomic conditions drive individuals to make risky decisions, such as rushing to catch public transit and not using crosswalks, or commuting longer distances due to job demands and multiple jobs.

### 4. Education and Awareness

- » **Lack of Education:** There is an agreed upon need for educational initiatives aimed at drivers and pedestrians, particularly among youth. Programs focusing on safer driving practices and awareness of road rules can significantly improve safety.
- » **Community Engagement:** Engaging local communities through programs and coalitions that emphasize safety can foster a culture of accountability and encourage safer behaviors among residents.

### 5. Policy and Enforcement

- » **Need for Stronger Policies:** Effective traffic management policies and enforcement are necessary to address unsafe driving behaviors and improve roadway design. This includes better signage, speed management practices, and the implementation of technology for monitoring and enforcement.
- » **Collaborative Efforts:** Partnerships between local governments, community organizations, and transportation agencies are essential to implement comprehensive safety strategies and address systemic issues.

### 6. Innovative Solutions and Community Programs

- » **Youth Programs:** Initiatives targeting young people can cultivate a safety culture from an early age, involving them in community safety efforts and peer education.
- » **Workplace Initiatives:** Organizations can improve safety by implementing advanced driving courses, promoting carpooling, and encouraging alternative modes of transportation to reduce exposure and risk.

The feedback highlights infrastructure inadequacies, behavioral risks, socioeconomic factors, and the need for enhanced education and community engagement to address the over-representation of Disproportionately Impacted Communities in traffic fatalities and serious injuries. Collaborative efforts, policy improvements, and innovative community programs are essential to fostering a culture of safety and reducing traffic-related risks statewide.



## Region 3 - Virtual, October 14th 2024, 1:00-3:00pm

### Virtual Workshop Attendees

| Name                | Organization         |
|---------------------|----------------------|
| Jason Smith         | CDOT R3              |
| Tuesday Black       | CDOT                 |
| Greg Hansen         | Town of Silverthorne |
| Diane Finley        | Pueblo               |
| Christopher Montoya | N/A                  |
| Mark                | CDOT                 |
| Gabrielle Gamily    | CDOT Project Team    |
| Melodie Clayton     | CDOT Project Team    |
| Rachel Peterson     | Grand Valley MPO     |
| Dana Brosig         | Grand Valley MPO     |
| San Lee             | CDOT                 |
| Sanjiv Gupta        | CDOT                 |
| Jrapp               | N/A                  |
| Angie               | CDOT                 |
| Matt Brown          | Stolfus Project Team |
| Connor Klassen      | VHB Project Team     |
| Eric Tang           | VHB Project Team     |
| Evan Haugh          | VHB Project Team     |

### Key Takeaways: Region 3 Virtual Workshop

Based on the collective feedback received, the following are key takeaways and common themes from the Region 3 virtual workshop.

#### 1. Infrastructure and Accessibility

- » **Lack of Investment:** Issues like inadequate sidewalks and lighting in unincorporated areas lead to safety concerns, especially for VRUs..
- » **Distance to Services:** Many community members live far from essential services, increasing the reliance on vehicles and exposing them to safety risks.

#### 2. Education and Awareness

- » **Disparities in Driver Education:** Lack of public K-12 driver education and high costs of private courses limit access, particularly for lower-income students.
- » **Low Awareness of Laws:** There is a gap in knowledge regarding new or changing traffic laws, contributing to unsafe driving behaviors.
- » **Advocacy Gaps:** A lack of advocacy in diverse communities leads to insufficient focus on safety needs.

### 3. Behavioral Factors in Crashes

- » **Distracted and Aggressive Driving:** Behavioral issues, such as speeding, driving under the influence, and aggressive driving, are contributors to crashes, particularly in rural areas.
- » **Cultural Norms:** Perceptions that risky behaviors are acceptable or unlikely to result in consequences contribute to ongoing safety issues.

### 4. Crash Patterns and Contributing Factors

- » **Intersection Safety:** High volumes of traffic and cognitive overload at intersections can lead to serious crashes, especially for unfamiliar drivers and VRUs.
- » **Rural Road Risks:** Factors such as roadway conditions, fatigue, wildlife, and high speeds contribute to rural crash statistics, especially when rural areas lack safety infrastructure like shoulders.

### 5. Solutions and Initiatives

- » **Enhancing Safety Culture:** Strategies include promoting open discussions about mistakes, establishing clear safety expectations, and engaging in community education initiatives.
- » **Infrastructure Improvements:** Recommendations for increased enforcement of traffic laws, and ongoing educational programs to raise awareness about safety practices.

### 6. Community Engagement and Partnerships

- » **Collaboration:** There is a need to increase collaboration and partnerships with various organizations, including schools and AARP, to foster a community-wide approach to safety.
- » **Sustaining Momentum:** There was a suggestion to conduct regular meetings and competitions among schools or industries to promote ongoing attention to road safety.

These themes highlight critical areas for improvement and the need for comprehensive approaches to enhance safety in the communities discussed.



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# Appendix E

# Virtual Engagement

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# Virtual Engagement Platform Comments Overview

The virtual engagement platform was live from July to December 2024 and received 286 stakeholder comments. It provided an opportunity for individuals to share safety concerns statewide - either in place of attending workshops or to offer additional input afterward.

Most comments were site-specific and have been organized by region, county, and Safe System Approach element. The majority came from Colorado Department of Transportation (CDOT) Regions 3 and 4, with fewer from Regions 2 and 5.

- » **Region 1:** Comments focused on intersection safety and roadway maintenance, especially to protect Vulnerable Road Users (VRUs).
- » **Region 2:** Input included intersection safety, drainage issues, and VRU considerations.
- » **Region 3:** Common concerns included speeding and a lack of sidewalk and crosswalk connectivity.
- » **Region 4:** Stakeholders cited speeding and infrastructure vulnerabilities related to weather.
- » **Region 5:** Feedback centered on Highway 550's design, particularly its safety for trucks and VRUs.

## Data

Safety Comments by County






| County    | Number of Comments |
|-----------|--------------------|
| Adams     | 3                  |
| Arapahoe  | 1                  |
| Boulder   | 18                 |
| Chaffee   | 1                  |
| Denver    | 4                  |
| Douglas   | 27                 |
| Eagle     | 129                |
| El Paso   | 3                  |
| Jefferson | 8                  |
| La Plata  | 1                  |
| Lincoln   | 1                  |
| Pueblo    | 1                  |
| Routt     | 5                  |
| Teller    | 1                  |
| Weld      | 84                 |
| Total     | 287                |

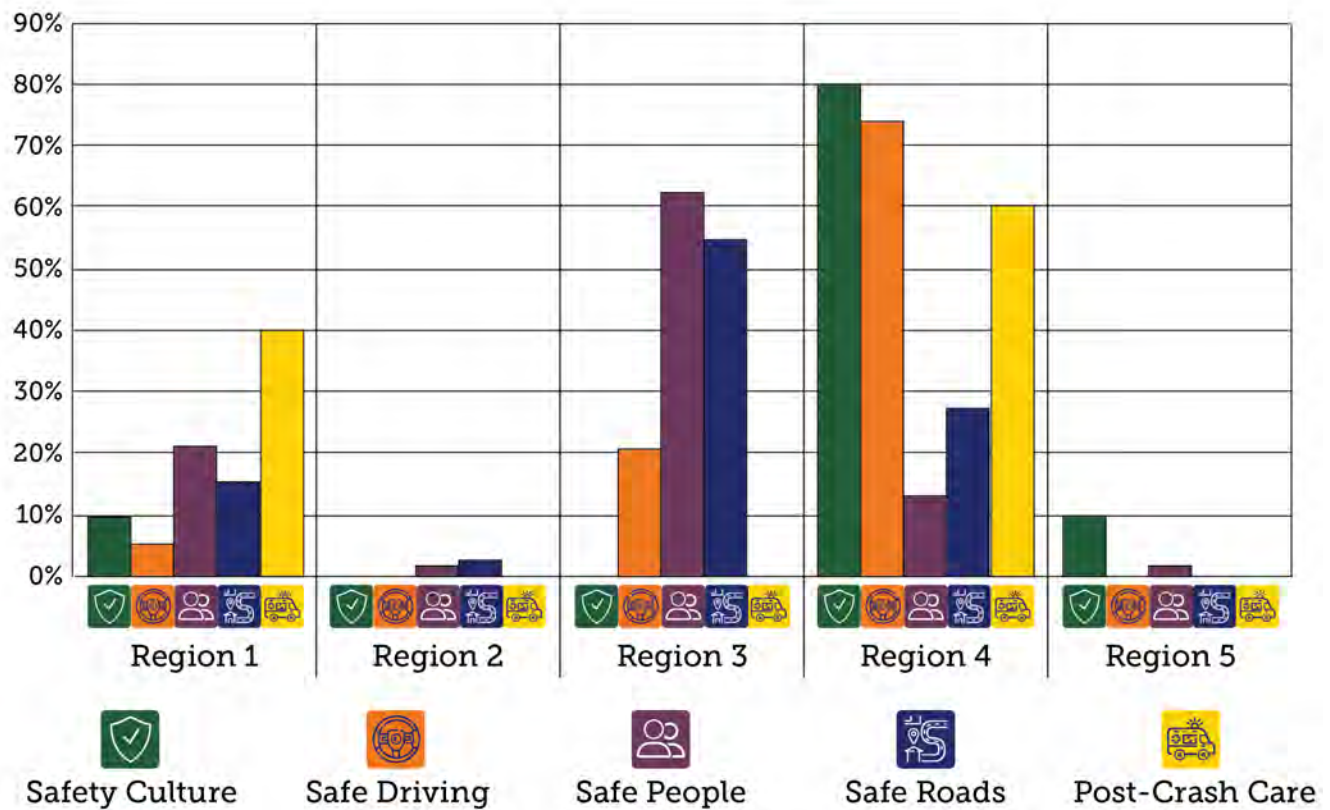
Safety Comments by Region

| Region | Number of Comments |
|--------|--------------------|
| 1      | 43                 |
| 2      | 5                  |
| 3      | 134                |
| 4      | 103                |
| 5      | 2                  |
| Total  | 287                |



