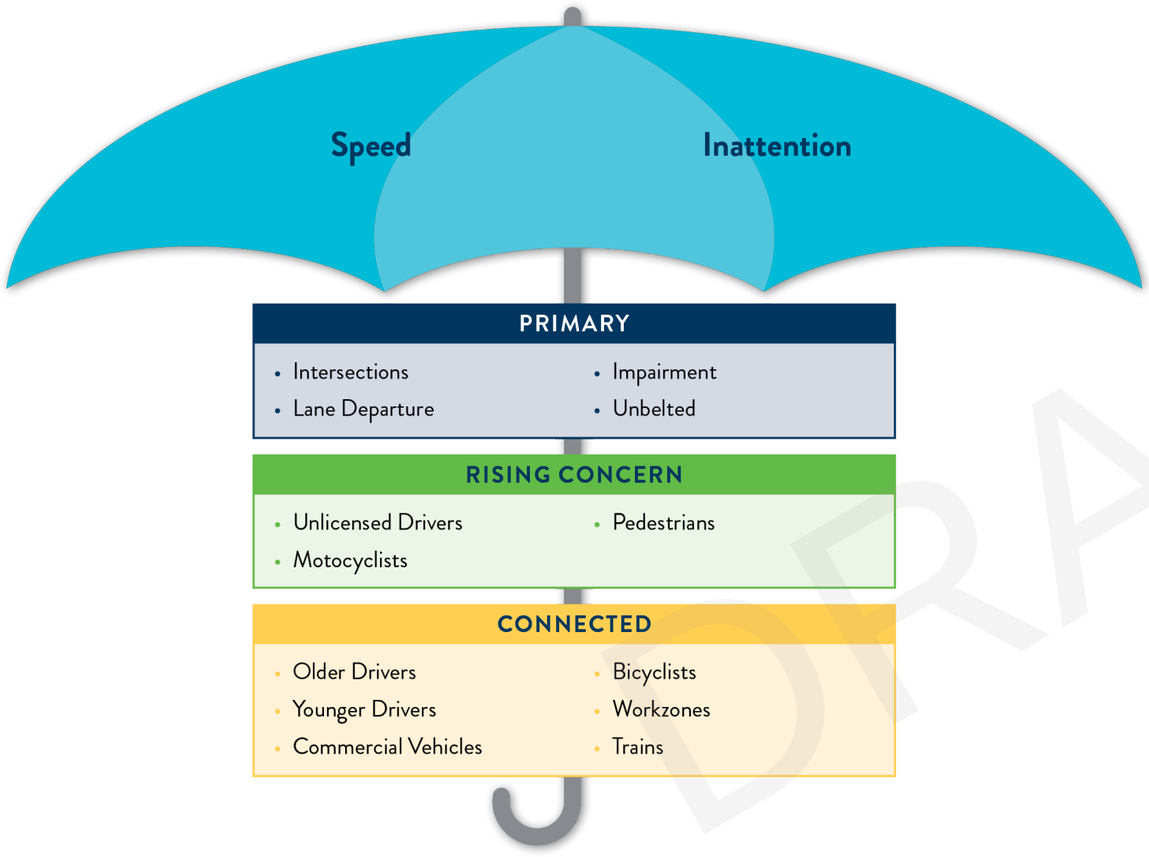
Focus Areas and Categories



The SHSP also includes Support Systems Focus Areas:

- Traffic Safety Culture
- EMS and Trauma Systems
- Vehicle Safety Enhancements
- Management Systems
- Data Management

INDEX

The order of strategies and tactics with a Focus Area does not indicate priority.

OVERARCHING PRINCIPLE: EMPHASIZE VULNERABLE ROAD USER SAFETY NEEDS IN SHSP IMPLEMENTATION

	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Seek to prioritize the needs of vulnerable users and underserved populations in the implementation of SHSP strategies and tactics wherever relevant.		
• **Tactic 1.1.** Invite non-traditional partners (for example, SHIP Coordinators, MPCA, and DPS Public Affairs staff) to develop implementation approaches that emphasize the safety needs of vulnerable road users.	• Enforcement • Education • Engineering • EMS	• Safe Road Users • Safe Vehicles • Safe Speeds • Safe Roads • Post-Crash Care
• **Tactic 1.2.** Incorporate vulnerable road user safety needs into grant scoring criteria.		
• **Tactic 1.3.** Expand transportation safety data collection and sharing to better understand and address the needs of vulnerable and underserved populations.		
• **Tactic 1.4.** Through multi-agency collaboration, explore enhanced equitable enforcement approaches based on research and review of new and best practices.		

UMBRELLA FOCUS AREAS: SPEED, INATTENTION

Focus Area: Speed	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Develop a comprehensive plan to systematically reduce speeds.		
• **Tactic 1.1 (Key Tactic):** Develop a Speed Management Action Plan. Incorporate State Patrol, Local Law Enforcement, Engineering, and TZD to create a comprehensive plan to identify locations, times, and strategies to effectively manage speed through enforcement, speed safety cameras, engineering re-design, and traffic safety culture tactics.	• Enforcement • Education • Engineering • EMS	• Safe Road Users • Safe Speeds • Safe Roads • Post-Crash Care
Strategy 2: Improve speed-related crash data and driver violation history.		
• **Tactic 2.1:** Improve the speed crash data quality through educating law enforcement to update MnCrash once crash reconstruction is complete.	• Enforcement	• Safe Road Users • Safe Speeds
• **Tactic 2.2 (Key Tactic):** Provide law enforcement with up-to-date driver violation history and prior convictions at the time of the traffic stop to help identify repeat violators.	• Enforcement	• Safe Road Users • Safe Speeds
Strategy 3: Assess and expand the pilot use of speed safety cameras and related public education efforts.		
• **Tactic 3.1:** Conduct assessment of Minnesota pilot speed safety camera efforts to determine if project goals accomplished and determine successes and recommended changes in safety strategy application, communications or public engagement for potential expanded applications.	• Enforcement • Education • Engineering • EMS	• Safe Road Users • Safe Speeds • Safe Roads • Post-Crash Care
• **Tactic 3.2 (Key Tactic):** Develop a speed safety camera program plan for work zones and school zones based on Minnesota's pilot results with consideration of the USDOT SSC guidelines for planning, public involvement, stakeholder coordination, implementation, maintenance, and evaluation.	• Enforcement • Education • Engineering • EMS	• Safe Road Users • Safe Speeds • Safe Roads • Post-Crash Care

UMBRELLA FOCUS AREAS: SPEED, INATTENTION

Focus Area: Speed	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 3.3:** Enable automated enforcement options to be deployed systematically to support enforcement's impact on reducing high-risk driving behaviors.	• Enforcement • Engineering	• Safe Road Users • Safe Speeds • Safe Roads
• **Tactic 3.4:** Conduct network analysis to identify work zones and school zones, roadway types, times of day, and road users that could most benefit from potential speed safety camera application.	• Enforcement • Engineering	• Safe Road Users • Safe Speeds • Safe Roads
• **Tactic 3.5:** (Key Tactic): Develop communication messaging educating the public that with proper controls in place, speed safety cameras can offer fair and equitable enforcement of speeding (regardless of driver age, race, gender or socio-economic status).	• Enforcement • Education • Engineering	• Safe Road Users • Safe Speeds • Safe Roads
Strategy 4: Strengthen speed enforcement campaigns and public visibility.		
• **Tactic 4.1:** Evaluate the impact of Minnesota 2024 Transportation Omnibus Bill legislative funding for extra traffic enforcement and develop recommendations.	• Enforcement • Education	• Safe Road Users • Safe Speeds
• **Tactic 4.2:** Increase funding to support highly visible, publicized and saturated enforcement campaigns at locations with higher incidence of speed-related crashes.	• Enforcement • Education	• Safe Road Users • Safe Speeds
• **Tactic 4.3:** Strengthen fines and penalties for repeat offenders.	• Enforcement • Education	• Safe Road Users • Safe Speeds

UMBRELLA FOCUS AREAS: SPEED, INATTENTION

Focus Area: Speed	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 4.4:** Adopt a sliding scale for moving violation penalties. (ACTS August 2025 Policy & Legislative Proposal Considerations Summary)	• Enforcement • Education	• Safe Road Users • Safe Speeds
• **Tactic 4.5:** Adopt Intelligent speed assistance requirement for repeat offenders.	• Enforcement • Education	• Safe Road Users • Safe Speeds • Safe Vehicles
Strategy 5: Strengthen driver awareness of speed-related consequences.		
• **Tactic 5.1:** Increase funding for sustained public communication support on both the consequences of speed and key social norming messages to change driver attitudes and cultural norms regarding speed.	• Education • Enforcement	• Safe Road Users • Safe Speeds
• **Tactic 5.2:** Fund a Minnesota pilot program coupled with media outreach for the use of telematic monitoring systems to provide real-time feedback on high-risk driving behavior to encourage mid-driving correction and crash prevention. **OR** • **Tactic 5.2:** Adopt a court ordered behavioral telematics program for serious traffic offenders.	• Education	• Safe Road Users • Safe Speeds
Strategy 6: Design roadways to encourage appropriate speeds and reduce crash severities.		
• **Tactic 6.1:** Incorporate speed-reducing factors leading up to intersections. Highly effective examples include reduced lane width, urbanization, radar feedback devices, and raised medians.	• Engineering	• Safe Roads • Safe Speeds
• **Tactic 6.2:** Incorporate speed-reducing design on corridors, especially high-speed to low-speed transition zones. Highly effective examples include reduced lane widths, raised medians, radar feedback devices, transverse pavement markings/converging chevron markings, lane shifts, and timing signalized corridors to encourage appropriate speeds.	• Engineering	• Safe Roads • Safe Speeds