### Safety Comments by Safe System Approach and Region

| Region |  Safety Culture |  Safe Driving |  Safe People |  Safe Roads |  Post-Crash Care | Total |
|--------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------|
| 1      | 1                                                                                                | 3                                                                                              | 13                                                                                            | 24                                                                                            | 2                                                                                                   | 43    |
| 2      | 0                                                                                                | 0                                                                                              | 1                                                                                             | 4                                                                                             | 0                                                                                                   | 5     |
| 3      | 0                                                                                                | 12                                                                                             | 38                                                                                            | 84                                                                                            | 0                                                                                                   | 134   |
| 4      | 8                                                                                                | 42                                                                                             | 8                                                                                             | 42                                                                                            | 3                                                                                                   | 103   |
| 5      | 1                                                                                                | 0                                                                                              | 1                                                                                             | 0                                                                                             | 0                                                                                                   | 2     |
| Total  | 10                                                                                               | 57                                                                                             | 61                                                                                            | 154                                                                                           | 5                                                                                                   | 287   |



### Regions by Safe System Approach Concern

## Virtual Engagement Public Comments

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                 | Approx. Comment Location                                  |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 319 | Hwy 36 and Mall Rd is a difficult intersection for traffic turning left from Mall Rd, especially during summer traffic. Traffic turning left can back up all southbound traffic on Mall Rd.                                                                                                                                                                             | 1907 Mall Road, Estes Park, Colorado 80517                |
| 318 | Hwy 36 between Mall Rd and Pole Hill Rd has many accidents and slide-offs early during snowfall. This stretch gets very icy before most other roads in the area.<br>R Life, EPPD                                                                                                                                                                                        | 2864 North Saint Vrain Avenue, Estes Park, Colorado 80517 |
| 317 | Between MM 3-5 on Hwy 7 snow, ice, drifting, and blowing snow make this area hazardous and require CDOT plows during and after snow, especially during windy conditions.                                                                                                                                                                                                | 2720 South Saint Vrain Avenue, Estes Park, Colorado 80517 |
| 316 | Between MM 5-7 on Hwy 36 there is a long and intermittent deep rut that follows the centerline.<br>R Life, EPPD                                                                                                                                                                                                                                                         | 6777 US Route 36, Estes Park, Colorado 80517              |
| 315 | Fatality location.                                                                                                                                                                                                                                                                                                                                                      | 39882 County Road 33, Ault, Colorado 80610                |
| 313 | High percentage of left turns (Westbound CO60 to Southbound CR19). Consider adding left turn lane. Look at number of rear end crashes.                                                                                                                                                                                                                                  | 22965 County Road 19, Johnstown, Colorado 80534           |
| 312 | Another near miss! Truck missed the road and went into ditch! CDOT!!! LOOK AT THE TRAFFIC REPORTS, NEAR MISSED AND DEATHS!!! YOU DON'T SEE THE NEAR MISSES BUT THE OCCUPANTS AT THE HOUSE SEE IT, HEAR IT AND ARE AFFECTED. Waiting for the fence to be taken down again by another accident! PAY ATTENTION!!                                                           | 21031 Colorado Highway 392, Eaton, Colorado 80631         |
| 311 | Dark corner can't see turn whole on 392. No markers, no lights, no warnings! Truck went in ditch on NE corner. FIX THIS CORNER ITS SO BAD!!!                                                                                                                                                                                                                            | 21031 Colorado Highway 392, Eaton, Colorado 80631         |
| 310 | Intersection of US285 & SHW114. Built in 1960's this junction has 45 conflict points, according to 2022 study this could be reduced to 8 conflict points with a roundabout. Current banked curve also promotes speeding.                                                                                                                                                | 630 Pitkin Avenue, Saguache, Colorado 81149               |
| 309 | Regarding the loud traffic. Hwy 52 was here before the subdivision; we knew what we were getting when we moved in. Jake brakes...maybe a 30 second annoyance.<br><br>The speeding is a Fort Lupton issue, I believe they annexed this part of H52, since it is in the city.<br><br>What this road NEEDS is a turn lane for westbound traffic entering into subdivision. | 166 South Trail Blazer Road, Fort Lupton, Colorado 80621  |
| 308 | Deadly intersection. Pedestrian recently killed and vehicular close encounter daily                                                                                                                                                                                                                                                                                     | 211 South Purman Avenue, Fort Lupton, Colorado 80621      |
| 307 | We have trouble with entering and exiting our neighborhood. Cars are going way too fast. Desperately need a turn lane. Almost get rear ended daily. It is a very dangerous intersection.                                                                                                                                                                                | 1706 Virginia Drive, Fort Lupton, Colorado 80621          |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                      | Approx. Comment Location                                 |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 306 | This intersection needs better lighting and a better crosswalk.                                                                                                                                                                                                                                                                                                                                                                              | 211 South Purman Avenue, Fort Lupton, Colorado 80621     |
| 305 | Traffic exceeds 55 mph on a regular daily basis. Big rigs use Jake brakes on a daily basis. I have never seen police using radar on the stretch of hwy 52 from Purman to WCR 29 1/2.                                                                                                                                                                                                                                                         | 116 South Trail Blazer Road, Fort Lupton, Colorado 80621 |
| 304 | We need an overhead message sign before exit 167. There is one at mile marker 169, but when the Dowd Junction canyon gets backed up, there is no way to avoid it at that point unless you try to illegally reverse down the 168 exit (which I've seen people do). Putting an alert sign up earlier would give people exit 167 and 168 to get off I-70 early and take an alternate route or spend some time in town while the roads clear up. | 217 West Beaver Creek Boulevard, Avon, Colorado 81620    |
| 303 | Continuous speeding and semis going to fast our houses shake windows shake noise is ridiculous! Jake brakes STILL being used despite signage up and down this highway! The best night of sleep has been when the most recent snowstorm came through! NO SEMIS traffic was actually traveling the speed limit or below. Amazing! Move these sand trucks and fuel trucks OFF this residential area already!!!                                  | Colorado Highway 52, Fort Lupton, Colorado 80621         |
| 301 | 1 am, 2 am speeding semis. Liberty Sand trucks or Sandbox trucks. My entire house is shaking because of the rate of speed and weight of these semis are traveling. Get them a different route!! It is absolutely dangerous at the rate of speed they travel through a residential area!!!                                                                                                                                                    | 111 Appel Court, Fort Lupton, Colorado 80621             |
| 300 | Another truck in my property because he couldn't see the turn!<br>In 10 min two cars ran the stop sign heading north on CR 43.<br>The intersection is too dark and with the time change it's worse!                                                                                                                                                                                                                                          | 21031 Colorado Highway 392, Eaton, Colorado 80631        |
| 299 | It's so dark at the intersection with no reflectors or lights that a truck went in the ditch tonight and many drivers miss the turn.<br>There are no street lights, no reflectors and the stop sign on CR 43 heading south is half bent and has half working lights. The stop sign heading north is under sized and doesn't have flashing lights or doesn't work.<br>VERY DANGEROUS! Do something about it!!                                 | 21031 Colorado Highway 392, Eaton, Colorado 80631        |
| 298 | 3am. It's s residential area. Speeding semis. My house and our neighbors houses shake from this semi traffic daily!!!! Fix the problem.                                                                                                                                                                                                                                                                                                      | Colorado Highway 52, Fort Lupton, Colorado 80621         |
| 297 | The trucks are speeding from the east so they are using the jake brakes!! It seems I see police south of town on old 85 in the country but we cant get enforcement for speed and noise on 52!                                                                                                                                                                                                                                                | Colorado Highway 52, Fort Lupton, Colorado 80621         |
| 296 | It has been over a MONTH since residents met with This HWY coalition! We have had one death in this area since!!!! And yet NOTHING is being done about the speed in this residential area!!! The speed, the noise, the semis and their Jake brakes at 3am are a PROBLEM!                                                                                                                                                                     | Colorado Highway 52, Fort Lupton, Colorado 80621         |
| 295 | Cars racing thru our neighborhood all hours of the day and night. Also racing on 52 and all around us you can hear street racing over by the cemetery. And the Jake Braking on 52 is ridiculous!!                                                                                                                                                                                                                                            | 1774 Silverado Lane, Fort Lupton, Colorado 80621         |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Approx. Comment Location                          |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 294 | Frequent accidents and extreme speeding at the left-side exit from I-70 onto I-76                                                                                                                                                                                                                                                                                                                                                                                | Heartland Expressway, Arvada, Colorado 80640      |
| 293 | Across from Purman Avenue on 52 by the golf course there is a barbed wire that has been broken down for many years. Last week a young man walked on that side of the road and got caught in the barbed wire. It is weeds that are several feet high and hasn't been cut for years. Either the city or CDOT needs to address the fence and the weeds. The boy was cut badly on his ankles and legs                                                                | 1838 Silverado Lane, Fort Lupton, Colorado 80621  |
| 292 | The usual safety issue all residents have been begging for CDOT to fix: this should NOT be a high speed highway. It is a huge safety issue as well as a noise issue for residents!!! We need the speed reduced and we also need a noise barrier. Jake brakes and speeding semis and trucks are a huge problem!! Being woken up DAILY at 3 am because a semi is barreling down the road and your house is shaking shouldn't be the norm!                          | Colorado Highway 52, Fort Lupton, Colorado 80621  |
| 291 | Speeding semis and excessive noise from them!!! Our entire house shakes at 4 am! Loud jake brakes! Noise and speed mitigating is needed!                                                                                                                                                                                                                                                                                                                         | Colorado Highway 52, Fort Lupton, Colorado 80621  |
| 290 | This intersection needs improvement. Multiple accidents and near misses! Lanes not large enough for semis to turn,                                                                                                                                                                                                                                                                                                                                               | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 289 | Excessive speeds on this road. This is mainly a residential area! There is a golf course across the road. Posted 65mph or 55mph is unacceptable. It's should be max 45mph. We just had a pedestrian killed at the intersection! It isn't the first along this stretch of road. How many people need to lose their lives or be injured before anyone does anything to fix this speed limit, to address maybe this SHOULD NOT BE a high speed semi highway. ???!!! | Colorado Highway 52, Fort Lupton, Colorado 80621  |
| 288 | Speeding semis since 4 am. Speeding cars and trucks. Excessive noise from traffic                                                                                                                                                                                                                                                                                                                                                                                | 106 Corvette Circle, Fort Lupton, Colorado 80621  |
| 287 | Can you do anything about the trucks using the jake brake?? Maybe patrol highway 52 for speed and jake brake.....                                                                                                                                                                                                                                                                                                                                                | 1840 Silverado Lane, Fort Lupton, Colorado 80621  |
| 286 | ANOTHER person killed at our intersection on highway 52 in fort lupton!!! How many does it take to lower the speed from 55mph IN the city limits???                                                                                                                                                                                                                                                                                                              | 1838 Silverado Lane, Fort Lupton, Colorado 80621  |
| 285 | People are making dangerous left turns into the north entrance of 7-11. There is not a turn lane in the westbound lanes and there is not an opening in the eastbound lanes for a car to get through. Children have been nearly hit as cars try to sneak between the other cars to get through.                                                                                                                                                                   | 210 1st Avenue, La Salle, Colorado 80645          |
| 284 | Multiple accidents, multiple near misses, flooding of properties, culverts under sized, 19th deadliest intersection in the Region                                                                                                                                                                                                                                                                                                                                | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 283 | Hwy 24 and Hwy 67, busy state highway intersection. Considerable recreational traffic and tourist traffic. Four lanes funnel down to 2 lanes. Frequent accidents and incidents in this intersection.                                                                                                                                                                                                                                                             | 10 Buffalo Court, Divide, Colorado 80814          |



| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Approx. Comment Location                          |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 281 | <p>The area is lacking ANY funding to provide adequate safety!</p> <p>The intersection needs street lights, functioning blinking stop signs in both directions on CR 43, guardrail so the houses or fence don't continue to get hit and overall attention!</p> <p>Are your roadways lacking updated infrastructure? Yes, no shoulder, no turn or acceleration lanes, pot holes in the NE corner consistently and CDOT just lays crushed asphalt in the holes but within days there are pot holes again. Large dip on the north side of 392 on CR 43 from CDOT installing a culvert in 2018. This unexpected dip causes vehicles to break after going through the intersection which results in near misses, loss of a tire on a vehicle and people lose loads off their pickups. Semi trucks traveling west bound on 392 turning north onto CR 43 have to make a wide turn forcing any traffic sitting at the stop light to back up and they have to stop on a 55mph highway to wait for vehicles to move to make the turn.</p> <p>Is your area in need of improved traffic incident management to improve post-crash response? YES!</p> <p>People don't stop at the stop sign and cars get broadsided.</p> <p>There is a pump house on the SE corner that blocks vision of oncoming vehicles on 392.</p> <p>The stop sign on the SE corner doesn't blink and with no lights in the intersection people can't see!</p> <p>Do you feel that your transportation system safe for users of all modes (i.e., vehicles, motorcycle, cyclists, pedestrians)? No</p> <p>Do you notice more incidents in your area than other areas? Yes 19th deadliest intersection in the Region and that's not counting non-deadly accidents and near misses! And there is a house on that corner that gets hit!</p> <p>Are facilities in your area responsive when there are incidents? State patrol responded to every accident. CDOT does nothing regarding the floods in this intersection because their culverts are too small to handle the water!</p> <p>This corner floods in heavy rain storms and CDOTs ditch floods the houses on the NE corner. CDOT doesn't have the funds to fix this corner but spends millions on other transit projects. CDOT needs to look at the country roads not just the major highways.</p> | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 280 | Can NOTHING be done about the speed limits?! Semis fly up and down this hwy with ZERO regard for the speed limit! This is a problem 24/7! There was just an auto pedestrian accident two nights ago! These semis go 65 mph using Jake brakes when going down the hill. What is it going to take for the speed limit to be dropped and for some assistance with noise modification and safety modifications for this residential area?!                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Colorado Highway 52, Fort Lupton, Colorado 80621  |
| 278 | 19th deadliest intersection in th region. No sight line. Road too narrow for trucks to make a safe turn. Road markers destroyed. No turn or merge lane. If a truck cannot make the turn the first time it locks up the entire highway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 277 | Multiple accidents and some deadly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 21031 Colorado Highway 392, Eaton, Colorado 80631 |

| ID  | Comment                                                                                              | Approx. Comment Location                          |
|-----|------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 276 | Fatal intersection flooding of properties                                                            | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 275 | Flooding of properties undersized culverts                                                           | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 274 | Flooding of properties                                                                               | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 273 | Undersized culverts                                                                                  | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 272 | Flooding of properties                                                                               | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 271 | Flooding of properties                                                                               | 33062 County Road 43, Eaton, Colorado 80631       |
| 270 | Flooding of properties undersized converts poor drainage                                             | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 269 | Flooding of properties, fatal intersections                                                          | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 268 | Undersized culverts & flooding of properties                                                         | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 267 | Fatal accidents and flooding                                                                         | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 266 | Under sized culvert                                                                                  | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 265 | Flooding of properties                                                                               | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 264 | Flooding of properties, Multiple accidents, near hit misses, culvert under sized, fatal intersection | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 263 | Dangerous intersection and floods!                                                                   | 21031 Colorado Highway 392, Eaton, Colorado 80631 |
| 262 | Too many accidents. Near miss accidents. Flood area                                                  | 21031 Colorado Highway 392, Eaton, Colorado 80631 |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Approx. Comment Location                               |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 260 | Accident this evening at approx 9:15pm!!! At Purman and 52! It was a big Accident. 52 was closed injured drivers! When is someone going to do something about the speed limit?!!! Not only being enforced but lowering it!                                                                                                                                                                                                                                                                           | Colorado Highway 52, Fort Lupton, Colorado 80621       |
| 259 | This intersection is extremely dangerous. I drive by this intersection often. I have seen it flooded from lack of drainage of water coming from the east and north. I also have seen near misses and obvious damage to fencing on the property on the north East Corner of this intersection                                                                                                                                                                                                         | 21031 Colorado Highway 392, Eaton, Colorado 80631      |
| 258 | Multiple accidents and flooding issues that is a CDOT issue. Funding is needed.                                                                                                                                                                                                                                                                                                                                                                                                                      | 33076 Hwy 52, Eaton, Colorado 80631                    |
| 255 | Excessive speed and noise from semis! If semis are going to be speeding up and down this road at all house noise mitigation needs to be implemented.                                                                                                                                                                                                                                                                                                                                                 | 105 Bernard Court, Fort Lupton, Colorado 80621         |
| 254 | Excessive noise and excessive speeding.                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Colorado Highway 52, Fort Lupton, Colorado 80621       |
| 253 | Difficulty turning onto 52. Semis traveling at excessive speeds.                                                                                                                                                                                                                                                                                                                                                                                                                                     | Colorado Highway 52, Fort Lupton, Colorado 80621       |
| 252 | Speed adjustment needed as well as noise mitigation! This is a residential RURAL area! Why do we have I-70 in our backyard?!                                                                                                                                                                                                                                                                                                                                                                         | Colorado Highway 52, Fort Lupton, Colorado 80621       |
| 251 | Excessive speed and semis using their Jake brakes at 3 am! Of semis are continue to be allowed to disregard speed and other laws a noise mitigation plan needs to be considered. Build a hill with trees between homes and 52. But do something!                                                                                                                                                                                                                                                     | 1764 Silverado Lane, Fort Lupton, Colorado 80621       |
| 250 | Speeding Semi rig. One after the other tonight! They need another route already. This is a residential area and a recreational area! We cannot even relax in our front yard we hear them in the front yard!                                                                                                                                                                                                                                                                                          | Colorado Highway 52, Fort Lupton, Colorado 80621       |
| 249 | Speeding vehicles and semis making it difficult to turn safely                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14956 Colorado Highway 52, Fort Lupton, Colorado 80621 |
| 248 | Very dangerous intersection, many deaths, many accidents and near misses. Water/flooding problems created from CDOT ROW. Three homes flooded this year.                                                                                                                                                                                                                                                                                                                                              | 20901 Colorado Highway 392, Eaton, Colorado 80631      |
| 244 | I disagree with everyone saying we need to slow this street down. The street is the bottleneck to every commute and connecting communities.<br><br>I agree that it could be dangerous, but the reason for that is because people do not use crosswalks and tourists just walk aimlessly around. They are usually rubber necking and not paying attention.<br><br>The MOST ideal solution is to built a street AROUND Main St. for those passing through, not to slow down a bottleneck even further. | 789 Main Street, Minturn, Colorado 81645               |

| ID  | Comment                                                                                                                                                                                                                                                                                                 | Approx. Comment Location                                 |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 243 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 10301 East Ken Pratt Boulevard, Longmont, Colorado 80501 |
| 233 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 611 South Pratt Parkway, Longmont, Colorado 80501        |
| 232 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 1980 East Ken Pratt Boulevard, Longmont, Colorado 80501  |
| 231 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 9499 Ute Highway, Longmont, Colorado 80503               |
| 230 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 903 Main Street, Longmont, Colorado 80501                |
| 229 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 1250 Main Street, Longmont, Colorado 80501               |
| 228 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 1650 Main Street, Longmont, Colorado 80501               |
| 227 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 1520 South Hover Street, Longmont, Colorado 80501        |
| 226 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 403 East Ken Pratt Boulevard, Longmont, Colorado 80501   |
| 225 | This area is one of Longmont's worst High Injury Network locations with multiple VRU indicators. Improved safety countermeasures are needed.                                                                                                                                                            | 2445 Main Street, Longmont, Colorado 80501               |
| 224 | There is a huge pot hole on 52 as you leave Appel Farms subdivision, pls help                                                                                                                                                                                                                           | 992 Sable Boulevard, Aurora, Colorado 80011              |
| 223 | Excessive speed and noise from semis and automobiles! Both of these issues need to be addressed.                                                                                                                                                                                                        | 112 Appel Court, Fort Lupton, Colorado 80621             |
| 192 | With my office overlooking this section of road, I see dangerous activity here multiple times a day. People riding bikes or scooters in high speed traffic. People riding these against the flow of traffic. The bus stops here are also nearly always overcrowded and proximate to high speed traffic. | 1319 Federal Boulevard, Denver, Colorado 80204           |



| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Approx. Comment Location                                |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 191 | I commute through here multiple days a week and this intersection scares me sometimes. The wide turn radii and lack visibility makes cycling here very scary. If you're trying to get to CDOT headquarters from 13th here they seem to want you to take the longest, most inconvenient route (multiuse path).                                                                                                                                                                                       | 2801 West Howard Place, Denver, Colorado 80204          |
| 190 | This intersection terrifies me. I bike commute on this road almost daily and I scarcely go a week without a close call. The protected bike lanes and red arrows are nice but they don't stop cars from turning red onto Speer, even with the green cyclist light. I think an engineering solution should be implemented here to protect cyclists and pedestrians, both at this intersection and this corridor more generally - the protected bike lane certainly needs to be extended east on 13th. | 519 West 13th Avenue, Denver, Colorado 80204            |
| 189 | This intersection is very risky. It lacks safe places for pedestrians to cross yet is a location many in the community walk to and through. Cars travel at very high speeds and make turns at high speeds, putting cyclists and pedestrians at risk. The bus stop here is very uncomfortable thanks to the highway speeds car speed past at.                                                                                                                                                        | 3055 Dartmouth Avenue, Boulder, Colorado 80305          |
| 188 | This road needs work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 33655 Pamplona Pt, Yoder, Colorado 80864                |
| 187 | Road needs work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Colorado Springs, Colorado 80928                        |
| 186 | This road needs work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1303 Catalpa Street, Pueblo, Colorado 81001             |
| 185 | Minturn encourages residents to register golf carts and snowmobiles to get around town, but 24 divides town in half preventing access to popular trail access points and town parks. Allow registered snowmobile/golf cart access along a designated stretch where no alternate exists (Little Beach to Minturn rd for example)                                                                                                                                                                     | 302 Main Street, Minturn, Colorado 81645                |
| 184 | This has become a dangerous intersection with the increase flow of traffic and now 2 schools on opposite sides of the highway with no safe route between them. We would like to see a safe intersection and pedestrian crossing in the immediate future.                                                                                                                                                                                                                                            | US Route 40, Steamboat Springs, Colorado 80487          |
| 183 | Accidents at this intersection are common. Eastbound traffic is just coming down to a 55 MPH limit from 65, and just east of the intersection is a turn in-turn out for King Soopers.                                                                                                                                                                                                                                                                                                               | 1112 71st Avenue, Greeley, Colorado 80634               |
| 182 | Traffic volumes on US 6 in Gypsum are the highest on US 6 in the county. Recent traffic study shows the need for 2 through lanes in each direction. This traffic goes east into the Town of Eagle creating massive congestion. The 2009 shelved project from CDOT for an Interchange at the airport would be a huge benefit to the system.                                                                                                                                                          | 1000 White River Dr, Eagle, Colorado 81637              |
| 181 | Impaired driving feels like it is a problem in the Gypsum area. On both I-70 and US 6 east and west of Gypsum. Recent fatality in Gypsum on US 6 at the School side Roundabout.                                                                                                                                                                                                                                                                                                                     | Gerald R. Ford Memorial Highway, Gypsum, Colorado 81632 |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Approx. Comment Location                         |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 180 | Hard to see when pulling out onto Main Street at peak times especially. Feels like you're gambling that cars aren't coming.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 202 Main Street, Minturn, Colorado 81645         |
| 179 | As a mom of two it's scary crossing Main Street with kids because you don't know if people commuting through town are going to stop or blow right by the crosswalk.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 202 Main Street, Minturn, Colorado 81645         |
| 178 | As a resident living in downtown Minturn I frequently walk with my infant in a stroller, the amount of times I have been in crosswalk and have not had cars slow down, or even accelerate as they come around the corner by Magustos is too many to count. 9/10 I run across the highway with my baby as I am concerned about being hit.<br><br>We need more flashing light crosswalks and some other solutions to slowing traffic down. Its dangerous and feels like a matter of time till someone is injured or worse.                                                                                                                                                                                                 | 172 Main Street, Minturn, Colorado 81645         |
| 177 | Highway 550 is not safe for cyclists, despite the painted bike lane. In practice, this painted line only encourages higher speeds for cars. In addition, there is a lack of safe crossing options for pedestrians.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | J/P Tire, 1776 Main Ave, Durango, Colorado 81301 |
| 176 | We need to slow HWY 24 speeds through the town of Minturn - let's look to Europe and have bump outs or roundabouts - this will make drivers slow down. Drivers don't even slow down when we are in cross walks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 293 Boulder Street, Minturn, Colorado 81645      |
| 175 | I live on 261 Main St. Two issues I would like to bring up are resident safety and noise concerns. I would say speeding is a problem but yeah that's a problem everywhere. Specifically here I worry about my family being hit by drivers that are not paying attention.<br><br>1. When getting in and out of my car I fear I will be hit by drivers speeding by who take no notice of pedestrians as well when loading my children there is very little room to maneuver and this feels dangerous.<br><br>2. Noise- truckers coming in or out of town using j brakes or down shift methods that are incredibly loud. Mostly though the noise is from motorcycles revving there engines while driving by local eatery's. | 262 Main Street, Minturn, Colorado 81645         |
| 174 | Recommend placing mirror on this corner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 101 Main Street, Minturn, Colorado 81645         |
| 173 | My home sits on Main St. The alarming, jarring noise of trucks utilizing J Breaks at all hours of the day & night frighten myself & my children on a daily basis now                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 342 Main Street, Minturn, Colorado 81645         |
| 172 | Hwy 24 / Main St in Minturn is VERY dangerous. We need more lighted crosswalks and at least one stop sign to slow down through traffic through this narrow downtown corridor. The speed limit should be lowered to 25 mph in the southern stretch of town and to 15 mph in the 100-500 blocks.                                                                                                                                                                                                                                                                                                                                                                                                                           | 292 Main Street, Minturn, Colorado 81645         |
| 171 | A crosswalk has not been allowed here by CDOT. For pedestrians and bikers, most of which are children & families utilizing the updated sidewalk, they must cross the highway here to get to the playground & bike park. Cars/trucks are going too fast to see the people waiting to cross and those that do slow down in order to allow safe crossings out themselves at risk to be rear-ended. There absolutely needs to be a crosswalk here with lights/etc                                                                                                                                                                                                                                                            | 751 Main Street, Minturn, Colorado 81645         |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Approx. Comment Location                       |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| 170 | Crossing the street (at the cross walk) to go to the school bus stop can be treacherous- cars are speeding, not looking and are not paying attention that it is a cross walk; this applies to cars in both directions                                                                                                                                                                                                                                                                                                                                                                             | 202 Main Street, Minturn, Colorado 81645       |
| 169 | There have been too many lives lost to suicide on the red cliff bridge, including several in 2024. Netting has been proven to save lives - CDOT needs to act NOW and install a system. <a href="https://www.goldengate.org/district/district-projects/suicide-deterrent-net/">https://www.goldengate.org/district/district-projects/suicide-deterrent-net/</a>                                                                                                                                                                                                                                    | 504-598 US Route 24, Red Cliff, Colorado 81649 |
| 168 | High use pedestrian crossing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 50 Toledo Avenue, Minturn, Colorado 81645      |
| 167 | Flashing light crosswalk needed here. We bike and walk to little beach park and the bike park daily and no cars stop. This is a major safety concern for all parents with children heading to the park on foot or by bike.                                                                                                                                                                                                                                                                                                                                                                        | 751 Main Street, Minturn, Colorado 81645       |
| 166 | A flashing light crosswalk and slower speed enforcement with sited trap cameras would be ideal. I walk my daughter to the bus stop daily and commuter travelers do not stop unless we are very close to the edge of the oncoming traffic. This is a heavy safety concern for not only myself but many other minturn residents.                                                                                                                                                                                                                                                                    | 156 Main Street, Minturn, Colorado 81645       |
| 165 | Crosswalk...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 102a Main Street, Minturn, Colorado 81645      |
| 164 | Allow the Town to construct overhanging signage and lighting (xmas lights crossing street, banners, etc) that indicate the heavy pedestrian and parking interface of the main street area.                                                                                                                                                                                                                                                                                                                                                                                                        | 122 Main Street, Minturn, Colorado 81645       |
| 163 | Bicyclists should feel comfortable using the entire road while in town amongst parking. Add indicators and infrastructure to show this.                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 232 Main Street, Minturn, Colorado 81645       |
| 162 | Allow a photo radar enforcement sign here at entrance to town.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 100 Main Street, Minturn, Colorado 81645       |
| 161 | In 1996, CPW, CDOT, and the State of CO completed a study looking at a rail to trail conversion for the entire stretch of the Tennessee pass line. There was even a MOU between the president of UP and Gov Romer. Shelved due to reasons no longer valid, CDOT should use it's legal right (sb37) to acquire railways in CO to acquire the Minturn - Leadville stretch and convert it into an alternate mode of transit for human powered travel, removing bicycle/vehicle conflicts on 24. This is a great time to re-approach UP as CDOT negotiates the long term lease for the Moffat Tunnel. | US Route 24, Minturn, Colorado 81649           |
| 160 | Over the past 10-15 years, Leadville has seen an increase in residents who drive every morning to the Vail valley. Combined with the opening of the Ski and Snowboard Academy's new campus in Minturn ~10 yrs ago, the amount of morning and afternoon traffic through Minturn has vastly increased. We need to show these people that they are traveling through a town full of kids, pets, and businesses each day and separate the town of Minturn stretch from the tennessee pass stretch past where there are not towns.                                                                     | US Route 24, Minturn, Colorado 81649           |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Approx. Comment Location                   |
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| 159 | Minturn is a perfect example of what has happened to small communities across Colorado. CDOT offices in Denver and Grand Junction designate the main streets of small towns as arterials and highways, and manage them in ways that is directly opposed to the benefit of the local community that in many cases, existed BEFORE the CDOT highway classification. There needs to be a change to the way roads are classified by CDOT and the state of Colorado in order to acknowledge that sometimes, vehicle and truck speeds are not the most important metric when the main streets of small communities are being discussed. Local towns should have more say in road design and management and programs should be created to foster local control. | 272 Main Street, Minturn, Colorado 81645   |
| 158 | This is an area that up until 4 years ago, would show a safe zero death statistic and no needed changes. Then 3 deaths happened in 3 years to pedestrians and bikers. We can't allow this same thing to happen in Minturn. Action is needed BEFORE we have an accident.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 39371 US Route 6, Avon, Colorado 81620     |
| 157 | The corridor through this area narrows significantly with no shoulder dropping off into the river. Running, biking, or walking this stretch with no sidewalk or protected lane is terrifying and almost no residents attempt it. Beyond lay the rec center, the ski and snowboard academy, and access to national forest trails. Could partner with the Forest Service to create a separated paved or crusher fines path off the highway similar to the US 82 access north east of Aspen leading a few miles up indy pass to the river and campground and residences along that road to separate users.                                                                                                                                                  | 1616 Main Street, Minturn, Colorado 81645  |
| 156 | This is one of the most popular summer and winter trailhead parking lots in Eagle county, right behind meadow mountain to the north. However it has only ~10 spots and people, kids, and pets are often left creating their own parking spaces on the highway next to speeding traffic. Engineer additional protected access to the trailhead, access across the road to the businesses, and improve the eco bus transit stop.                                                                                                                                                                                                                                                                                                                           | 23698 US Route 24, Minturn, Colorado 81645 |
| 155 | In general, the 24 to Leadville route through Minturn, over Battle Mountain and tenn passes is much less suitable than the 70 to 91 route which is better maintained and does not pass through any towns/main streets. How can we encourage this route?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 24747 US Route 24, Avon, Colorado 81645    |
| 154 | There is not currently a way for bicycle or pedestrian traffic to get from the popular Gore Valley eco trail on the north side of 24 to the extremely popular Meadow Mountain trail access and eco bus stops on the south side. The street in this area widens with multiple turn lanes and traffic speed increases accordingly. Need to engineer ways for people to cross this street.                                                                                                                                                                                                                                                                                                                                                                  | Line Shack, Minturn, Colorado 81645        |
| 153 | There are many comments about speed limit through town - but we also know that just changing the signs and adding a police officer are duct tape solutions to a bigger street design problem. Throughout the main street corridor, look into calming solutions such as alternating parking patterns (middle/diagonal), medians, curb extensions, and flashing down lighting or side lighting on key crossings. This is the only street access from one side of town to the other based on land restrictions, railroad, and river. Business patrons on sidewalks, school and commuter bus stops, preschool crossings, parallel parking, and multi modal traffic all mix in this area with fully loaded semi's traveling in excess of 25mph.               | 421 Main Street, Minturn, Colorado 81645   |



| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Approx. Comment Location                       |
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| 152 | This intersection will see highly increased bicycle traffic as the eco trail connection into dowd junction into minturn is finished. Local rental shops estimate as many as 100 e bike rentals per day go from Vail to Minturn, and many locals and tourists use this connection to get from main st minturn to dowd junction on the protected bike lane. Need to address the crossing and limited sight lines for bicycles (they will not use the current pedestrian focused bulb out crossing due to space and lane crossing design).                                                                                                                                                                                                                                                                                             | 101 Main Street, Minturn, Colorado 81645       |
| 151 | Similar to the south end of town, this area needs street design features to indicate that drivers are entering a community with multi-modal street users. A raised section with landscaped narrowing features before the S curve could be home to a town of minturn sign and do a much better job of slowing traffic before a busy crossing and main street area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 23682 US Route 24, Minturn, Colorado 81645     |
| 150 | This is the main entrance to the town of Minturn's only playground, the bike park, and the mini mile a child focused walking trail. It also is where people have to cross to get to concerts, the cemetery and events. There should at LEAST be a raised crossing and flashing indicators. This section of road is long and straight and people accelerate. It's terrifying to try to cross with a 5 and 1 yr old on bikes, walking, etc.                                                                                                                                                                                                                                                                                                                                                                                           | 791 Main Street, Minturn, Colorado 81645       |
| 149 | add raised sections of road and combined with landscaped traffic calming features to indicate that the leadville 500 has ended and you are entering a town. consider painted indicators and/or bumps (look at Iowa State University examples). Lowering the speed limit alone won't work, need to work on design features.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2084 US Route 24, Minturn, Colorado 81645      |
| 148 | Excessive speeding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 261 Main Street, Minturn, Colorado 81645       |
| 147 | High speeds along 10th St lead to numerous injuries because of the accidents along this section.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5141 West 10th Street, Greeley, Colorado 80634 |
| 146 | 1. Crosswalk Needed: At this turn-off on Ballpark Rd is to a highly used recreation area, park and trailhead, and is being used by cars, bikes and pedestrians. There needs to be a pedestrian cross walk here for safety. And it should be one of the ones that has lights that warn cars when it is in use.<br>This also means that speed limits need to be lowered coming into this high use, high density area of the Town of Minturn.<br>2. Starting at Ballpark Rd, Speeds should be lowered and signage needs to be added, including a watch your speed sign that uses radar to show a vehicle's speed. At this junction with the , vehicles are coming into town at speeds that are too fast. 25 MPH should start at this point based on density of homes, use of sidewalks and narrowness of highway and lack of shoulder. | 761 Main Street, Minturn, Colorado 81645       |
| 145 | We need reduced speeds as this is still a residential area. Maybe the 35 mph could be shifted farther towards Malloit so that cars slow down sooner. In addition, sidewalks all the way to Malloit Park road access would be helpful. If Belden is developed there will be an influx of children in our town and we need safe ways to travel on bikes and foot. As we stand, our little area has lots of kids riding bikes and walking to town or the bike park. We love our small town and want to be able to let our children run around it!                                                                                                                                                                                                                                                                                      | 1108 Main Street, Minturn, Colorado 81645      |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Approx. Comment Location                           |
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| 144 | Speed limit should be reduced to 25mph here for traffic going northbound towards I-70. (as well as southbound traffic)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1351 Main Street, Minturn, Colorado 81645          |
| 143 | Gradient/shoulder width/curve radius in this section where Hwy 24 climbs from the flats up to the Homestake turnoff are completely insufficient to be safe for our current traffic speeds and traffic volumes. This section is very dangerous year round and needs an overhaul to some kind of modern standard with wider shoulders for and lower curve radius. Conditions on Hwy 24 from Lake County to Eagle County are a social justice issue where the large number of Latino and lower income service workers commuting to Eagle County have to daily deal with more treacherous commutes than people elsewhere. It is also an embarrassment that a route touted as the Top of the Rockies Scenic Byway and used seasonally by thousands of cyclists for marquee Colorado events like Copper Triangle, Ride the Rockies, and the Courage Classic has segments like that are essentially just biker death locations waiting to happen. | US Route 24, Red Cliff, Colorado 81649             |
| 142 | Growth in Eagle and Lake County, and daily commuter worker traffic between the two, has reached a level where the number of slow vehicle pull-outs on the climbing lanes of both Battle Mountain and Tennessee Pass is completely inadequate and untenable. This situation causes drivers to make dangerous passes into head-on traffic on short straightaways without any legal passing zones. A meaningful number of new slow vehicle pullout lanes that are fully maintained through winter periods is desperately needed.                                                                                                                                                                                                                                                                                                                                                                                                              | Tenth Mtn Div Mem Highway, Minturn, Colorado 81649 |
| 139 | Although there is a neighborhood here with a significant amount of people, and increasing pedestrian (run/bike) use on Hwy 24 between downtown and the public school, fitness, and trailhead facilities at Maloit Park, this area has high speeds and no pedestrian accommodating. Need to reduce vehicle speeds sooner as people come off of Battle Mountain, perhaps well before the Maloit Park entrance, and need sidewalk or separated pedestrian/bike pathway at least out to Maloit and preferably to Tigiwon Rd.                                                                                                                                                                                                                                                                                                                                                                                                                   | 1716 Main Street, Minturn, Colorado 81645          |
| 138 | A significant number of new homes are coming online here. The need to extend the sidewalk from the 1000 block to the Minturn Boneyard and beyond to Maloit Park is greater than ever. In the meantime, regular pedestrian crossings around the Boneyard Open Space area are very treacherous here. Vehicles need to reduce their speeds much sooner down from 40/50mph to 25 or less, preferably 15, before they arrive to the Boneyard driveway and pedestrian crossing zone.                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1351 Main Street, Minturn, Colorado 81645          |
| 137 | Utilizing Hwy 24 and its narrow/absent shoulder is the only way pedestrians and bikers can get between the north and south ends of town. Accessing any of the public facilities or trailheads in Maloit Park and Tigiwon area via bike/foot/run is extremely dangerous due to the need to go through this area. Needs a sidewalk, separated bike/walk lane, or other pedestrian protection measures. As hundreds of new homes come online at the Maloit Park teachers housing and the Battle North development, the need for safe pedestrian passage through this area is only more pressing.                                                                                                                                                                                                                                                                                                                                              | 1616 Main Street, Minturn, Colorado 81645          |
| 136 | Vehicle speeds and traffic volumes make crossing Main very difficult near these businesses. This is only going to get worse as the large developments in Maloit Park are built. Downtown has limited site corridors due to development history. Please further reduce vehicle speeds on Hwy 24 in Minturn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 502 Main Street, Minturn, Colorado 81645           |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                        | Approx. Comment Location                   |
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| 135 | Vehicle speeds and traffic volumes make turning onto Main during morning and evening Lake County commuter traffic very difficult. This is only going to get worse as the large developments in Maloit Park are built. Downtown has limited site corridors due to development history. Please reduce downtown speeds.                           | 502 Main Street, Minturn, Colorado 81645   |
| 133 | Vehicle speeds make pedestrian crossing very difficult. Please slow traffic.                                                                                                                                                                                                                                                                   | 400 Main Street, Minturn, Colorado 81645   |
| 132 | Using the pedestrian crossing here is very difficult in mornings and evenings due to traffic volumes and speeds. Would like speeds reduced. Although some drivers do yield to pedestrians at the crosswalk, when drivers don't, the approach speeds and timing windows between cars are very tight to cross within. Would like speeds reduced. | 202 Main Street, Minturn, Colorado 81645   |
| 131 | Turning onto main in mornings and evenings during Leadville/Lake County commuter hours is very difficult due to vehicle speeds, the amount/consistency of cars, and shorter visibility in the downtown corridor. Would like speeds reduced.                                                                                                    | 50 Toledo Avenue, Minturn, Colorado 81645  |
| 130 | Crossing main as a pedestrian here is really tough when drivers don't yield to the crosswalk due to how fast cars travel through this corridor.                                                                                                                                                                                                | 161 Nelson Avenue, Minturn, Colorado 81645 |
| 129 | Turning onto Main in this area is really difficult due to traffic speeds and reaction times within the limited visibility downtown corridor.                                                                                                                                                                                                   | 156 Main Street, Minturn, Colorado 81645   |
| 128 | Vehicles too constant and too fast to turn right/N onto mainstreet during morning commuter traffic from Lake County; very difficult to left/S in the afternoon during the same.                                                                                                                                                                | 101 Main Street, Minturn, Colorado 81645   |
| 127 | Speed limits not enforced and most vehicles do not stop at crosswalks                                                                                                                                                                                                                                                                          | 491 Main Street, Minturn, Colorado 81645   |
| 126 | Very difficult line of sight when trying to turn onto Main Street. Additionally, vehicles traveling along HWY 24 can't see pedestrians trying to cross the road. CDOT need to allow for intermediate or smaller sized bulb outs/curb extensions to help create safety but not take away too much parking along Main St.                        | Norman Avenue, Minturn, Colorado 81645     |
| 125 | The hillside continues to move into HWY 24 (mudslides). Drainage, retaining walls and other mitigation efforts should be implemented as HWY 24 is the primary ingress/egress for the town of Minturn.                                                                                                                                          | 24747 US Route 24, Minturn, Colorado 81645 |
| 124 | Need traffic calming measures as vehicles prepare to enter town and residential areas.                                                                                                                                                                                                                                                         | US Route 24, Minturn, Colorado 81649       |
| 123 | Extensive on-street parking due to USFS trailhead parking lot overflow should have slower speed limits in this area.                                                                                                                                                                                                                           | 23698 US Route 24, Minturn, Colorado 81645 |
| 122 | We need stop signs on Hwy 24 within the town of Minturn                                                                                                                                                                                                                                                                                        | 789 Main Street, Minturn, Colorado 81645   |