Focus Area: Inattention	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve the quality of inattentive driving crash data		
• **Tactic 1.1 (Key Tactic):** In collaboration with Minnesota Traffic Records Coordinating Committee, ensure enforcement crash reporting and the attribute values are aligned with the 2024 edition of the Model Minimum Uniform Crash Criteria (MMUCC).	• Enforcement • Engineering	• Safe Road Users • Safe Roads
• **Tactic 1.2:** Obtain funding to conduct annual observational surveys to collect inattentive driving behavioral data.	• Education	• Safe Road Users
Strategy 2: Improve education and awareness to reduce inattentive driving		
• **Tactic 2.1:** Analyze crash data to identify the target demographic to determine key messages and effective media platforms to reach the identified target.	• Education • Enforcement	• Safe Road Users
• **Tactic 2.2 (Key Tactic):** Increase funding for public information and outreach to support pre- and post-enforcement inattentive driving campaigns, including messaging highlighting risks and enforcement campaign results.	• Education • Enforcement	• Safe Road Users
• **Tactic 2.3:** Promote employer adoption and enforcement of policies that prohibit employees from engaging in distracting behaviors while driving on the job.	• Education	• Safe Road Users
Strategy 3: Strengthen enforcement tools and criminal penalties to reduce inattentive driving		
• **Tactic 3.1:** Increase the use of enhanced high-visibility enforcement, coupled with public information campaigns about the enforcement, to higher-risk groups.	• Enforcement • Education	• Safe Road Users
• **Tactic 3.2 (Key Tactic):** Identify new funding for law enforcement tools and equipment needed to identify offenders and effectively enforce Minnesota's distracted and careless driving laws.	• Enforcement • Education	• Safe Road Users
• **Tactic 3.3**: Strengthen judicial support to convict and sentence distracted drivers.	• Enforcement	• Safe Road Users
• **Tactic 3.4 (Key Tactic):** Strengthen criminal penalties for distracted driving causing severe injuries or death through 1) legislative changes to the Criminal Vehicular Homicide (CVH) and Criminal Vehicular Operation (CVO) statutes to specifically include the "use of an electronic device while driving" and 2) supporting an increase in the severity levels for CVH and CVO within the Minnesota Sentencing Guidelines Grid.	• Enforcement	• Safe Road Users
Strategy 4: Support the advancement of technology improvements to reduce inattentive driving		

Focus Area: Inattention	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 4.1 (Key Tactic):** Fund pilot program coupled with media outreach for the use of telematic monitoring systems to provide real-time feedback on high-risk driving behavior to encourage mid-driving correction and crash prevention.	• Education	• Safe Road Users
• **Tactic 4.2:** Promote the use of cell phone settings and apps that limit incoming distractions while driving and provide real-time driver feedback on high-risk driving behavior.	• Education	• Safe Road Users
• **Tactic 4.3:** Promote awareness and use of Advanced Driver Assistance System (ADAS) vehicle technology such as collision avoidance to help drivers operate safely and prevent accidents.	• Education	• Safe Vehicles • Safe Road Users

PRIMARY FOCUS AREAS: INTERSECTIONS, LANE DEPARTURE, IMPAIRMENT, UNBELTED

Focus Area: Intersections	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve safety through intersection design changes and alternative intersections		
• **Tactic 1.1 (Key Tactic):** Design intersections to eliminate critical conflict points, especially at high-risk locations or locations with a history of severe crashes. Highly effective examples include roundabouts, J-Turns, ¾ intersections, restricted movement intersections, adding directional medians, and others. Incorporate bike/pedestrian facilities where these alternative intersections are implemented.	• Engineering	• Safe Roads • Safe Speeds
• **Tactic 1.2:** Incorporate pedestrian, bicycle, and transit facilities in intersection design, especially at high-risk locations or locations with high pedestrian and bicyclist activity. Highly effective examples include installing sidewalks, high visibility crosswalk markings, median refuge islands, curb extensions, and removing pork-chop islands at channelized right-turn lanes. These examples are most effective when used in combination with each other.	• Engineering	• Safe Roads • Safe Speeds
• **Tactic 1.3:** Increase education and public outreach about alternative intersection designs and how to use them. Support data-driven solutions and explore ways to communicate the safety benefits of alternative intersections.	• Education	• Safe Road Users
Strategy 2: Incorporate enhanced safety features at intersections		
• **Tactic 2.1 (Key Tactic):** Improve the visibility of all road users at intersections through use of lighting and unobstructed sightlines, especially at high-risk locations or locations with a history of severe crashes.	• Engineering	• Safe Roads
• **Tactic 2.2:** Improve and maintain signing and pavement markings, especially at high-risk locations or locations with a history of severe crashes.	• Engineering	• Safe Roads
• **Tactic 2.3:** Prioritize safety for pedestrians, bicyclists, and transit users through safety features, especially at high-risk locations or locations with high pedestrian and bicyclist activity. Highly effective examples include rectangular rapid flashing beacons and pedestrian hybrid beacons, leading pedestrian intervals at signalized intersections, and other protected pedestrian movements at signalized intersections.	• Engineering	• Safe Roads
Strategy 3: Update intersection planning policy		
• **Tactic 3.1 (Key Tactic):** Incorporate a safety-first approach to intersection planning. Encourage engineering analysis of safety features before exclusion of those options. Utilize MnDOT's adopted slogan of "Safety First, Safety Always" in intersection planning discussions.	• Engineering	• Safe Roads • Safe Speeds
• **Tactic 3.2 (Key Tactic):** Support legislation to improve intersection safety options, such as speed safety cameras or red light safety cameras.	• Enforcement	• Safe Speeds • Safe Road Users
• **Tactic 3.3:** Facilitate coordination between state, regional, and local agencies for intersection projects, and include participation of user groups.	• Engineering	• Safe Roads

Focus Area: Intersections	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 3.4:** Pursue enhanced analytics and data collection (such as analytics using video/radar detection) for intersection-based crashes and near-miss incidents.	• Engineering	• Safe Roads
Strategy 4: Reduce driver speeding to reduce the severity of intersection crashes		
• **Tactic 4.2:** Increase education and awareness about speeding and aggressive driving. Collaborate with public health partners to develop equitable and effective behavior change campaigns.	• Education	• Safe Speeds • Safe Road Users
• **Tactic 4.3:** Utilize enforcement to reduce speeding.	• Enforcement	• Safe Speeds • Safe Road Users

Focus Area: Lane Departure	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Design roadways to reduce the frequency and severity of lane departure crashes		
• **Tactic 1.1 (Key Tactic):** Design roadways to bring awareness to roadway edges and reduce the frequency of lane departure crashes, especially at high-risk locations or locations with a history of severe crashes. Highly effective examples include rumble strips and edge line markings.	• Engineering	• Safe Roads
• **Tactic 1.2 (Key Tactic):** Design edge of roadway to reduce the severity of lane departure crashes, especially at high-risk locations or locations with a history of severe crashes. Highly effective examples include maintaining clear zones, appropriate shoulder widths, cable barrier/other barriers, Safety Edge℠ installation, and appropriate slope design. Combining these treatments can increase the overall effectiveness of the treatments and lower crashes and severities.	• Engineering	• Safe Roads
Strategy 2: Design horizontal curves to reduce the frequency and severity of lane departure crashes		
• **Tactic 2.1 (Key Tactic):** Implement designs to improve curve visibility and reduce the frequency of lane departure crashes, especially at high-risk locations or locations with a history of severe crashes. Highly effective examples include rumble strips, enhanced edge line markings, chevrons/delineators, lighting, high friction surface treatment, and designing appropriate curve radii.	• Engineering	• Safe Roads
• **Tactic 2.2 (Key Tactic):** Design edge of roadway within curves to reduce the severity of lane departure crashes, especially at high-risk locations or locations with a history of severe crashes. Highly effective examples include clear zones, appropriate shoulder widths, cable barrier/other barriers, Safety Edge℠ installation, and appropriate slope design. Pair with high-visibility enforcement and education to maximize efficacy.	• Engineering	• Safe Roads

Strategy 3: Evaluate and implement new safety features and technologies		
• **Tactic 3.1:** Support new vehicle technologies, such as advanced driver assistance systems, which reduce severe lane departure crashes.	• Engineering	• Safe Vehicles • Safe Road Users
• **Tactic 3.2:** Implement ITS and other technologies to reduce severe lane departure crashes at high-risk locations or locations with a sustained crash pattern. Examples include sequential dynamic flashing chevrons, speed warning for sharp curves, changeable message signs and variable speed limits for inclement weather, and wrong way driving detection.	• Engineering	• Safe Roads • Safe Road Users

Focus Area: Impairment	**Four E's of Traffic Safety**	**Safe System Approach Element(s)**
Strategy 1: Strengthen DWI strategic planning and program operations.		
• **Tactic 1.1:** Create an impaired driving strategic plan drawing from the MN DWI Task Force initiatives, the three-year OTS Highway Safety Plan, and the 2022 Impaired Driving Program Assessment and involve Tribal Nations in the plan's development and implementation.	• Enforcement • Education • Engineering	• Safe Road Users • Safe Speeds • Safe Roads
• **Tactic 1.2:** (Key Tactic) Obtain performance feedback and evaluate the effectiveness and return on investment of Law Enforcement Liaisons (LEL) activities, and refine performance expectations, position descriptions, and on-going assessment process, as needed, to achieve the desired outputs and outcomes.	• Enforcement	• Safe Road Users • Safe Speeds
• **Tactic 1.3:** Convene a 2027 NHTSA Safety Program Assessment of the OTS Impaired Driving Program to identify strengths, opportunities for improvement, and resulting recommendations.	• Enforcement • Education	• Safe Road Users • Safe Speeds
Strategy 2: Reduce excessive drinking through responsible alcohol service, community outreach, and employer-based intervention programs.		
• **Tactic 2.1:** (Key Tactic) Enact state-level comprehensive social host liability statutes that extend social host liability to those who knowingly serve visibly intoxicated adults.	• Enforcement • Education	• Safe Road Users • Safe Speeds

Focus Area: Impairment	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 2.2:** Provide incentives for alcohol retailers to complete responsible server training, such as liability insurance discounts and use of proof of completion as a mitigating factor in alcohol license violation cases.	• Enforcement • Education	• Safe Road Users • Safe Speeds
• **Tactic 2.3:** Implement a per drink tax and dedicate a portion of the proceeds to prevention and treatment of alcohol and other substance abuse problems including impaired driving.	• Enforcement • Education	• Safe Road Users • Safe Speeds
• **Tactic 2.4:** Promote employer-sponsored Screening and Brief Intervention, assessment and treatment programs for employees identified with alcohol or substance use problems.	• Education	• Safe Road Users • Safe Speeds
• **Tactic 2.5:** (Key Tactic) Adopt the use of Screening, Brief Intervention and Referral for Treatment (SBIRT), at the time of arraignment, for all first-time DWI offenders.	• Enforcement • Education	• Safe Road Users • Safe Speeds
• Tactic 2.6 (Key Tactic) Promote social norming communication strategies to increase the perceived risk of impaired driving and expand media campaigns to emphasize drug impaired driving. Incorporate the use of medical personnel (e.g., emergency room doctors) to educate the public on the consequences of impaired driving.	• Enforcement • Education • EMS	• Safe Road Users • Safe Speeds
Strategy 3: Strengthen support for law enforcement to deter and remove impaired drivers.		
• **Tactic 3.1:** (Key Tactic) Based on evaluation results of Minnesota's roadside oral fluid testing pilot, refine operational procedures and processes, as needed, and expand the pilot to a fully adopted roadside test for drug-impaired driving.	• Enforcement	• Safe Road Users • Safe Speeds
• **Tactic 3.2:** (Key Tactic) Increase DWI Traffic Safety officers, supported by NHTSA grant funds to the DPS Office of Traffic Safety, for dedicated and sustained year-long impaired driving enforcement.	• Enforcement	• Safe Road Users • Safe Speeds

Focus Area: Impairment	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 3.3:** Strengthen the frequency of locally coordinated DWI saturation patrols using the Office of Traffic Safety's DWI Dashboard to identify high risk locations and time periods for impaired driving-related severe crashes.	• Enforcement • Education	• Safe Road Users • Safe Speeds
• **Tactic 3.4:** Recruit additional Drug Recognition Experts (DREs) especially in counties or jurisdictions with no DREs.	• Enforcement	• Safe Road Users • Safe Speeds
Strategy 4: Strengthen DWI sanctions as well as the prosecution and adjudication of DWI offenders.		
• **Tactic 4.1:** (Key Tactic) Strengthen the ignition interlock device (IID) law to apply to all offenders, including first time offenders and require the use of IID for refusals.	• Enforcement	• Safe Road Users • Safe Speeds
• **Tactic 4.2:** Enact legislation to impose immediate driver license sanctions for the impaired presence of marijuana or any amount of other illegal substances.	• Enforcement	• Safe Road Users • Safe Speeds
• **Tactic 4.3:** Enact enhanced penalties for multiple impairing substances or polydrug use while driving.	• Enforcement	• Safe Road Users • Safe Speeds
• **Tactic 4.4:** Implement a formal program, such as pay incentives or professional growth opportunities, designed to attract and retain experienced DWI prosecutors.	• Enforcement • Education	• Safe Road Users
• **Tactic 4.5:** (Key Tactic) Increase the number of DWI Courts in Minnesota to strengthen repeat DWI offender monitoring and supervision and reduce recidivism.	• Enforcement • Education	• Safe Road Users

Focus Area: Impairment	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 4.6:** Implement an impaired driver tracking system beginning with the traffic stop and ending with completion of all requirements to provide DWI data needed for countermeasure system improvements.	• Enforcement	• Safe Road Users
Strategy 5: Public awareness campaigns to reduce drugged-impaired driving.		
• **Tactic 5.1** Secure funding for and conduct public education and outreach campaign on cannabis use and drugged-impaired driving.	• Enforcement • Education	• Safe Road Users

Focus Area: Unbelted	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve data quality to strengthen problem identification of unrestrained occupants		
• **Tactic 1.1:** Conduct and communicate results of data-driven analysis of the increased injury severity of unbelted occupants in a traffic crash.	• Education • EMS	• Safe Road Users • Post-Crash Care
• **Tactic 1.2:** Conduct and strengthen Minnesota TZD Regional seat belt use observation survey through utilizing a consistent annual survey methodology to enable regional and state-wide observation survey results.	• Education	• Safe Road Users
• **Tactic 1.3 (Key Tactic):** Expand annual seat belt use observation survey to include observational child safety seat use.	• Education	• Safe Road Users
• **Tactic 1.4:** Expand existing Triennial Minnesota Student Survey (MSS) to include traffic safety-related behaviors and opinions.	• Education	• Safe Road Users

Focus Area: Unbelted	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 1.5 (Key Tactic):** Adopt use of the National Digital Car Seat Check Form by Minnesota Child Passenger Safety Technicians for all State and federal funded activities to improve statewide data collection, tracking, and analysis.	• Education	• Safe Road Users
Strategy 2: Examine allocation of resources to strengthen seat belt use		
• **Tactic 2.1 (Key Tactic):** Review funding and resource allocations for seat belt programs and child passenger safety programs to ensure the allotments for each are based on thorough problem identification and sound cost/benefit analysis.	• Education	• Safe Road Users
Strategy 3: Strengthen the enforcement and monitoring of unrestrained occupants and the adjudication of citations issued		
• **Tactic 3.1:** Conduct and monitor enhanced high-visibility statewide seat belt enforcement events supported by paid and earned media with emphasis on locations and timeframes demonstrating greater risk of unrestrained vehicle occupants.	• Enforcement • Education	• Safe Road Users
• **Tactic 3.2 (Key Tactic):** Identify alternative funding source to increase support for localized seat belt enforcement saturations addressing known high-risk locations and time periods.	• Enforcement • Education	• Safe Road Users
• **Tactic 3.3 (Key Tactic):** Conduct judicial outreach and education to promote the consistent adjudication of seat belt and child passenger seat citations.	• Enforcement • Education	• Safe Road Users
• **Tactic 3.4:** Fund a Minnesota pilot program coupled with media outreach for the use of telematic monitoring systems to provide real-time feedback on high-risk driving behavior to encourage mid-driving correction and crash injury prevention. **Or** • **Tactic 3.4:** Adopt a court-ordered behavioral telematics program for serious traffic offenders.	• Education • Enforcement	• Safe Road Users
Strategy 4: Strengthen public outreach and training to increase safety belt and child restraint use		
• **Tactic 4.1 (Key Tactic):** Utilize a single state-wide belt use and enforcement message during national Click It or Ticket campaigns, balanced with sustained localized social norming messaging throughout the year addressing higher-risk populations within areas and timeframes demonstrating low belt use.	• Enforcement • Education	• Safe Road Users

Focus Area: Unbelted	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 4.2:** Evaluate media strategies to ensure sufficient frequency and reach among the target audience to increase the probability of behavior change.	• Education	• Safe Road Users
• **Tactic 4.3:** Apply best practice models of effective school and community-based outreach methods that target teen drivers and incorporate results in teen-focused TZD events and materials.	• Education	• Safe Road Users
• **Tactic 4.4:** Expand medical community and school messaging to increase public understanding of the risk of increased injury severity for failure to wear seat belts or to properly restrain children.	• Education • Emergency Medical Services	• Safe Road Users
• **Tactic 4.5:** Require public agencies to align with best practice for employer traffic safety policies, including seat belt use, and to communicate employee expectations and consequences for non-compliance.	• Education	• Safe Road Users
• **Tactic 4.6:** Increase car seat funding for car seats and for training for families, caregivers and childcare professionals on the proper use of child safety restraints.	• Education	• Safe Road Users