| ID  | Comment                                                                                                                                                                                                                                                                                                                                                    | Approx. Comment Location                              |
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| 121 | Speeding Traffic is constant.                                                                                                                                                                                                                                                                                                                              | 23748 US Route 24, Minturn, Colorado 81645            |
| 120 | Traffic is going to fast on HWY 24 to make turns onto Main Street.                                                                                                                                                                                                                                                                                         | 102a Main Street, Minturn, Colorado 81645             |
| 119 | Traffic View is Obstructed when turning onto HWY 24                                                                                                                                                                                                                                                                                                        | 161 Nelson Avenue, Minturn, Colorado 81645            |
| 110 | Added ped safety needed                                                                                                                                                                                                                                                                                                                                    | 804 Cemetery Road, Minturn, Colorado 81645            |
| 109 | Traffic Speeding                                                                                                                                                                                                                                                                                                                                           | 761 Main Street, Minturn, Colorado 81645              |
| 108 | Semi Trucks should not be using this road as a bypass. They brake even though signs are posted and are always over the speed limit. The pedestrian flashing lights should be red not yellow we are telling cars to stop not slow down and cruise through. Speed humps should be used to slow people down from the Boneyard area to the end of Main Street. | 674 Main Street, Minturn, Colorado 81645              |
| 107 | Sidewalk on river side of road is very narrow. Cars and big trucks drive so fast right there next to pedestrians. Also no light for people crossing highway to park.                                                                                                                                                                                       | 751 Main Street, Minturn, Colorado 81645              |
| 106 | Tight, blind corner in an area with many pedestrians and bikes. Excessive speeds.                                                                                                                                                                                                                                                                          | 106 Main Street, Minturn, Colorado 81645              |
| 105 | Traffic speeds through here- Leadville commuters and semis. Feels unsafe to walk or bike through town.                                                                                                                                                                                                                                                     | 630 Main Street, Minturn, Colorado 81645              |
| 104 | Barely a shoulder to walk or bike on, no sidewalks. Traffic speeds through here-very dangerous for pedestrians/bikes and the people who live in this area.                                                                                                                                                                                                 | 1616 Main Street, Minturn, Colorado 81645             |
| 103 | Too many winter accidents on I70 here because the mountain shadow creates icy roads on a sharp turn at an on ramp. CDOT should build the tunnel they studied (and did a test bore for) years ago and eliminate this sharp curve.                                                                                                                           | Gerald R. Ford Memorial Highway, Avon, Colorado 81632 |
| 102 | Nelson Ave changes to Meadow Rd approximately here and not at the intersection with Williams St.                                                                                                                                                                                                                                                           | Meadow Road, Minturn, Colorado 81645                  |
| 101 | Incorrect street name - this is part of Williams St not Meadow Road                                                                                                                                                                                                                                                                                        | Meadow Lane, Minturn, Colorado 81645                  |
| 100 | Nearly impossible to turn left (north) onto highway 24 from Nelson Ave during high traffic times because parked cars obstruct the view.                                                                                                                                                                                                                    | 161 Nelson Avenue, Minturn, Colorado 81645            |



| ID | Comment                                                                                                                                                                                                                                                                                                                                                                                                                           | Approx. Comment Location                   |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 99 | Truck traffic along Main st. (highway 24) through Minturn is both constant and very dangerous. Often trucks nearly scrape one another as they pass by each other. All trucks over a certain length and weight should not travel through town, but be re-routed to highway 9. Also, the speed limit through Minturn needs to be reduced for all vehicles.                                                                          | 632 Main Street, Minturn, Colorado 81645   |
| 98 | I live one block away from this intersection which has a non-lit crosswalk. I have had a number of close calls while crossing this corner to the gas station across the way. From distracted drivers to speeding, this is a dangerous intersection that needs help.                                                                                                                                                               | 400 Main Street, Minturn, Colorado 81645   |
| 97 | There is obstructed Visibility to traffic heading south when entering hwy 24 via Mann Ave.                                                                                                                                                                                                                                                                                                                                        | Mann Street, Minturn, Colorado 81645       |
| 96 | Need a lighted crosswalk at corner of Main St & Toledo...most cars not driving the speed limit & cars don't always stop for pedestrians                                                                                                                                                                                                                                                                                           | 201 Main Street, Minturn, Colorado 81645   |
| 95 | Pedestrian cross walk desperately needed. This should also help slow traffic down for cars turning onto main street.                                                                                                                                                                                                                                                                                                              | 202 Main Street, Minturn, Colorado 81645   |
| 94 | There needs to be a sharp turn, sign here, warning, semi trucks to slow down around the corner. There's been many accidents head on collision because the corners too tight for the speed of semi trucks that can't make the corner and beer into oncoming traffic.                                                                                                                                                               | 23602 US Route 24, Minturn, Colorado 81645 |
| 93 | Difficult line of sight for turning onto Main Street. There is a utility pole blocking the view to the north.                                                                                                                                                                                                                                                                                                                     | 50 Toledo Avenue, Minturn, Colorado 81645  |
| 92 | Traffic calming measures needed to indicate vehicles are entering town and should slow down.                                                                                                                                                                                                                                                                                                                                      | 23622 US Route 24, Minturn, Colorado 81645 |
| 91 | The speed limit should be slower through town. There are bikers, cars, kids, driveways, businesses, public amenities, and more. Some intersections have poor visibility, most intersections don't have flashers at their crosswalks and there are not many crosswalks across Main Street. People try to dodge across the Main Street because they don't want to walk 3 extra blocks to find a crosswalk, and it's very dangerous. | 401 Main Street, Minturn, Colorado 81645   |
| 90 | Minturn has an amazing and highly-used amenity (a public amphitheater with concerts, events, recreation,, basketball courts, public park, etc) across the Eagle River and this intersection is the only access point, whether for vehicles or those traveling on foot or bike. The primary sidewalk is on the west side of Main Street/Hwy 24, and a crosswalk with flashing lights is needed.                                    | 741 Main Street, Minturn, Colorado 81645   |
| 89 | Inadequate speed control for cars coming into Minturn around a blind corner with heavy pedestrian traffic. Semi-Trucks often cannot navigate this turn without going into the opposing lane or hitting the curb.                                                                                                                                                                                                                  | 122 Main Street, Minturn, Colorado 81645   |

| ID | Comment                                                                                                                                                                                                                                                                                                                                         | Approx. Comment Location                   |
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| 88 | Extremely hard to see oncoming traffic when turning onto HWY 24. Recently extended no parking areas were helpful and now they have been reduced to what they were before. Didn't really like the white poles, but did feel that the longer no parking areas allowed for a further view to the North and South to make a safer turn onto HWY 24. | 50 Toledo Avenue, Minturn, Colorado 81645  |
| 87 | Highway 24 through Minturn NEEDS the speed lowered to a consistent 20-25 mph through the entirety of the residential and commercial areas. The inability for people to pull out from side streets SAFELY is a serious safety concern for pedestrians, cyclists and drivers.                                                                     | Breckenridge, Colorado 80424               |
| 86 | People drive WAY too fast through this corridor. Speed limit is 25. Maybe they don't see that it has dropped (from 35 in a separate corridor closer to Red Cliff). It's terrifying to live on Main St with 2 young kids and a dog and watch people driving have zero regard for their safety.                                                   | 455 Main Street, Minturn, Colorado 81645   |
| 85 | There is a crosswalk here and often people are driving way above the speed limit (which is supposed to be 25). Better signage will help, maybe some slowdown physical barriers in the crosswalk. I've been with a stroller and a dog and have had people drive by without stopping to let me cross.                                             | 511 Main Street, Minturn, Colorado 81645   |
| 84 | People use visual cues more than speed signs, and this area is visually where people begin to speed past the 25 limit, even though there is a ped crosswalk and a bus stop, where kids also are picked/dropped for school.                                                                                                                      | 481 Main Street, Minturn, Colorado 81645   |
| 83 | This area has a 35mph sign maybe 50 yards before a 25mph sign. Once someone sees a speed sign, are they less likely to notice another so soon after the first? Speeds after the 25 sign are commonly 5-10 mph over.                                                                                                                             | 642 Main Street, Minturn, Colorado 81645   |
| 82 | Speed limit should be 20 through most of downtown, we have a lot of bikers and pedestrians. Physical road calming measures should be in place, e.g. chicanes (possibly with alternating angled parking), road humps, more flashing crosswalks                                                                                                   | 261 Main Street, Minturn, Colorado 81645   |
| 81 | Speed limit should be 25 starting here towards town, then reduce to 20 at 500 block                                                                                                                                                                                                                                                             | 1172 Main Street, Minturn, Colorado 81645  |
| 80 | Speed limit should be 20 from 100-500 blocks, with road calming measures in place so people obey it                                                                                                                                                                                                                                             | 562 Main Street, Minturn, Colorado 81645   |
| 79 | Crosswalk and lights needed                                                                                                                                                                                                                                                                                                                     | 804 Cemetery Road, Minturn, Colorado 81645 |
| 78 | Inadequate sidewalk for pedestrians going to or coming from the bike park/little beach                                                                                                                                                                                                                                                          | 702 Main Street, Minturn, Colorado 81645   |
| 77 | This section is dangerous for bikers and walkers. Can't even ride on the grass along the road because of holes and the sidehills?                                                                                                                                                                                                               | 1616 Main Street, Minturn, Colorado 81645  |
| 76 | We need to slow down traffic in this section of Minturn. Seventy percent are traveling faster than the posted limit, and large trucks are using their Jake brakes at all hours of the day. There is no shoulder for kids to ride bikes to school or the park, which is very dangerous.                                                          | 1108 Main Street, Minturn, Colorado 81645  |