RISING CONCERN FOCUS AREAS: UNLICENSED DRIVERS, MOTORCYCLISTS, PEDESTRIANS

Focus Area: Unlicensed Drivers	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Enhance law enforcement contact		
• **Tactic 1.1:** Strengthen frequency of equitable law enforcement contact with illegal drivers through stepped-up impaired driving, speed, distracted and seat belt enforcement.	• Enforcement • Education	• Safe Road Users • Safe Speeds
Strategy 2: Employ sanctions to identify and prevent invalid licensed driving		
• **Tactic 2.1 (Key Tactic):** Require the use of ignition interlock devices by all DUI offenders to eliminate invalid license driving during the license sanction period.	• Enforcement • Education	• Safe Road Users •
• **Tactic 2.2:** Strengthen law enforcement use of license plate and vehicle sanctions to prevent unlicensed and invalid licensed drivers from continuing to drive.	• Enforcement • Education	• Safe Road Users
• **Tactic 2.3 (Key Tactic):** Conduct scan of best practices of other states to address unlicensed drivers, including limiting license suspensions to dangerous driving behaviors only. Use these findings to develop refined SHSP unlicensed driver recommendations.	• Enforcement • Education	• Safe Road Users
Strategy 3: Improve real-time driver monitoring and feedback to promote safe driving for inexperienced drivers		
• **Tactic 3.1 (Key Tactic):** Fund pilot program coupled with media outreach for the use of telematic monitoring systems to provide real-time feedback on high-risk driving behavior to encourage mid-driving correction and crash prevention.	• Education	• Safe Road Users • Safe Speed
Strategy 4: Increase driver awareness of and improve driver education and training for all drivers		
• **Tactic 4.1:** Incorporate unlicensed driving into screening and brief intervention approaches in emergency departments, trauma centers, and social service settings to increase motivation to obtain drivers training, a driver's license, and to connect drivers to training and licensing services.	• Education • Emergency Medical Response	• Safe Road Users
• **Tactic 4.2:** Promote outreach and information resources on driver training and licensing procedures to diverse communities and among younger, inexperienced drivers.	• Education	• Safe Road Users
• **Tactic 4.3 (Key Tactic):** Create a robust driver education program and require for all new drivers (including those 18 and above).	• Education	• Safe Road Users • Safe Speeds

Focus Area: Unlicensed Drivers	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 4.4:** Require recurrent on-line driver refresher course every 4 or 8 years, concurrent with driver's 4-year license renewal.	• Education	• Safe Road Users • Safe Speeds
• **Tactic 4.5:** Dedicate and sustain funding and providers for driver education classroom and skills training for all new drivers (including those age 18 and above).	• Education	• Safe Road Users • Safe Speeds

Focus Area: Motorcyclists	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Strengthen public awareness and education to improve motorcycle safety		
• **Tactic 1.1 (Key Tactic):** Promote rider understanding of the safety benefits of high-visibility and protective gear and safe riding behaviors, such as wearing helmets and all personal protective gear, wearing highly visible clothing, ensuring the visibility of the motorcycle, understanding the risks of impaired riding, and new motorcycle licensing/riding laws.	• Education	• Safe Road Users
• **Tactic 1.2 (Key Tactic):** Promote peer-to-peer outreach and identify and equip key influencers of motorcycle advocacy groups and clubs with key safety messages and talking points to strengthen social norms and shared helmet-use behavior.	• Education	• Safe Road Users
• **Tactic 1.3:** Develop and distribute updated informational resources for drivers on sharing the road with motorcycles, emphasizing the need for vigilance at intersections and curves.	• Education	• Safe Road Users
• **Tactic 1.4:** Encourage experienced motorcycle riders to take the Intermediate Rider Course as refresher training.	• Education	• Safe Road Users
• **Tactic 1.5:** Include injury outcome data analysis and other evidence-based information about the risk of increased injury severity for motorcycle riders not wearing head protection when involved in a traffic crash.	• Education • Emergency Medical Response	• Safe Road Users
Strategy 2: Improve motorcycle safety-related policies		
• **Tactic 2.1 (Key Tactic):** Convene a 2027 NHTSA Safety Program Assessment of the OTS Motorcycle Safety Program to identify strengths, weaknesses and opportunities for improvement.	• Education • Enforcement • Engineering	• Safe Road Users • Safe Speeds • Safe Roads

Focus Area: Motorcyclists	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 2.2 (Key Tactic):** Monitor crashes that may be a result of the Minnesota law in effect 7/1/25 allowing motorcyclists to lane split. Assess crash performance associated with the law, and use findings to guide modifications to the law if needed.	• Education • Enforcement	• Safe Road Users
• **Tactic 2.3:** Enact universal helmet-use law for all riders.	• Enforcement • Education	• Safe Road Users
• **Tactic 2.4 (Key Tactic):** Require motorcycle endorsement holders to wear a helmet for the first two years after receiving their endorsement. This applies regardless of age, and any passengers during that time must also wear a helmet.	• Enforcement • Education	• Safe Road Users
Strategy 3: Strengthen enforcement to discourage motorcycle rider high-risk behaviors		
• **Tactic 3.1:** Implement comparing vehicle registration and driver licensing files to detect and encourage unlicensed riders to obtain a motorcycle endorsement	• Education • Enforcement	• Safe Road Users
• **Tactic 3.2:** Expand utilization of vehicle impoundment or forfeiture for substance-impaired and/or high-speed riders.	• Enforcement	• Safe Road Users • Safe Speeds

Focus Area: Pedestrians	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve road design and maintenance for pedestrian safety		
• **Tactic 1.1 (Key Tactic):** Improve intersection and roadway design to provide safer walking and crossings for pedestrians, especially at high-risk locations or locations with high pedestrian/cyclist activity. Highly effective examples include installing sidewalks, enhanced crosswalk markings and signs, leading pedestrian intervals, median refuge islands, 4-lane to 3-lane conversions, and curb extensions.	• Engineering	• Safe Roads • Safe Speeds
• **Tactic 1.2 (Key Tactic):** Provide adequate and safe midblock pedestrian crossing facilities. Highly effective examples include pedestrian hybrid beacons or rectangular rapid flashing beacons, curb bump outs, median refuge islands, lighting to increase pedestrian visibility, and enhanced pavement markings and signs.	• Engineering	• Safe Roads • Safe Speeds
• **Tactic 1.3:** Provide an adequate network of pedestrian facilities separated from vehicular traffic in locations where there is pedestrian demand or where land use and other conditions show potential suitability for bicycling using MnDOT's SPACE tool. Consider Safe Routes to School infrastructure improvements in locations near schools. Incentivize contractors to maintain pedestrian/bike routes during road construction.	• Engineering	• Safe Roads

• **Tactic 1.4:** Establish policies to maintain pedestrian facilities for all four seasons, including proper snow and ice removal. Expedite maintenance of sidewalks and curb ramps to deter people from walking or rolling in the road. Incorporate pedestrian facility design and maintenance as part of the planning process. Evaluate MnDOT's local agency maintenance agreement requirements and explore opportunities to assume responsibility or offer financial resources so that maintenance isn't a barrier for local agencies planning and building pedestrian facilities.	• Engineering	• Safe Roads • Safe Road Users
Strategy 2: Promote policy changes that reduce severe pedestrian crashes		
• **Tactic 2.1 (Key Tactic):** Improve pedestrian-related data collection to identify trends and numbers with respect to health, law, plans, and policies. Data types include pedestrian volumes, vehicle speeds, pedestrian crashes, near miss data at locations with safety concerns or limited crash history, and status of existing and planned pedestrian facilities.	• Engineering	• Safe Roads • Safe Road Users
• **Tactic 2.2:** Develop pedestrian plans and Complete Streets plans at regional and local levels. Utilize the Minnesota GreenStep Cities & Tribal Nations Program, MnDOT's Active Transportation Assistance program, and Office of Sustainability and Public Health for funding, training, and technical support.	• Engineering	• Safe Roads
• **Tactic 2.3:** Increase funding for pedestrian facilities at the state, regional, and local levels, including planning efforts such as Complete Streets. Pair with an increase in funding for targeted pedestrian safety campaigns that amplify the effectiveness of engineering.	• Education • Engineering	• Safe Roads • Safe Road Users
• **Tactic 2.4:** Explore school bus stop arm violation camera enforcement.	• Enforcement	• Safe Road Users
Strategy 3: Increase education and awareness about pedestrian safety for all road users		
• **Tactic 3.1 (Key Tactic):** Conduct high-profile pedestrian safety education campaigns with increased media coverage for all road users and all professionals that contribute to road safety. Include easy-to-understand information on Safe Routes to School, Walk! Bike! Fun!, Vision Zero programs, and pedestrian-related laws. Collaborate with public health agencies or programs such as the Statewide Health Improvement Program to develop equitable and effective campaigns. Pair with high-visibility enforcement to maximize efficacy.	• Education • Enforcement	• Safe Road Users
• **Tactic 3.2:** Develop local/community partnerships to encourage a culture of pedestrian safety among all road users. Engage with local and regional planning staff to build a culture of pedestrian safety within the agencies that manage roads. Coordinate and develop relationships between local agencies and advocacy groups, parent-teacher organizations, universities, chambers of commerce, and underserved communities/communities with high pedestrian demand.	• Education	• Safe Road Users

CONNECTED FOCUS AREAS: OLDER DRIVERS, YOUNGER DRIVERS, COMMERCIAL VEHICLES, BICYCLISTS, WORKZONES, TRAINS

Focus Area: Older Drivers	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Strengthen the reporting/referral and assessment of at-risk older drivers		
• **Tactic 1.1:** Expand law enforcement officers' screening of at-risk older drivers using the Driver Orientation Screen for Cognitive Impairment (DOSCI) and systematize using the officers' E-Charging System.	• Enforcement • Education	• Safe Road Users
• **Tactic 1.2 (Key Tactic):** Promote awareness and accessibility of MN DPS's on-line mechanism for medical staff, family members, or friends to notify DPS Driver and Vehicle Services (DVS) licensing staff of at-risk drivers for an assessment of the driver's ability to safely drive.	• Enforcement • Education	• Safe Road Users
• **Tactic 1.3:** Review and confirm screening protocol and training for DVS licensing personnel to effectively identify drivers demonstrating a decline in physical or cognitive functioning.	• Enforcement • Education	• Safe Road Users
• **Tactic 1.4:** Examine procedures for assessing medical fitness to drive and ensure medical review practices align with Driver Fitness Medical Guidelines (National Highway Traffic Safety Administrations (NHTSA) and the American Association of Motor Vehicle Administrators (AAMVA).	• Enforcement • Education	• Safe Road Users
Strategy 2: Strengthen licensing practices of at-risk older drivers to extend driving while enhancing safety		
• **Tactic 2.1 (Key Tactic):** Conduct comprehensive review and adoption of strengthened licensing policies and practices for at-risk older drivers to reflect best practice and proven approaches, such as: periodic testing of driving skills, mandatory age and more frequent in-person license renewal, and maximizing restricted licenses (e.g., geographic, time of day, high speed).	• Enforcement • Education	• Safe Road Users

Focus Area: Older Drivers	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 2.2:** Adopt required road test at age 75 and retest every 4 years for license renewal.	• Enforcement • Education	• Safe Road Users
Strategy 3: Equip older drivers to plan for and adopt safe driving practices		
• **Tactic 3.1 (Key Tactic):** Require recurrent on-line driver refresher course every 4 years, concurrent with driver's 4-year license renewal.	• Education	• Safe Road Users
• **Tactic 3.2:** Incorporate into driver refresher course or an on-line resource for drivers to learn about new infrastructure features, growing road safety issues, vehicle safety technologies, in-vehicle technology distractions, and emerging modes of transportation.	• Education	• Safe Road Users
• **Tactic 3.3:** Promote DPS-approved crash prevention/defensive driving courses for drivers age 55 or older. Promote the use of CarFit programs to promote self-awareness of safety, comfort and mobility needs.	• Education	• Safe Road Users
• **Tactic 3.4 (Key Tactic):** Establish an on-line "one-stop" resource to guide older drivers and their family/friends on navigating changing driving needs and available resources, such as: assessing driving capabilities and limitations, skill development, locating CarFit programs, available driving courses, alternative safe mobility options, licensing restrictions for safe driving, and voluntarily limit driving to reduce crash risk.	• Education	• Safe Road Users
Strategy 4: Use roadway design that meets the needs of older drivers		
• **Tactic 4.1:** Use enhanced visibility measures and lighting to accommodate older drivers. Highly effective examples include retroflective signal back plates and stop signposts, high-visibility or oversized signs, highly legible design elements, enhanced pavement markings, raised pavement markings, curve delineation, and LED stop signs/flashing beacon stop signs.	• Engineering	• Safe Roads
• **Tactic 4.2:** Use geometric improvements to accommodate older drivers. Highly effective examples include removing skew at intersections, increasing the widths of turn lanes and offsetting turn lanes, using appropriate turning radii and curve radii, and incorporating acceleration and deceleration lanes.	• Engineering	• Safe Roads

Focus Area: Younger Drivers	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Strengthen younger driver program planning and coordination.		
• **Tactic 1.1:** (Key Tactic) Revitalize the Teen Driver Safety Commissioner's Advisory Task force to provide oversight, partner coordination, and input to DPS with the goal of reducing teen driver severe traffic injuries.	• Enforcement • Education	• Safe Road Users • Safe Speeds • Safe Roads
• **Tactic 1.2:** Convene a NHTSA Safety Program Assessment of the younger driver traffic safety program to identify strengths, opportunities for improvement, and resulting recommendations.	• Enforcement • Education	• Safe Road Users • Safe Speeds
Strategy 2: Engage young drivers to improve younger driver safety.		
• **Tactic 2.1:** (Key Tactic) Expand the implementation of Minnesota's Impact Teen Drivers (ITD) Program to engage, educate and empower teens and their influencers on the dangers of high-risk motor vehicle driver and passenger behaviors.	• Enforcement • Education • EMS	• Safe Road Users • Safe Speeds
• **Tactic 2.2:** (Key Tactic) Explore partnership with the DPS Driver and Vehicle Services (DVS), Office of Traffic Safety (OTS), and the Department of Education to incorporate youth traffic safety topics and crash data into classroom curricula and student engagement exercises.	• Education	• Safe Road Users
Strategy 3: Strengthen parent/guardian empowerment to engage with and monitor teen drivers.		
• **Tactic 3.1:** (Key Tactic) Increase community participation in adopting the Point of Impact: Teen Driver Safety Parent Awareness Program to strengthen parents' role and engagement in their teen's safe driving development.	• Enforcement • Education • EMS	• Safe Road Users • Safe Speeds • Post-Crash Care
Strategy 4: Strengthen Graduated Driver Licensing safety provisions for young drivers.		

Focus Area: Younger Drivers	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 4.1:** Strengthen teen driver provisional license nighttime safety provisions to support nationally-recommended timeframes for nighttime driving to reduce severe crash risk while gaining driving experience.	• Enforcement • Education	• Safe Road Users
• **Tactic 4.2:** Strengthen teen driver provisional license passenger safety provisions to support nationally-recommended passenger allowances to reduce severe crash risk while gaining driving experience.	• Enforcement • Education	• Safe Road Users
Strategy 5: Publicize, enforce, and adjudicate young driver safety laws.		
Tactic 5.1: Strengthen enforcement of and supporting media outreach for GDL, zero-tolerance underage drinking and driving/Not a Drop Law, and primary seat belt use laws.	• Enforcement • Education	• Safe Road Users
• **Tactic 5.2:** (Key Priority) Increase parent, law enforcement, prosecutors', and judges' understanding and adjudication of Graduated Driver Licensing safety provisions for younger drivers.	• Enforcement • Education	• Safe Road Users
• **Tactic 5.3:** Reinstitute youth-oriented driver improvement clinics to support teen traffic violators age 18 and under to understand and correct high-risk driving practices.	• Enforcement • Education	• Safe Road Users
Strategy 6: Strengthen young and inexperienced driver education and training.		
• **Tactic 6.1:** (Priority Tactic) Create a robust driver education program and require for all new drivers (including those 18 and above).	• Education	• Safe Road Users • Safe Speeds
• **Tactic 6.2:** Strengthen the use of younger driver crash data and trends into driver education curricula and public outreach focused on younger drivers.	• Education	• Safe Road Users • Safe Speeds
• **Tactic 6.3:** Expand 2021 Minnesota Multicultural Adult Driver Education Project pilot program supporting the education of multicultural community members age 18 or older to reduce severe crashes involving drivers and members of different cultural communities.	• Education	• Safe Road Users

Focus Area: Commercial Vehicles	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve enforcement for commercial vehicles		
• **Tactic 1.1:** Improve enforcement of unsafe commercial vehicles and their operators and provide training for local law enforcement focused on commercial vehicles.	• Enforcement	• Safe Road Users
• **Tactic 1.2:** Encourage more effective communication about motor vehicle enforcement between law enforcement agencies and commercial vehicle enforcement personnel.	• Enforcement	• Safe Road Users • Safe Vehicles
• **Tactic 1.3:** Provide additional law enforcement at commercial vehicle inspection sites to assist with driver impairment checks.	• Enforcement	• Safe Road Users
Strategy 2: Plan, design, and maintain roads and rest areas for commercial vehicle safety.		
• **Tactic 2.1:** Design and implement geometric features that reduce severe crashes involving commercial vehicles. Examples include truck climbing lanes and acceleration/deceleration lanes.	• Engineering	• Safe Roads
• **Tactic 2.2:** Address the statewide truck parking shortage by working with public and private sector partners to identify truck parking needs, providing additional designated parking facilities or coordinating with commercial properties to support auxiliary truck parking, and providing additional information systems to inform truck drivers of available spaces.	• Engineering	• Safe Roads
Strategy 3: Increase education on commercial vehicle safety		
• **Tactic 3.1:** Provide more public awareness for blind spot dangers for trucks, such as the No Zone campaign.	• Education	• Safe Road Users
• **Tactic 3.2:** Support education for truck drivers and mechanics about the federal Whistleblower Protection Act. Encourage reporting of companies that pressure employees to break federal commercial vehicle laws, including hours of service.	• Education	• Safe Road Users