| ID | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Approx. Comment Location                     |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 75 | Making a left turn on this curve from the highway onto our road is dangerous, and cars often speed around corner heading south, not anticipating traffic may be stopped for a left turn here.                                                                                                                                                                                                                                                                                                                             | 1716 Main Street, Minturn, Colorado 81645    |
| 74 | tough intersection to see traffic on highway 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 221 Main Street, Minturn, Colorado 81645     |
| 73 | Reduce speed limits on Hwy 24 in town to 25 mph from Williams St to Battle Mountain.                                                                                                                                                                                                                                                                                                                                                                                                                                      | 167 Williams Street, Minturn, Colorado 81645 |
| 72 | Poor sight triangles. Dangerous gas station entrance on Harrison.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 384 Main Street, Minturn, Colorado 81645     |
| 71 | Too many 18 wheelers speeding through this small town. Speed limit needs to be reduced. Many residents walk and ride bikes.                                                                                                                                                                                                                                                                                                                                                                                               | 671 Main Street, Minturn, Colorado 81645     |
| 70 | The bulb out sticks directly behind driveway create a hazard when backing out of driveway onto highway. I have to use both lanes because the white sticks prevent using just one lane when pulling out                                                                                                                                                                                                                                                                                                                    | 502 Main Street, Minturn, Colorado 81645     |
| 69 | Intersections at Norman St and Meek St need better crossroads signs                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 502 Main Street, Minturn, Colorado 81645     |
| 68 | This is a tight curve with no shoulder or side walk. There is a lot of bicycle and pedestrian traffic, as well as a few driveways entering the highway. It is very unsafe.                                                                                                                                                                                                                                                                                                                                                | 1688 Main Street, Minturn, Colorado 81645    |
| 67 | Cars are traveling at excessive speeds North bound because they are coming out of one of the few straight away parts of the road in the Leadville to Eagle County commute. South bound they are speeding and passing in the no passing zone at this point, so they can get ahead of the other cars on the commute home to Leadville.                                                                                                                                                                                      | 1010 Main Street, Minturn, Colorado 81645    |
| 66 | This section of road is so dangerous. Drivers and trucks coming from both North and South speed through here. The limit is 45 and they exceed 60. It is an icy curve in the winter. It is also a residential zone. There is NO shoulder to walk or bike on. Will CDOT wait until someone gets hurt or dies before doing something.                                                                                                                                                                                        | 1616 Main Street, Minturn, Colorado 81645    |
| 65 | There needs to be a what's your speed indicator here on hwy 24 to ensure people are aware of their speed compared to the speed limit. People are coming into town and missing the speed reduction.                                                                                                                                                                                                                                                                                                                        | 702 Main Street, Minturn, Colorado 81645     |
| 64 | Super hard to see oncoming traffic when turning onto the highway.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 156 Main Street, Minturn, Colorado 81645     |
| 63 | Kids get picked up and dropped off by the bus here. People often are about to start gunning it as they are getting through town, or they haven't slowed down yet coming into town. It can be terrifying to watch how fast people go blazing by even when the bus is stopped, even with the bus stop sign out. Thankfully, the sheriff often catches these guys, but this is usually AFTER they've already run the bus stop sign. And with small kids running across the street to catch the bus... well, it's terrifying. | 471 Main Street, Minturn, Colorado 81645     |

| ID | Comment                                                                                                                                                                                                                                                                                                               | Approx. Comment Location                                |
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| 62 | Crosswalk with flashing pedestrian light needed. And please reduce the speed through town to 15MPH                                                                                                                                                                                                                    | 384 Main Street, Minturn, Colorado 81645                |
| 61 | Cars come through too fast and I see pedestrians at risk of being hit daily. I would like to see flashing lights at crosswalks throughout town. And specifically at the 200 and 100 block.<br>Nelson Avenue And Toledo Avenue                                                                                         | 156 Main Street, Minturn, Colorado 81645                |
| 60 | South end of Minturn. Hwy 24<br>The speed limit should be lowered. There are many homes and trails. Plus a school turn in. People speed 10-15 +++miles over speed limit. Turning into my home is frightening when you see a semi coming on you at 55 mph. Many neighbors have been hit.                               | Minturn, Colorado 81645                                 |
| 59 | Need to complete Vail Pass Safety Improvements project. Vail Pass closures cause detours through small residential towns where increased traffic and large trucks combine with pedestrians and cyclists creating unsafe conditions.                                                                                   | Gerald R. Ford Memorial Highway, Frisco, Colorado 81632 |
| 58 | Decrease vehicular speed limits as cars are entering town.                                                                                                                                                                                                                                                            | 1892 Cross Creek Road, Minturn, Colorado 81645          |
| 57 | Need modified bulb-outs for increasing line of sight for pedestrians, cyclists and vehicles. (Minturn needs solutions that work within a small community and support resident safety combined with the ability to maintain parking for businesses). The current CDOT requirements do not support both of these goals. | 308 Main Street, Minturn, Colorado 81645                |
| 56 | No pedestrian facilities due to cost limitations leaving residents to walk along US HWY 24 with vehicular speeds over 40 mph.                                                                                                                                                                                         | 1720 Main Street, Minturn, Colorado 81645               |
| 55 | Vehicular speeds too high for the number of residential driveways, pedestrians and cyclists in the area.                                                                                                                                                                                                              | 1141 Main Street, Minturn, Colorado 81645               |
| 54 | No crosswalk for access to the primary park in town leaving pedestrians unsure how to safely cross the highway.                                                                                                                                                                                                       | 741 Main Street, Minturn, Colorado 81645                |
| 53 | Cable rail needs to be maintained and repaired in a timely manner after an accident so it will safe for the next hit.                                                                                                                                                                                                 | 7259 South Turkey Creek Road, Morrison, Colorado 80465  |
| 52 | Emergency response is unable to utilize I-70 and I-76 shoulders in Denver Metro area responding to incidents due to lack of maintenance and debris removal.                                                                                                                                                           | 67th Avenue, Denver, Colorado 80216                     |
| 51 | Highway roadside improvements with better shoulders, operational widenings that benefit safety still need to be considered going forward. Poor operational LOS leads to congestion, driver frustration increases, and safety problems are multiplied and magnified.                                                   | East State Highway 86, Castle Rock, Colorado 80116      |
| 50 | State highways in our community are frequently driven with high speed, and red-light running behaviors. Signal timing, clearance and visibility improvements; enforcement and education to address these areas needs to be improved.                                                                                  | 4514 Tahoa Court, Castle Rock, Colorado 80104           |



| ID | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                        | Approx. Comment Location                             |
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| 49 | Roundabouts need a CDOT SPF. I understand the State is working on this however, we needed something a couple years ago. Something is better than nothing so these rapidly growing intersection types can be evaluated, and safety improvements addressed. This roundabout is a frequently visited intersection by Police on a regular basis with the same crash types. Better guidance to address crashes at roundabouts needs to be in place. | Castle Rock Parkway, Castle Rock, Colorado 80108     |
| 48 | Local agency has tried to assist CDOT in management of street lighting. CDOT has not changed over the meter to local agency so we are not able to repair, operate the arterial/highway street light system. This is safety hazard for all roadway users.                                                                                                                                                                                       | Meadows Parkway, Castle Rock, Colorado 80109         |
| 47 | There is a lack of safe accessible multi-modal facilities on state highways. This needs to be a greater safety priority for the state. Preventing ped access midblock on high speed arterial/highways in urban/suburban communities needs greater implementation.                                                                                                                                                                              | Meadows Parkway, Castle Rock, Colorado 80109         |
| 46 | CDOT signalized intersections need more safety improvement attention. The free rights are a major conflict safety issue for peds and cyclists. Raised crosswalk treatments at signalized hwy intersections should be a standard.                                                                                                                                                                                                               | 2965 Santa Fe Drive, Castle Rock, Colorado 80109     |
| 45 | CDOT ramp meter operation needs better operation and maintenance attention. Backing up local arterials on a regular basis with free flow on the interstate creates safety hazards on local roadways. This is worse at this location, but all ramp meters have struggled to effectively / safely manage traffic to varying degrees.                                                                                                             | I 25, Castle Rock, Colorado 80104                    |
| 44 | CDOT signalized intersections need more safety improvement attention. I25 SB- 2018-2022 crash history, LOSS total IV, Crash pattern - sideswipe, overtaking turn, Additional off ramp right turn lane, longer mast arm to align signals over lanes are needed, possible ramp sign bridge to guide traffic to appropriate lane use to reduce crashes.                                                                                           | Frontage Road, Castle Rock, Colorado 80109           |
| 43 | CDOT signalized intersections need more safety improvement attention. I25 NB Plum Creek - 2018-2022 crash history, LOSS total IV, Crash pattern - broadside, Town had to remove through lane on Plum Creek Pkwy for safety reasons of the ATMS and double right lane use compliance. CDOT needs to put a dedicated right turn lane in for ramp operation/safety, as the local agency needs to re-open the 2nd through lane on Plum Creek.      | West Plum Creek Parkway, Castle Rock, Colorado 80109 |
| 42 | CDOT signalized intersections need more safety improvement attention. I25 NB / Wolfensbeger- 2018-2022 crash history, LOSS Total IV, Crash pattern - approach turn, removing the signal and replacing with an interchange roundabout would be beneficial due to the non-perpendicular approach angles                                                                                                                                          | 830 North Wilcox Street, Castle Rock, Colorado 80104 |
| 41 | CDOT intersections need more safety improvement attention. Founders / Metzler - 2018-2022 crash history, Crash pattern - approach turn This a 3/4 with signal queues that back up and created a crash problem. Closing the 3/4 to RI/RO would address                                                                                                                                                                                          | 5188 Founders Parkway, Castle Rock, Colorado 80108   |
| 39 | CDOT signalized intersections need more safety improvement attention. I25 NB - 2018-2022 crash history, Crash pattern - broadside                                                                                                                                                                                                                                                                                                              | 246 Founders Parkway, Castle Rock, Colorado 80104    |