Focus Area: Commercial Vehicles	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 3.3:** Educate trucking association members on work zone safety.	• Education	• Safe Road Users
Strategy 4: Support new commercial vehicle technology		
• **Tactic 4.1:** Promote truck platooning safety benefits and opportunities to freight groups and provide resources for truck platooning plan creation and approval.	• Vehicles	• Safe Vehicles
• **Tactic 4.2:** Support education and incorporation of technologies on commercial vehicles and install technologies in MnDOT or state heavy vehicle fleets to reduce severe crashes. Examples of technologies include speed limiters, on-board impairment detection, lateral side guards, and high-vision cabs.	• Vehicles	• Safe Vehicles
• **Tactic4.3:** Improve freight-related data collection (e.g., truck counts) and use innovative sources to help make data-driven safety decisions. Increase public visibility of freight data.	• Engineering	• Safe Roads • Safe Road Users
• **Tactic 4.4:** Support the implementation and advancement of truck parking information management systems, work zone in-cab safety messaging, and other information systems.	• Vehicles	• Safe Vehicles • Safe Road Users

Focus Area: Bicyclists	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve road design and maintenance for bicyclist safety.		
• **Tactic 1.1:** Provide dedicated facilities along roadways for bicyclists to use safely, physically separated from vehicle traffic. Highly effective examples include installing shared use paths, neighborhood greenways, wider shoulders (rural roads), protected or separated bike lanes, green pavement for bike facilities, bike boxes, and bike signal heads at intersections. (KEY TACTIC)	• Engineering	• Safe Roads

Focus Area: Bicyclists	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 1.2:** On lower volume, low-speed roads, use traffic calming measures to reduce vehicle speeds and allow for safe shared usage of the road. Highly effective examples include lane width reduction, speed humps, chicanes, marked shared lanes (sharrows), and urban landscaping.	• Engineering	• Safe Roads • Safe Speeds
• **T1.3:** Provide an adequate bike network separated from vehicular traffic where there is biking demand or where land use and other conditions show potential suitability for bicycling using MnDOT's SPACE tool. Consider Safe Routes to School infrastructure improvements in locations near schools. Incentivize contractors to maintain pedestrian/bike routes during road construction.	• Engineering	• Safe Roads
• **Tactic 1.4:** Establish policies to maintain bike facilities for all four seasons, including proper snow and ice removal. Expedite maintenance of bike lanes and side paths to deter people from riding in vehicle lanes. Incorporate bike facility design and maintenance as part of the planning process. Evaluate MnDOT's current local agency maintenance agreement requirements and opportunities to assume responsibility or offer financial resources so that maintenance isn't a barrier for local agencies planning and building cycling facilities.	• Engineering	• Safe Roads • Safe Road Users
Strategy 2: Promote policy change that reduces severe bicycle crashes.		
• **Tactic2.1:** Improve bicycle-related data collection to identify trends and numbers for health, law, plans, and policies. Data types include bicycle ownership by geographic area, bicycle volumes, vehicle speeds, bicycle crashes and near misses, bicycle facilities, and inventory of outreach and planning efforts. (KEY TACTIC)	• Engineering	• Safe Roads • Safe Road Users
• **Tactic 2.2:** Develop bicycle plans and Complete Streets plans at regional and local levels. Utilize the Minnesota GreenStep Cities & Tribal Nations Program, MnDOT's Active Transportation Assistance program, and Office of Sustainability and Public Health for funding, training, and technical support.	• Engineering	• Safe Roads
• **Tactic 2.3:** Incorporate road speed context into design guidance so bicycle facilities are physically separated from vehicle traffic traveling at least 35 mph.	• Engineering	• Safe Roads
• **Tactic 2.4:** Increase funding for bicyclist facilities at the state, regional, and local levels, including planning efforts such as bicycle plans or Complete Streets. Pair with an increase in funding for targeted bicycling safety campaigns that amplify the effectiveness of engineering.	• Education • Engineering	• Safe Roads • Safe Road Users
• **Tactic 2.5:** Evaluate safety data and design needs for electric and electric-assist bicycles and how those needs may differ from traditional bicycles.	• Vehicles	• Safe Roads

Focus Area: Bicyclists	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 3: Increase education and awareness for drivers and cyclists.		
• **Tactic 3.1:** Conduct high-profile bicyclist safety education campaigns with increased media coverage for all road users and all professionals that contribute to road safety. Include easy-to-understand information on Safe Routes to School, Walk! Bike! Fun!, Vision Zero programs, helmet education campaigns, and bike-related laws. Collaborate with public health agencies or programs such as the Statewide Health Improvement Program to develop equitable and effective campaigns. Pair with high-visibility enforcement to maximize efficacy. (KEY TACTIC)	• Education	• Safe Road Users
• **Tactic 3.2:** Develop local/community partnerships to encourage a culture of bicyclist safety, such as nighttime visibility, helmet usage, and chaperoned group rides to school (bike bus). Engage with local and regional planning staff to build a culture of bicyclist safety within the agencies that manage roads. Coordinate and develop relationships between local agencies and advocacy groups, parent-teacher organizations, universities, chambers of commerce, and underserved communities/communities with high cycling demand.	• Education	• Safe Road Users

Focus Area: Work Zones	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Reduce speeding within work zones.		
• **Tactic 1.1:** (Key Tactic) Use appropriate enforcement and increase visible enforcement presence to reduce speeding and distracted driving in work zones, especially during peak travel periods. Develop and deploy strategies to best enforce speed limits in work zones.	• Enforcement	• Safe Road Users
• **Tactic 1.2:** (Key Tactic) Conduct pilot project to test automated camera enforcement in work zones. Install automated/enhanced speed enforcement or camera-assisted enforcement in work zones. After the pilot project is finished, encourage legislative changes to allow for automated camera enforcement in work zones.	• Enforcement	• Safe Road Users
• **Tactic 1.3:** Encourage drivers to drive slower in work zones through built environment indicators. Examples include dynamic speed feedback signs, "Workers Present" speed limits in work zones during times when workers are present, and traffic calming geometric design such as lane width reduction, lane shifts, and speed humps.	• Engineering	• Safe Roads • Safe Road Users
Strategy 2: Improve work zone notifications and education.		
• **Tactic 2.1:** Increase public education and training for driving in work zones. Create greater public awareness about moving over for disabled vehicles, law enforcement, maintenance vehicles, etc. (Ted Foss Law).	• Education	• Safe Road Users

Focus Area: Work Zones	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 2.2:** Use consistent and appropriate advance warning signs and temporary transverse rumble strips to alert drivers of work zones and dynamic message signs for changing work zone conditions, travel times, and incidents within work zone.	• Engineering	• Safe Road Users
• **Tactic 2.3:** Establish best practices of radar-based audible and visible warning systems to warn workers of speeding vehicles. Consider installing warning systems within work zones.	• Engineering	• Safe Road Users
• **Tactic 2.4:** Work with phone applications to distribute work zone alerts to drivers when approaching work zones.	• Education	• Safe Road Users
Strategy 3: Use technologies and innovative work zone planning techniques to improve work zone safety.		
• **Tactic 3.1:** Displace worker schedules and vehicle traffic in time when possible. Examples include changing traditional work schedules based on traffic trends, avoiding lane closures when excessive queuing could occur, and using full road closures to avoid traffic conflicts and accelerate work where appropriate.	• Engineering	• Safe Roads • Safe Road Users
• **Tactic 3.2:** Maintain direct and accessible pedestrian routes with Alternative Pedestrian Routes and Temporary Pedestrian Access Routes and provide clear and direct bicycle detour routes. Protect pedestrian routes if they are detoured into the roadway.	• Engineering	• Safe Roads • Safe Road Users
• **Tactic 3.3:** Implement countermeasures to limit exposure between vehicle and workers. Examples include flagger devices, temporary signals, and (portable) rumble strips to notify drivers of work zone intrusion.	• Engineering	• Safe Roads

Focus Area: Trains	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Design at-grade railroad crossings to reduce severe crashes between trains and road users.		

Focus Area: Trains	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 1.1:** Use gated protection with warning devices and trapped vehicle detection on high-speed rail sections at appropriate crossings. Include strategies which make it difficult for motorists to drive around gates, such as median islands on the approaches to rail grade crossings. (KEY TACTIC)	• Engineering	• Safe Roads
• **Tactic1.2:** Close or grade-separate unsafe or closely spaced grade crossings to vehicular traffic. (KEY TACTIC)	• Engineering	• Safe Roads
• **Tactic1.3:** Consider replacing stop signs at grade crossings with yield signs to reduce overuse of stop signs. If stop signs continue to be used, consider developing new guidelines for their application based on minimum roadway and train volumes and available sight distance.	• Engineering	• Safe Roads
• **Tactic 1.4:** Improve crossing geometry to remove skew between rails and roads to improve crossing sight distance and to remove humped crossings to reduce the risk of heavy vehicles getting stuck on the crossing.	• Engineering	• Safe Roads
• **Tactic 1.5:** Design crossings to improve pedestrian and bicyclist awareness and safety. Examples include 'Another Train Coming' warning signs, pedestrian gates, appropriate warning times for pedestrians, and additional flashing warning light masts.	• Engineering	• Safe Roads • Safe Road Users
Strategy 2: Increase awareness of rail crossing risks and education on rail crossing safety and laws.		
• **Tactic 2.1:** Conduct high-profile rail crossing safety education campaigns with increased media coverage targeted at all road users. Examples include Operation Lifesaver, See Track Think Train, campaigns regarding crossing laws, and suicide prevention initiatives.	• Education	• Safe Road Users
• **Tactic 2.2:** Engage freight groups to educate truck drivers about rail crossing risks and how to respond if their truck gets stuck on a rail crossing.	• Education	• Safe Road Users
Strategy 3: Improve enforcement at rail crossings.		
• **Tactic 3.1:** Target enforcement at rail crossings with known safety issues in order to discourage drivers from stopping on tracks and encourage drivers to heed warning devices.	• Enforcement	• Safe Road Users
• **Tactic 3.2:** Determine appropriate fines for gate violations and post "Railroad Gate Violation $XX Fine" warning signs at rail crossings with known safety issues.	• Enforcement • Engineering	• Safe Road Users

SUPPORT SYSTEMS FOCUS AREAS: TRAFFIC SAFETY CULTURE, EMS AND TRAUMA SYSTEMS, VEHICLE SAFETY ENHANCEMENTS, MANAGEMENT SYSTEMS, DATA MANAGEMENT

Focus Area: Traffic Safety Culture	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve communication and coordination between disciplines, agencies, and the public.		
• **Tactic 1.1:** Continue to share fatal and serious injury crash report details with the multi-disciplinary fatal review committee. Encourage localities without a review committee to form a multi-disciplinary group.	• Other	•
• **Tactic 1.2:** Increase coordination and collaboration efforts between zero-fatality programs in the state, such as Toward Zero Deaths (TZD) committees or Vision Zero cities.	• Other	•
• **Tactic 1.3:** Develop a Toward Zero Deaths communications/marketing plan and include consistent monthly communications and positive social norming.	• Education	• Safe Road Users
• **Tactic 1.4:** Build safety culture around understanding of the Safe System Approach and what it means to different stakeholders. Utilize the adopted slogan of "Safety First, Safety Always" in coordination between stakeholders.	• Other	•
Strategy 2: Invest in new and/or updated safety initiatives, outreach, studies, and resources.		
• **Tactic 2.1:** Restart the Traffic Safety Culture Task Force. Initial projects may include participation in the traffic safety culture pooled fund study, the work zone safety campaign (saturated positive culture campaign), and Department of Natural Resources (DNR) education about ATV/UTV safety and requirements. Operationalize lessons learned from the Park Rapids pilot project to implement a statewide program.	• Education	• Safe Road Users
• **Tactic 2.2:** Initiate data collection and analysis to identify high priority traffic safety risks facing Minnesota's diverse and underserved populations. Use data to support directed outreach to these communities.	• Education	• Safe Road Users
• **Tactic 2.3:** Use outreach methods for contacting diverse and underserved communities, including continuing the Tribal Traffic Safety Summit, initiating tribal traffic safety roundtables, and using non-English speaking law enforcement officers to talk with students whose primary language isn't English.	• Education	• Safe Road Users

Focus Area: Traffic Safety Culture	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 2.4:** Continue the Impact Teen Driver program to educate high schoolers who can't afford or don't take Drivers Education.	• Education	• Safe Road Users
• **Tactic 2.5:** Complete an evaluation/survey of drivers to measure traffic safety culture. Use previous evaluation from 2015 as baseline to measurement. Research or complete literature review to identify impacts from COVID-19 on safe driving culture.	• Education	• Safe Road Users

Focus Area: EMS and Trauma Systems	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Improve post-crash care through innovative treatments and technology		
• **Tactic 1.1:** Work with the Physician's Advisory Council to examine the benefits of implementing prehospital blood transfusions. Consider the need to train paramedics to perform prehospital blood transfusions and coordinate with blood banks to use supply efficiently.	• EMS	• Post Crash Care
• **Tactic 1.2:** Integrate emerging technology such as Automated Incident Detection, FIRST NET communications resources for first responders, Next Gen 911 digital upgrades, and adding rural internet such as Starlink on ambulances into traffic incident management.	• EMS	• Post Crash Care
• **Tactic 1.3:** Train state employees such as Freeway Incident Response Safety Team (FIRST) truck drivers on medical interventions such as control of bleeding. Utilize the Stop the Bleed program for training material.	• EMS	• Post Crash Care
• **Tactic 1.4:** Consider using telematics data to issue early notifications and supporting information for crash response. "Closest to dispatching" (CTD) technology uses real time EMS vehicle location data to identify which vehicle to dispatch based on incident location.	• EMS	• Post Crash Care
Strategy 2: Upgrade EMS systems for efficiency and resilience		
• **Tactic 2.1:** Apply for grant funds, such as the Preventing Roadside Death program, which will support the implementation of EMS improvements. Encourage collaboration between EMS and their Metropolitan Planning Organizations (MPOs) to apply for funding through the Safe Streets and Roads for All (SS4A) grant program. Review potential solutions to funding and reimbursement challenges for EMS services.	• EMS	• Post Crash Care
• **Tactic 2.2:** Expand the southwestern Minnesota rural telemedicine pilot to other rural areas to improve post-crash, pre-hospital care and provide peer-to-peer support between medics and first responders in the field and physicians, paramedics, and/or nurses in the hospital.	• EMS	• Post Crash Care

Focus Area: EMS and Trauma Systems	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 2.3:** Analyze data (i.e. over triage and under triage in the field, compliance with state law on where patients are transported) to identify areas of improvement. Share data and resources with the EMS community to encourage statewide improvement based on data findings.	• EMS	• Post Crash Care
• **Tactic 2.4:** Engage with the Statewide Trauma Advisory Council and Office of EMS to adjust care and reset standards for EMS as needed.	• EMS	• Post Crash Care
• **Tactic 2.5:** Continue to investigate how the level of certification of the EMS provider impacts care outcomes and determine how to best support EMS professionals. Improve recruiting initiatives, specifically among young people, to address the workforce shortage. Support EMTs and paramedics as public health professionals.	• EMS	• Post Crash Care
• **Tactic 2.6:** Consider involvement in the EMS Compact Law which allows EMS practitioners with a valid, unrestricted EMS license in one Compact Member State to have a "Privilege to Practice" recognized in all Compact Member States.	• EMS	• Post Crash Care
• **Tactic 2.7:** Investigate the impact of alternate innovative care delivery models, including community paramedicine as a strategy to overall system sustainment and operation impacts to post crash care.	• EMS	• Post Crash Care
Strategy 3: Engage first responders and EMS professionals in traffic incident management		
• **Tactic 3.1:** Conduct interagency traffic incident management (TIM) training for field responders. Integrate TIM training into law enforcement and fire training programs. Identify and train quality instructors from a variety of disciplinary backgrounds. Provide Minnesota-specific online training opportunities.	• EMS	• Post Crash Care
• **Tactic 3.2:** Involve medical examiners, crime labs, and the Bureau of Criminal Apprehension (BCA) in the Open Roads Agreement so examiners agree to make clearing the roadway a priority in the cast of fatal crashes.	• EMS	• Post Crash Care
• **Tactic 3.3:** Follow safe on-scene practices such as safe vehicle positions, emergency-vehicle lighting discipline, high-visibility safety apparel, and traffic control deployment when appropriate. Assist in providing traffic control devices and high-visibility apparel to first responder agencies.	• EMS	• Post Crash Care

Focus Area: Vehicle Safety Enhancements	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Support the research and development of connected and autonomous vehicle (CAV) technology		
• **Tactic 1.1:** Research technology that improves safety and mobility. Continue to pilot CAV technology related to transit, freight, work zones, and CAV communication technology (C-V2X).	• Vehicles	• Safe Vehicles
• **Tactic 1.2:** Conduct a safety review of all MnDOT fleets and evaluate opportunities for technology modifications to improve vehicle safety and modify risky driver behaviors. Enhance MnDOT and state fleet equipment with technology that has confirmed benefits in safety, including intelligent speed assist to limit speeding in government vehicles.	• Vehicles	• Safe Vehicles
• **Tactic 1.3:** Participate in national efforts and pooled funds to support the development of connected and autonomous vehicle technology, safety standards, and best practices.	• Vehicles	• Safe Vehicles
Strategy 2: Share CAV knowledge with other researchers and the public		
• **Tactic 2.1:** Document and publish research projects related to CAV and vehicle safety and share internally and broadly across the country. Conduct industry and academic outreach on CAV.	• Vehicles	• Safe Vehicles
• **Tactic 2.2:** Provide CAV education and exposure to the public through pilot demonstration programs and educational campaigns.	• Education	• Safe Vehicles • Safe Road Users
Strategy 3: Prepare policy and planning initiatives for connected and autonomous vehicles.		
• **Tactic 3.1:** Assess readiness of roadway assets and geospatial data to determine future needs and gaps related to CAV technology. Develop a process for real-time, accurate work zone and incident information from 511 to be communicated with connected vehicles.	• Engineering	• Safe Vehicles • Safe Roads
• **Tactic 3.2:** Review planning guidelines to determine alignment with CAV technology and identify needs and gaps within these guidelines.	• Engineering	• Safe Vehicles • Safe Roads
• **Tactic 3.3:** Build future policies upon lessons learned from both MnDOT and others' research on CAV and vehicle safety. Prepare policies and programs to achieve desired CAV outcomes.	• Vehicles	• Safe Vehicles
Strategy 4: Develop standards and policies to encourage safe vehicle design		