| ID | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Approx. Comment Location                            |
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| 38 | CDOT arterial intersections need more safety improvement attention.<br>Founders / Trail Boss - 2018-2022 crash history, LOSS Total III, LOSS severe IV.<br>Crash pattern - broadside                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4621 Trail Boss Drive, Castle Rock, Colorado 80104  |
| 37 | CDOT signalized intersections need more safety improvement attention.<br>US 85/Promenade - 2018-2022 crash history, LOSS severe III.<br>Four section FYA, advanced signal beacon, shoulder improvements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5546 Promenade Parkway, Castle Rock, Colorado 80108 |
| 36 | CDOT signalized intersections need more safety improvement attention.<br>Founders / Aloha- 2018-2022 crash history, LOSS severe IV.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Aloha Court, Castle Rock, Colorado 80104            |
| 35 | CDOT arterial intersections need more safety improvement attention.<br>Founders / Front- 2018-2022 crash history, LOSS Total IV.<br>Crash type - approach turn, and right turns conflicting with pedestrians.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5188 Founders Parkway, Castle Rock, Colorado 80108  |
| 34 | This is a high wildlife crash corridor.<br>CDOT needs a proactive approach to addressing wildlife crashes on state highways. Plan, identify, implement before its a crisis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2525 Founders Parkway, Castle Rock, Colorado 80108  |
| 33 | CDOT arterial intersections need more safety improvement attention.<br>Founders / Crowfoot Valley - 2018-2022 crash history, LOSS Total III.<br>Needs advanced warning beacon due to curvature and downhill approach.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Founders Parkway, Castle Rock, Colorado 80104       |
| 32 | CDOT arterial intersections need more safety improvement attention. CDOT Reg 1 is aware of the need for a signal at this intersection. They don't have funding or desire to signalize in the next 10 years due to some many other signal needs. This pushes the problem to local agencies who have their own priority projects that need to be addressed. CDOT should be able to assist LA, not the other way around. FHWA helps CDOT, and the expectation is that you are in a position to help locals.<br>Founders / Crimson Sky - 2018-2022 crash history, LOSS Total IV.                                                                                                                                                                                                                                               | 851 Founders Parkway, Castle Rock, Colorado 80104   |
| 31 | CDOT arterial intersections need more safety improvement attention.<br>Founders / Allen - 2018-2022 crash history, LOSS Total IV, LOSS severe III.<br>Crash pattern - overtaking turn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5642 Allen Way, Castle Rock, Colorado 80108         |
| 30 | The number of fatality and severe crash incidents on I25 has been steadily rising and getting worse in this section between Lone Tree and Castle Rock. I anticipate this will continue to degrade more severely over the next 10 years. The ripple effect is a complete breakdown of operations and safety for multiple hours for the Castle Rock area when this occurs.<br><br>Having durable alternate routes, like 4 lane section on Hwy 85, slower speed limit on I25 with stronger more consistent enforcement.<br><br>Improving connectivity and response to these incidents will help preserve the integrity of the off-highway system. This needs to be a greater consideration of CDOT as some of the worst crash LOSS are at your major arterial signalized intersections and incidents on I25 make those worse. | I 25, Castle Rock, Colorado 80109                   |

| ID | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Approx. Comment Location                                 |
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| 28 | Lack of adequate ped and bike connectivity along State Highways is a serious deterrent to mobility and safety in the south Denver DRCOG area.<br>We regularly hear, and particularly on Bike to Work days, folks can't ride on CDOT roadways in Castle Rock.                                                                                                                                                                                                                                                                                                                                                                                  | 5012 Founders Parkway, Castle Rock, Colorado 80108       |
| 25 | Lack of side path along State Highways is a serious deterrent to mobility and safety in the south Denver DRCOG area.<br>We regularly hear, and particularly on Bike to Work days, folks can't ride in and out of Castle Rock safely to Sterling Ranch and Littleton.                                                                                                                                                                                                                                                                                                                                                                          | Sabercat Way, Castle Rock, Colorado 80109                |
| 24 | I70 between Denver and Byers. Road is coming apart where patch work was done. as weather has been moving through the road continues to deteriorate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 874 F Avenue, Limon, Colorado 80828                      |
| 23 | there are bus stops on either side of this intersection. The distance to a signal crosswalk in either direction is extremely long for pedestrians. People sprint across this 8 lane road multiple times a day. This is an extremely dangerous place with fatal pedestrian deaths. Either the bus stops need to move, or a lighted crosswalk needs to be added.                                                                                                                                                                                                                                                                                | 3803 Half Turn Road, Colorado Springs, Colorado 80917    |
| 22 | Drainage issue that has lead to water on the road and previously washed cars off into the drainage ditch. The current solution - closing the intersection whenever the weather report indicates rain -is far from perfect. The gate remains locked for days at a time while locals residents and commuters trying to access North Carefree are forced to take long detours. The y shaped intersection also has limited visibility and results in minor crashes often. With the continued development of housing units on Date Street, the traffic at this intersection necessitates a sidewalk, working drainage, and greater car visibility. | 3963 Siferd Boulevard, Colorado Springs, Colorado 80917  |
| 21 | The difference between the expensive Belmar TM housing blocks near Kentucky Dr & Pierce and the mobile homes closer to Mississippi & Pierce is shocking. Why does the sidewalk end? Why is does the speed limit increase from Kentucky Dr? The bike lane along Pierce is unusable (slopped, small, unprotected) compared to the one on Kentucky. There are a ton of apartments along the Pierce & Mississippi intersection that don't have safe pedestrian & bicycle access compared to a few blocks north.                                                                                                                                   | 1008 South Pierce Street, Lakewood, Colorado 80226       |
| 20 | SO SO many people walk to this grocery store and shopping plaza. The crossing signal across Jewell Ave is plenty long, but going across Wadsworth is dangerous because the crosswalk time ends too fast. I often see people sprinting with their groceries in hand trying to get through the intersection in time. The sidewalk feels very dangerous with the proximity to the road. Ideally there would be a buffer zone between sidewalk and street, or at least a larger sidewalk.                                                                                                                                                         | 1898 South Wadsworth Boulevard, Lakewood, Colorado 80232 |
| 19 | This intersection connects many houses, a high school, recreation center, and parks. The car traffic is extremely fast from commuters and the sidewalks just end a little further north on Wadsworth. The numerous bus stops near this intersection are pretty popular but have no bench or shelter. This intersection needs to prioritize multimodal transit better, and I think that Mississippi Street which is less busy than Wadsworth should have a protected bike lanes and curb cuts on both sides on the intersection.                                                                                                               | 1110 South Wadsworth Boulevard, Lakewood, Colorado 80232 |

| ID | Comment                                                                                                                                                                                                                                                                                                                                                                     | Approx. Comment Location                                 |
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| 18 | Students cross US40 on foot and bike to access the Sleeping Giant School (K-8 school) from the Heritage Park neighborhood. The neighborhood has an established foot path encouraging pedestrians and bikers to cross at this point. There is very limited visibility for vehicles traveling west on US40 as a hill crests just above the place where students are crossing. | US Route 40, Steamboat Springs, Colorado 80487           |
| 17 | Drainage issue at the Airport Road Eastbound off ramp that causes standing water on the roadway.                                                                                                                                                                                                                                                                            | Tuskegee Airmen Memorial Highway, Aurora, Colorado 80019 |



| ID | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Approx. Comment Location                                |
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| 16 | <p>The US40 Intersection is the sole ingress/egress to the neighborhoods of Heritage Park and Steamboat II (276 total households). The Intersection also serves as the sole ingress/egress to:</p> <ul style="list-style-type: none"> <li>» Steamboat Montessori School (174 students and 33 employees with no school bus service available)</li> <li>» Anchor Way Church</li> <li>» Steamboat Bible Church</li> <li>» Heritage Park Preschool (40 students and 12 employees)</li> <li>» Heritage Park soccer fields</li> </ul> <p>As a United States highway, 24,000 vehicles pass through this intersection daily. However, there is no current traffic control or safe crossing at the Intersection. In the absence of a light, there is no way for vehicles to safely enter or exit the highway or for pedestrians (including students) to safely cross the intersection. There is an urgent need for a traffic light and a pedestrian underpass at the Intersection.</p> <p>The speed limit on this section of US40 is 50 MPH (40MPH during school hours), with cars frequently traveling over 65 MPH. The Intersection presents significant safety risks in light of the density of vehicle and pedestrian traffic on US40 and between the neighborhoods and schools. Signage alone is not enough to alert highway drivers that they are entering a residential and school neighborhood where travel speeds must be reduced.</p> <p>Long lines of vehicles trying to enter Highway 40 at the Intersection can be observed during morning commuting times and during school pick up. Several close encounters have occurred including cars traveling the wrong way down US40 in an effort to expedite the turn out of the Steamboat II neighborhood during times when there is a constant stream of traffic on the highway. During these peak usage times, parents and young children are regularly attempting to cross the highway on foot with limited visibility. Middle school students dart across the highway when school is released. It is a matter of time before a serious accident will take place at the Intersection.</p> <p>Children are regularly found using the drainage culvert under the highway as a safe crossing space between schools, churches, neighborhoods, soccer fields, parks, and trails.</p> <p>The safety of this intersection has been a known issue for over a decade. The 2010 West Steamboat Springs US Highway 40 NEPA Study (created in partnership with the City of Steamboat Springs, Routt County and the Colorado Department of Transportation) recommends a signal at the intersection along with a pedestrian underpass (Appendix A). Pressure on the intersection has only increased since the Steamboat Montessori School opened in 2016 and Sleeping Giant School opened in 2021. Without regional transportation options, more vehicles are projected in future years to make the daily commute on US40 to and from Hayden and Craig.</p> <p>With the increased pressure on this high density residential and school intersection, the time has come for safety improvements at the Intersection in order to reduce the chances of accidents occurring for vehicles and pedestrians.</p> | 27285 Brandon Circle, Steamboat Springs, Colorado 80487 |

| ID | Comment                                                                                                                                                                                                                                                                                                                                                                                                                            | Approx. Comment Location                                 |
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| 15 | This lane from Federal to Colfax is used by large numbers of community members and commuters walking and biking in both directions. There is a no walk/bike sign, however there is not a connection here. This direct route connects people to the sidewalk on the northside of Colfax Ave in order to get to downtown Denver as well as connecting with Mile High Stadium, from/to the Decatur/Federal Bus and Lightrail Station. | 1320 Federal Boulevard, Denver, Colorado 80204           |
| 14 | WB traffic on 56th needs a protected left turn on to Havana Southbound.                                                                                                                                                                                                                                                                                                                                                            | 10495 East 56th Avenue, Denver, Colorado 80022           |
| 13 | design taking trucks into consideration                                                                                                                                                                                                                                                                                                                                                                                            | 11130 US Route 50, Poncha Springs, Colorado 81201        |
| 12 | Is this the best lane configuration, where the Managed Lane drops right at the point that traffic is in the far left lane trying to navigate to the right lane to exit at Pena Blvd or Airport Road?                                                                                                                                                                                                                               | I-70 Express Lane East, Aurora, Colorado 80011           |
| 11 | Construction Safety                                                                                                                                                                                                                                                                                                                                                                                                                | Interstate 70, Golden, Colorado 80476                    |
| 10 | Is there any truck safety enforcement or weight check stations on the Central 70 corridor?                                                                                                                                                                                                                                                                                                                                         | Tuskegee Airmen Memorial Highway, Denver, Colorado 80019 |
| 9  | safe chain up and chain down stations                                                                                                                                                                                                                                                                                                                                                                                              | 5375 US Route 285, Morrison, Colorado 80465              |
| 8  | Vertical crest curve danger                                                                                                                                                                                                                                                                                                                                                                                                        | 14956 Colorado Highway 52, Fort Lupton, Colorado 80621   |