Focus Area: Vehicle Safety Enhancements	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 4.1:** Advocate and work with National Highway Traffic Safety Administration (NHTSA) to develop standards for vehicle design that prioritize vulnerable road user safety, such as size and profile regulations. Research and develop safety policies for electric and hybrid vehicles, which can be quieter and heavier and pose unique safety risks to vulnerable road users.	• Vehicles	• Safe Vehicles
• **Tactic 4.2:** Encourage the implementation of vehicle safety features such as adaptive cruise control, forward-collision warning and automated emergency braking, blind spot monitoring, driver-attention monitoring, lane departure warning and lane-keeping assist, and bicyclist and pedestrian detection. Discourage the implementation of distracting "infotainment" systems in vehicles.	• Vehicles	• Safe Vehicles • Safe Road Users
• **Tactic 4.3:** Advocate the research of new crashworthiness testing standards for electric vehicles, which can be heavier and have a different weight distribution than gas vehicles.	• Vehicles	• Safe Vehicles
Strategy 5: Educate drivers about personal vehicle maintenance for safety		
• **Tactic 5.1:** Develop educational campaigns to encourage drivers to check windshield wipers, tire pressure, and tire tread at the beginning of each season. Encourage preventative car maintenance and regular inspection of brake systems, engine and/or battery, suspension and steering, etc, to reduce incidents related to vehicle malfunction.	• Education	• Safe Vehicles • Safe Road Users

Focus Area: Management Systems	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Use a safe system approach as the basis for transportation system planning and implementation.		
• **Tactic 1.1:** Follow guidance from the Advisory Council on Traffic Safety (ACTS) as a driving force for traffic safety legislature needs.	• Other	•
• **Tactic 1.2:** Utilize the Safe Systems Approach Implementation Plan (SSAIP). Identify performance measures and evaluate the implementation of Safe System Approach on a regular basis.	• Other	•
• **Tactic 1.3:** Promote the Highway Safety Improvement Program (HSIP) and other funding sources for cost-effective construction projects that reduce fatalities and serious injuries on all public roads.	• Engineering	• Safe Roads
• **Tactic 1.4:** Encourage cities and counties to develop Comprehensive Action Plans (CSAPs) to leverage available Safe Streets and Roads for All (SS4A) federal grant funding. Provide resources to support the development of these plans and grant applications.	• Engineering	• Safe Roads
Strategy 2: Continue to use methods that already work and make them more effective when possible.		

Focus Area: Management Systems	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 2.1:** Continue efforts to improve education and enforcement strategies. Educational campaigns paired with high visibility enforcement initiatives targeted at driver behaviors such as seat belt use, distracted driving, alcohol-impaired driving, speeding, and aggressive driving are proven to reduce these behaviors.	• Education • Enforcement	• Safe Road Users
• **Tactic 2.2:** Build near-term roadway safety improvements to sufficient resiliency standards. Resilient safety improvements have longer-term safety benefits than low-cost quick-build improvements but are not always pursued due to cost concerns.	• Engineering	• Safe Roads
• **Tactic 2.3:** Find more ways to link traffic safety into existing public health work (i.e., substance prevention, driving under the influence) and provide funding for that work. Include public health offices such as the Office of American Indian Health to address disparities that exist in traffic safety with maximum impact. Include public health officials in the analysis and interpretation of traffic safety data to interpret trends through another lens and help show the intersection of traffic safety with public health.	• Other	•
• **Tactic 2.4:** Encourage asset management that maintains the effectiveness of safety assets on the roadway such as lighting, signage, pavement markings, signals, and rumble strips. Inspect and maintain these assets routinely to maintain safety benefits. Encourage local agencies to develop asset management databases and policies in line with the Minnesota Advisory Council on Infrastructure established in July 2024.	• Engineering	• Safe Roads
• **Tactic 2.5:** Encourage local agencies to develop asset management databases and policies in line with the Minnesota Advisory Council on Infrastructure established in July 2024.	• Engineering	• Safe Roads
• **Tactic 2.6:** Improve legislation for traffic incident management to facilitate effective EMS response to severe crashes. Consider "Steer It/Clear It" legislation, which encourages drivers to move operational vehicles out of the travel lane post-crash. Consider improvements and statewide expansion to the Hold Harmless/Authority Removal policy, which allows public agencies to remove vehicles blocking travel without civil liability.	• EMS	• Post-Crash Care
Strategy 3: Train safety professionals who are involved with safety planning and incident response on best practices		
• **Tactic 3.1:** Continue to provide safety training at the local level through Local Road Traffic Safety and County Road Traffic Safety workshops.	• Engineering	• Safe Roads
• **Tactic 3.2:** Encourage the pursuit of Road Safety Professional (RSP) 1 and 2 certifications for roadway professionals involved in safety work.	• Engineering	• Safe Roads

Focus Area: Data Management	Four E's of Traffic Safety	Safe System Approach Element(s)
Strategy 1: Facilitate system interoperability between agencies/partners.		
• **Tactic 1.1:** Catalogue available data sources from county, city, and state agencies in a library and publicize this library so duplicates are not created.	• Engineering, Enforcement, EMS	•
• **Tactic 1.2:** Improve the linking of data between crash, vehicle, driver, roadway, citation/adjudication, and EMS/injury surveillance through the development of the Road Safety Information Center.	• Enforcement, EMS	•
• **Tactic 1.3:** Create consistent data sharing agreements and automated data sharing between agencies.	• Engineering, Enforcement, EMS	•
Strategy 2: Improve traffic incident management data collection and analysis		
• **Tactic 2.1:** Evaluate opportunities for efficient crash data reporting and aggregating with automated data fields for incident locations, incident timelines, responding agencies, recovery times, queue lengths, travel times/delays, speeds, etc. Identify limits and find solutions to improve the reporting of secondary crashes, responder involved, near-miss events, and other crash data fields of interest. Develop a brief training module for these fields if changes are made.	• Engineering, Enforcement, EMS	•
• **Tactic 2.2:** Use analytics tools such as Regional Integrated Transportation Information System (RITIS) and software-as-a-service combined with custom analytics and dashboards which aggregate incident data with crowd-sourced probe data such as HERE, Waze, and Streetlight to easily interpret traffic incident management outcomes.	• Engineering, Enforcement, EMS	•
Strategy 3: Reduce barriers to data sharing that will help proactively address safety while maintaining privacy.		
• **Tactic 3.1:** Reduce barriers to sharing Personal Identifiable Information (PII) health data related to crash severity between the Department of Health, MnDOT, and the Department of Public Safety while still protecting personal privacy.	• Engineering, Enforcement, EMS	•
• **Tactic 3.2:** Reduce barriers to acquiring citation, adjudication, and probation data to support enforcement and evaluate recidivism, including identifying prosecutors, judges, and officers associated with recidivism.	• Enforcement	• Safe Road Users

Focus Area: Data Management	Four E's of Traffic Safety	Safe System Approach Element(s)
• **Tactic 3.3:** Continue to investigate phone-handling data sources and more continuous sharing of data to support enforcement.	• Enforcement	• Safe Road Users
Strategy 4: Fill known data gaps to support the effectiveness of safety initiatives.		
• **Tactic 4.1:** Conduct a statewide inventory of all safety elements (roundabouts, J-Turns, high-tension cable median barrier, etc.) to better track existing gaps and future maintenance requirements. Engage with asset management professionals to assess database improvements that would benefit roadway safety project development.	• Engineering	• Safe Roads
• **Tactic 4.2:** Conduct an inventory of safety education initiatives and effectiveness. Maintain a database of these initiatives and the resources used.	• Education	• Safe Road Users
• **Tactic 4.3:** Provide funding for sustained staffing for MNTrauma data management and analysis. MNTrauma data complements the traffic data management center information for prevention, response and safety decisions.	• EMS	• Post-Crash Care
Strategy 5: Enhance and utilize data through the use of big data and emerging tools.		
• **Tactic 5.1:** Incorporate data analytic tools such as artificial intelligence (AI), machine learning, and language learning models to increase the speed of data analysis and blend data sets without much effort.	• Other	•
• **Tactic 5.2:** Use data science to identify new countermeasures and programs to reduce severe crashes and evaluate their effectiveness.	• Other	•